Credit and Savings Systems in Artisanal Fisheries in Ghana

1. Mauritania
2. Senegal
3. Cape Verde
4. The Gambia
5. Guinea Bissau
6. Guinea
7. Sierra Leone
8. Liberia
9. Côte d'Ivoire
10. Ghana
11. Togo
12. Benin
13. Nigeria
14. Cameroon
15. Equatorial Guinea
16. Gabon
17. Sao Tome and Principe
18. Congo
19. Zaire
20. Angola
Credit and Savings Systems in Artisanal Fisheries in Ghana

by

Alabi Bortey
Assistant Director, Fisheries Department
Accra, Ghana
THE VISION FOR IDAF PHASE III

INTRODUCTION

Development strategy during the 1960 and 1970s was based on the philosophy that developing countries lacked improved technology and capital for speeding up their development. Industrialization was promoted in order to capitalize on the abundant fish resources. However, the anticipated expansion of the economy did not happen and the development approach shifted towards an integrated rural strategy where emphasis is put on the community as a whole to upgrade incomes and the quality of life through technical assistance and the active participation of fisherfolk and the community.

In this context, emphasis was initially placed on the Community Fishery Centre (CFC) concept as a means of promoting artisanal fishery development. But it became apparent that the presence of a complex of facilities and services tailored to meet local needs was no guarantee that the structures/facilities would be used or that development would occur. The active participation of fisherfolk and the mobilisation of local and community resources was imperative in order to assure sustainability of initiatives undertaken by development projects and/or the community.

So far and in general terms, the IDAF Programme has worked under the context of abundant or seemingly adequate fishery resources with moderate population pressure. The scenario is however changing (and very fast for that matter) and we would soon face the triple constraints of reduced or depleting fish stocks, degrading environment and increasing population pressure. Like in other sectors, it must be anticipated that just to survive, parts of the population surplus in the fishing communities will enter the artisanal fisheries, which will increase the competition for the resources among the small scale fisherfolk in addition to the prevailing competition between the artisanal and industrial fisheries, with their attendant effect on the environment.

This scenario calls for a continuation of the integrated participatory strategy which remains relevant to the development of artisanal fisheries in West Africa. However, the emphasis needs to be placed on the elements and mechanisms that favour the sustainability of initiatives: responsible fishing, the empowerment processes that ensure the devolution of major resource management and development decisions to the local community, the strengthening of national human and institutional capacities at all levels for a sustainable and equitable fisheries resources management and development, as well as in the follow-up and consolidation of past achievements.

DEVELOPMENT OBJECTIVE

Thus the development objective of the Programme in the present phase III which started on 1 July 1994 is to ensure twenty coastal West African countries a sustainable development and management of their artisanal fisheries for maximum social and economic benefit of their fishing communities in terms of employment, proteins and earnings. This will be done through an integrated and participatory approach in which emphasis will be laid on equity, gender issues, the transfer of technology for development, environment protection, as well as the strengthening of human and institutional capacities.
The immediate objectives are:

1. To identify, assess and disseminate strategies and mechanisms for sustainable management and development of the artisanal fisheries in fishing communities;

2. To improve the competence of national Fisheries Departments staff in development and management planning of artisanal fisheries;

3. To enhance regional technical competence in the fisheries disciplines, particularly in fishing and fish technology;

4. To improve information and experience exchange related to artisanal fisheries within the region;

5. To promote regional and sub-regional collaboration for the development and management of artisanal fisheries

In this context, IDAF will among other things tackle the following major aspects in its work:

- assisting in the elaboration and implementation of a clear and coherent national development policy for the artisanal fishery sector;

- providing advice on management and allocation of resources between artisanal and industrial fishing fleets, both national and foreign;

- involving users in the design and management of on shore infrastructures;

- monitoring the sector's evolution by the setting up of an economic indicator system for the sector adapted to the financial and human availabilities;

- improving fishing technologies in accordance with the available resources;

- increasing the final product's value by improvement in processing and marketing;

- promoting community development in accordance with the lessons learned from Phase I and II and oriented towards the sustainability of actions undertaken;

- reinforce the Programme’s information/communication system.

It is anticipated that by the end of the third phase of the Project, the region will have a nucleus of field oriented experts capable to respond to the challenges of the artisanal fisheries sector and to spur development in their individual countries in keeping with the aspirations and needs of fisherfolk.
EXECUTIVE SUMMARY

The unavailability of credit and savings has been identified as one of the main factors militating against the development of artisanal fisheries and preventing artisanal fisheries from being integrated into the emerging market economies of the ECOWAS sub-region. Additionally, the policy environment surrounding banks discourages the development of new lending systems, especially those in countries implementing Structural Adjustment Programmes. Financial institutions increasingly shift from lending to artisanal fisheries because of the high risk associated with fishing due to depleting stocks.

The issue of credit to artisanal fisheries is of primary concern to IDAF and other agencies interested in the development of artisanal fisheries. Therefore, the IDAF Programme financed a study on credit and savings schemes in artisanal fisheries in Ghana. The objectives of the study are to review past and present credit and savings schemes and make realistic recommendations for the improvement of funding systems in artisanal fisheries.

Although activities of fish processors and traders were taken into consideration, this study mainly focuses on artisanal fishermen. Interviews and consultations were carried out with relevant institutions and organizations engaged in financial intermediation in artisanal fisheries as well as with fishermen, fish processors and traders.

The Agricultural Development Bank (ADB) has been and is still contributing immensely to the development of artisanal fisheries by providing credit in the form of fishing inputs such as outboard motors and premixed fuel. However, their performance is constrained by the bank's inability to recover the loans issued. As a result, these schemes show high default rates and artisanal fishermen's access to institutional credit is gradually declining.

Fishermen, fish processors and traders regard private funding systems as more reliable and accessible than public funding systems. At the same time they argue that private funding systems are not adequate. The reciprocal credit arrangements between fishermen, fish processors and traders which are used mainly to finance operational expenses, are regarded as the most important source of finance to the artisanal fisheries. However, this crucial source of finance could be undermined if fishermen fail to make significant catches.

Savings by fishermen are highly seasonal. Generally, savings are mobilized during the main fishing season, while most of them are exhausted during the lean season. Savings mobilization by apex fishermen's organizations are found to be ineffective as their activities are mainly oriented towards input distribution.

In extending credit to artisanal fishermen, mutual benefit organizations such as cooperatives and credit unions have not been able to make the desired impact. NGOs have achieved some measure of success in extending credit to fish processors and traders groups. The general observation is that groups initiated and nurtured in the mobilization of personal savings for their own benefit and later linked to external sources of funding with training in book-keeping and group maintenance are relatively more successful than groups formed solely to gain access to external funding.
Existing public and private finance systems could be more effective with certain interventions at a macro level. First, facilitating the recovery and the sustainable management of fisheries resources in order to ensure a continuing supply of fish to fishermen needed to meet their obligations towards fish processors and traders. In the face of limited resources, fish processors and traders should be supported in fishing and non-fishing related activities.

Second, fishermen should be educated on the importance of making regular savings to enable them get access to credit. In this respect, rural banks should be encouraged to establish daily ‘susu’ collection points and mobile savings schemes along the beaches.

Third, NGOs and other fisheries development agencies should be encouraged to assist in the promotion and development of other sources of income for artisanal fishermen to reduce the pressure on fisheries resources and to help them maintain stable incomes.

Finally, an integrated development approach aimed at improving economic and social needs with special emphasis on new enterprise development, education, public and reproductive health should be adopted in the fishing communities.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARB</td>
<td>Association of Rural Banks</td>
</tr>
<tr>
<td>ASAWA</td>
<td>International Association for the Advancement of Women in Africa</td>
</tr>
<tr>
<td>BOG</td>
<td>Bank of Ghana</td>
</tr>
<tr>
<td>CEDECOM</td>
<td>Central Regional Development Commission</td>
</tr>
<tr>
<td>CEWEFIA</td>
<td>Central and Western Region Fishmongers Association</td>
</tr>
<tr>
<td>CUA</td>
<td>Credit Union Association</td>
</tr>
<tr>
<td>DOF</td>
<td>Department of Fisheries</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>Economic Community of West African States</td>
</tr>
<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
</tr>
<tr>
<td>FERMU</td>
<td>Foreign Exchange Reserve Management Unit</td>
</tr>
<tr>
<td>FFHC/AD</td>
<td>Freedom From Hunger Campaign/Action for Development Programme</td>
</tr>
<tr>
<td>GCB</td>
<td>Ghana Commercial Bank</td>
</tr>
<tr>
<td>IDAF</td>
<td>Integrated Development of Artisanal Fisheries in West Africa</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GEPC</td>
<td>Ghana Export Promotion Council</td>
</tr>
<tr>
<td>GNAFF</td>
<td>Ghana National Association of Farmers &amp; Fishermen</td>
</tr>
<tr>
<td>GNCFC</td>
<td>Ghana National Canoe Fishermen Council</td>
</tr>
<tr>
<td>GOG</td>
<td>Government of Ghana</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>PNDC</td>
<td>Provisional National Defense Council</td>
</tr>
<tr>
<td>mt</td>
<td>metric ton</td>
</tr>
</tbody>
</table>
## ANNUAL EXCHANGE RATES

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Bank Exchange Rates of Cedis to 1US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>202.34</td>
</tr>
<tr>
<td>1989</td>
<td>270.07</td>
</tr>
<tr>
<td>1990</td>
<td>326.28</td>
</tr>
<tr>
<td>1991</td>
<td>367.73</td>
</tr>
<tr>
<td>1992</td>
<td>437.09</td>
</tr>
<tr>
<td>1993</td>
<td>648.94</td>
</tr>
<tr>
<td>1994</td>
<td>956.75</td>
</tr>
<tr>
<td>1995</td>
<td>1199.98</td>
</tr>
<tr>
<td>1996</td>
<td>1653.83</td>
</tr>
<tr>
<td>1997</td>
<td>1955.91*</td>
</tr>
</tbody>
</table>

* Average Exchange rate on 30\textsuperscript{th} April 1997

Source: FERMU Bank of Ghana
# TABLE OF CONTENT

1 INTRODUCTION

1.1 Financial Intermediation in Artisanal Fisheries 1
1.2 Fisheries Sector in Ghana 1
1.3 Objective of the Study 2

2 METHODOLOGY

2.1 Scope of the Study 3
2.2 Research Methods 3
2.3 Limitations of the Study 3

3 SAVINGS AND CREDIT FACILITIES IN ARTISANAL FISHERIES 3

3.1 Capital Needs of Artisanal Fishermen 3
3.2 Review of Past Institutional Credit Schemes 4
  3.2.1 Charter Party Scheme 4
  3.2.2 Agricultural Development Bank 5
    3.2.2.1 Credit to Artisanal Fishermen (1965-1969) 5
    3.2.2.2 Commodity Credit or Group Lending Scheme (1969-1991) 6
    3.2.2.3 Fishing Input Credit Scheme (1991-present) 7
  3.2.3 Rural Banks 8
3.3 Review of Current Savings and Credit Schemes 9
  3.3.1 Cooperative Mutual Benefit Societies 10
    3.3.1.1 M.K. Abbey Savings and Credit Centre 10
    3.3.1.2 Western Region Cooperative Fishermen’s Association 11
    3.3.1.3 Ghana Cooperative Credit Union Association 12
  3.3.2 Institutional Credit provided by Non Governmental Organizations 13
  3.3.3 Non-established financial institutions 15
    3.3.3.1 Fish Processors and Traders 15
    3.3.3.2 Other Providers of Loans 16

4 SUMMARY OF OBSERVATIONS AND RESULTS 17

5 RECOMMENDATIONS 18

REFERENCES 19

Annex I Average Marine Fish Production (1983-1995) 20
Annex II Current Fixed Costs per Fishing Unit in Elmina 21
Annex III Distribution and Sale of Outboard Motors by ADB 22
Annex IV ADB Premixed Fuel Financing Scheme 23
Annex V Shark Fin Export from Ghana 24
INTRODUCTION

1.1 Financial Intermediation in Artisanal Fisheries

Financial intermediation in the small scale sector and in the artisanal fisheries sub-sector in particular operates through both formal and informal credit channels. However, in recent times formal lending institutions, out of economic rationality lent only to low risk sectors of the economy, eliminating the agricultural sector, especially the fisheries sub-sector which has become more risky due to over-exploitation and depleting fish stocks. Additionally, the policy environment surrounding banks appears to encourage conservatism and discourage the development of new lending instruments. In this respect it is not strange that informal financial arrangements are predominant in small scale agriculture. As the name implies, the Agricultural Development Bank (ADB) and rural banks are the most important formal sources of small-holder credit (IFAD, 1989). A rural bank operates in the rural communities and specializes in the extension of credit to small peasant farmers, fishermen, cottage industries operators, and merchants. In addition to these banks, some credit unions and cooperative societies operate in the rural financial market.

Lack of access to institutionalized credit has been identified as one of the major factors limiting artisanal fishermen to expand their activities and to integrate into emerging market economies of the ECOWAS sub-region. Indeed, credit to artisanal fisheries has received little attention in the preparation of development plans by governments. In view of the importance of acquiring knowledge on credit issues in artisanal fisheries in Ghana and other countries in the region, the IDAF Programme financed this study.

1.2 Fisheries Sector in Ghana

The fisheries sector comprises a diverse and vigorous spectrum of activities, ranging from artisanal to industrial, and exploiting pelagic and demersal fish stocks in rivers, reservoirs, coastal lagoons, shallow seas, and off-shore up to the limits of the 200 nautical miles EEZ. The total annual fish production is close to 400,000 mt, of which 85% comes from marine sources. The remaining is coming from inland fisheries and aquaculture. The current demand for fish is approximately 700,000 mt. Except for tuna, fisheries resources are nearly maximally exploited. The contribution of the fisheries sector to GDP has been estimated at 1.5%, corresponding to 5% of the Agricultural GDP (GOG, 1993).

Fish and fisheries products are some of the most important non-traditional exports. In 1995, the export of fish and fisheries products was valued at US$41.6 million, representing 26.1% of the total traditional export of US$159.6 million (GEPC, 1996). Fish remains the cheapest and most common source of animal protein to the average Ghanaian. The consumption per capita is estimated at 25 kilo per annum.

Government policy on the fisheries sector aims at increasing fish production from both marine and inland sources to meet the growing demand both domestically and from abroad, in a manner consistent with healthy environmental practices, and long-term sustainability of resources. Poverty alleviation in fishing communities is also an important point on the agenda.
Marine artisanal fisheries is made up of dugout canoes carved out of the “wawa” tree (Triplochiton scleroxylon). There are 8,641 canoes of which about 5,076 are motorized with 25 and 40 hp out-board motors, operating from 264 landing sites in 200 fishing communities along the coast of Ghana (DOF, 1995). The sub-sector produces between 70-80% of the annual marine catch (see Annex I) and accounts for over 95% of annual landings of pelagics. The total annual landings of small pelagics range between 220,000 mt and 280,000 mt. Available data indicate that from the present level of exploitation, the small pelagic resource is over-exploited. The rate of decline of these species which started in 1993 is an indication of the dwindling stock size. The artisanal fisheries sub-sector engages 101,741 full-time fishermen with nearly 1.5 million dependents (DOF 1995). Various types of fishing gear are used, namely poli/watsa/ali, drift gillnet, bottom set gillnet, beach seine and hook and line.

Anchovy is the most important species targeted by the artisanal fleet throughout the year. The annual landing of anchovy is about 76,000 mt out of which 1,000-1,500 mt is used as bait for tuna. The larger part is smoked or dried for human consumption, the local poultry industry and for export to neighboring countries.

The huge increase in prices of fishing inputs is having an effect on small fisheries economies. The investment cost of a 32 metre dugout canoe increased from $1 million in 1990 to $4.5 million in 1996 (DOF, 1996). The investment cost of a purse seine fishing unit has gone up from $4.2 million in 1992 to $18.0 million in 1997 (see annex II). This is attributed to the competing demand from abroad, from local loggers and millers in the construction industry, and to depleting forest resources.

The household size in artisanal fisheries is relatively large. The number of wives for each fisherman is from 1 to 5. The number of dependents is from 3 to 26 (Koranteng, 1990). This is exerting undue pressure on the income generated mainly from fishing and their inability to make regular savings.

Inland fisheries is based on the resources of the Volta Lake, river and its tributaries, reservoirs, and dugouts and lagoons. The Volta Lake covers 934,400 hectares of a total inland water surface of about 1,009,000 hectares. The annual yield in inland fisheries is between 55,000 and 60,000 tons. About 90% of the catch comes from the Volta Lake, which supports about 80,000 fishermen, fish processors and traders. Aquaculture involves small scale pond culturists of tilapia and catfish. The current production is about 400 mt per year.

1.3 Objective of the Study

The objectives of this study are the following:

- To describe the main elements of the past and current credit and savings schemes
- To review and analyze experiences of the schemes
- To present lessons learned and findings
- To make realistic recommendations for the improvement of financing systems.
2 METHODOLOGY

2.1 Scope of the Study

The study covers both formal and informal savings and credit arrangements, NGOs, fishermen, fish processors and fish traders in the Greater Accra, Central, Western and Volta Regions.

2.2 Research Methods

The following methods of data collection have been used:

a) Review of literature from secondary sources, such as FAO, IDAF and DOF publications
b) Consultation and in-depth interviews with the relevant personnel in savings and credit institutions (Agricultural Development Bank, Rural Banks, cooperative societies), including some NGOs
c) In-depth interviews with key actors in informal savings and lending institutions
d) Group discussions with fishermen, fish processors and fish traders

2.3 Limitations of the Study

The official response on request for information was not very encouraging due to the bureaucratic system and the delay in getting information from financial institutions and other organizations, taking cognizance of the limited time available for the study.

Furthermore, records of the modus operandi of some savings and credit institutions which have collapsed were not available. The Ghana Cooperative Fisheries Association which was vibrant in the late 1960s and early 1980s is virtually dormant because supply of fishing inputs by public institutions has been stopped. In some of the institutions, the responsible officers have left and documents could not be traced.

3 SAVINGS AND CREDIT FACILITIES IN ARTISANAL FISHERIES

3.1 Capital Needs of the Artisanal Fisheries Sub-sector

Since the organizational structure and functional practice of credit and savings systems highly depends on the specific needs of a certain sector, capital needs in artisanal fisheries are presented in Table 1.
### Table 1  
**Capital Needs in Artisanal Fisheries**

<table>
<thead>
<tr>
<th>Fixed Assets</th>
<th>Working Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishermen</td>
<td></td>
</tr>
<tr>
<td>- canoe</td>
<td>- fuel</td>
</tr>
<tr>
<td>- fishing gear</td>
<td>- ice</td>
</tr>
<tr>
<td>- engine</td>
<td>- bait</td>
</tr>
<tr>
<td>- ice box (hook and line)</td>
<td>- costs of repairs and maintenance</td>
</tr>
<tr>
<td>- food</td>
<td></td>
</tr>
<tr>
<td>Fish Processors</td>
<td>- wood</td>
</tr>
<tr>
<td>- racks</td>
<td>- salt</td>
</tr>
<tr>
<td>- oven</td>
<td>- fish supply</td>
</tr>
<tr>
<td>- shelter</td>
<td>- labour</td>
</tr>
<tr>
<td>- tank</td>
<td></td>
</tr>
<tr>
<td>Fish Traders</td>
<td>- packing material</td>
</tr>
<tr>
<td>- means of transport</td>
<td>- labour</td>
</tr>
<tr>
<td>- means of preservation</td>
<td>- transport costs</td>
</tr>
</tbody>
</table>

### 3.2 Review of Past Institutional Credit Schemes

#### 3.2.1 Charter Party Scheme

**Description of the credit scheme**

Institutional financial support for the fishing industry dates back to 1955. In this year the Gold Coast Government introduced the Charter Party Scheme. The Charter Party scheme was meant (a) to support the promotion of the canoe motorization programme of the government and (b) to reduce exploitative tendencies of the informal financial sector. The scheme was in the form of a revolving fund, administered by the loans section of the Fisheries Department. In order to revolutionize the fishing industry, loans were given to individuals and cooperative societies for the purchase of twenty-seven footer fishing boats equipped with inboard engine and outboard engines for canoe fishermen.

**Disbursement procedures and repayment procedures**

The Ghanaian Ministry of Finance bought the outboard engines and DOF was entrusted with the distribution of the engines and the disbursement and repayment of the loans. Beneficiaries were required to deposit 20% of the cost of an outboard engine at DOF. DOF signs a charter agreement (or a hire purchase agreement) with the fisherman. The remaining 80% had to be repaid by monthly installments spread over a period not exceeding two years, at an interest rate of 6% per annum. Fishermen all along the Ghanaian coast were supposed to make their payments at DOF in Accra. DOF would then pass the money to ADB.
Review and analysis of the experiences of the scheme

The Charter Party Scheme was abolished in 1965 due to the high rate of default on loan repayment. The loans section of the DOF did not have the capacity to recover the loans, which caused the collapse of the scheme. In case of default, DOF hardly took action. To both, DOF and artisanal fishermen, the loan was a debt to the government (who were mainly interested in the motorization of the artisanal fishing fleet), and they did not bother to repay. In 1965, the scheme was transferred to the ADB.

Lesson learned

An institutional credit scheme should have an effective loan recovery mechanism to avert high defaulting rates among beneficiaries. The centralized repayment system is also regarded as one of the causes of collapse.

3.2.2 Agricultural Development Bank

The Agricultural Development Bank (ADB) was established by the Ghanaian Government in 1965 to provide financial and related services to farmers, fishermen, agricultural processors and other customers whose activities add value to the agricultural component of Ghana’s GDP. The ADB also engages in commercial banking, including foreign operations and all other financial intermediation permitted by the PNDC Banking Law 225.

A general condition for the issuing of any loan is the acceptance of an economic, technical, and market feasibility study of the project, and assurance of the management competency of the applicant by the bank. The bank also requires a collateral security in the form of fixed assets, savings and deposits. Since its inception in 1965 the bank has operated three main credit schemes which have benefited artisanal fisheries operators. They are:

• Credit to artisanal fishermen inherited from the DOF, 1965-1969
• The Commodity Credit or Group Lending Scheme, 1969-1991
• Fishing Input Credit Scheme, from 1991-present.

3.2.2.1 Credit to Artisanal Fishermen (1965-1969)

Description of the credit scheme

The scheme had no special dispensations in the operations of the bank. The general conditions of the bank prevailed for any artisanal fisherman who applied for a loan. In situations where there was no property such as land, buildings, fishing vessels, or property with title, a property pledge was accepted by the bank.

Disbursement and repayment procedures

The loan was disbursed if the technical, financial and economic viability of the project was acceptable to the bank. Preference was given to known customers whose financial position is known to the bank. In the case of artisanal fishermen, a property pledge was accepted in case of default.
Review and analysis of experiences of the scheme

In the case of the Charter Party Scheme, disbursed loans were guaranteed by the DOF. When this function was ceded to the bank, the Department stopped guaranteeing loans and left the repayment to fishermen's own responsibility. Fishermen were unable to provide the collateral (savings and property) which excluded them from the banks' eligible clients.

Lessons learned

A credit scheme, where rigid banking procedures dominate, is not appropriate to artisanal fishermen. They find it difficult to meet the bank's criteria for creditworthiness (property and savings requirements).

3.2.2.2 Commodity Credit or Group Lending Scheme (1969-1991)

Description of the credit scheme

In response to the difficulty of fishermen to meet collateral needs, the bank introduced the Commodity Credit or Group Lending Scheme. Under this scheme only group loans were disbursed. A minimum of five fishermen was needed to form a group, comprising a chairman, a secretary and a treasurer. The group was held jointly responsible for loan repayment by its members.

Disbursement and repayment procedures

The disbursement of loans took place either in cash or as a direct payment to the supplier of fishing equipment and material. In the case of outboard engines that were available at the DOF, an eligible fisherman was required to pay 10% of the approved loan sum as a feasibility and commitment fee plus an insurance cover of 8%. The latter was borne by the bank and taken from the fisherman's account. The same applies to the net balance of 90% with an annual interest rate of 26.5%. Credit for capital items, such as a canoe or an outboard engine was to be repaid within two years, with three months grace period. The repayment period for working capital was three months. In case of a disaster at sea loans were rescheduled.
Review and analysis of experiences of the scheme

The scheme did make access to credit by artisanal fishermen easier. Whereas other sectors had to pay 40% of the loan up-front, fishermen only made a down payment of 10% of the loan and enjoyed a rebate interest rate of 26.5% compared to 30% for personal loans. With a recovery rate of 80%, the default rate on loan repayment in this scheme was relatively low. This can be explained by social pressure due to the “group collateral” required. Records indicate that between 1986 and 1987, out of a total of 4500 units of out-board engines distributed, 1800 units were sold to artisanal fishermen on a hire-purchase basis through the group loan scheme.

However, a major constraint encountered in the early 1980s was the gross abuse of the Group Lending Scheme by Branch Managers of the bank. They used their friends and relatives to secure loans which were never repaid. This necessitated the upward review of the minimum number of the group to ten which is more difficult to mobilise.

Lessons learned

The system of using group collateral reduced the high default rate among artisanal fishermen because of the social pressure exerted on defaulting group members. However, group loans without further collateral requirement became highly susceptible to fraud by “insiders”, such as bank managers.

3.2.2.3 Fishing Input Credit Scheme (1991-present)

Description of the credit scheme

The Fishing Input Credit Scheme evolved from the Group Lending Scheme. In this scheme credit in kind is disbursed to fishermen through recognized fishermen’s societies, such as the Ghana National Canoe Fishermen Council (GNCFC) and the Ghana National Association of Farmers and Fishermen (GNAFF) which are the apex organizations of the fishermen’s societies. Credit in kind consists of outboard engines and premixed fuel.

Disbursement and Repayment procedures

In July 1996, the Ghanaian Government introduced premixed fuel for outboard engines in artisanal fisheries. Fishermen were expected to purchase the premixed fuel and operate distribution dumps at the landing sites. Fishermen must organize themselves and contact an oil company to establish a fuel station. By opening a bank account at the ADB and making an initial deposit of between 10-25% of the loan, they get access to credit in order to purchase the premixed fuel. Fishermen’s societies running their own fuel station can be found in Tema, Gbese and Nungua.

Following the recommendations of the GNCFC and the GNAFF, outboard engines are sold to fishermen on a hire-purchase basis. Fishermen must open a bank account and deposit 60% of the total cost of the engine. The balance must be paid within a year.
Review and analysis of experiences of the scheme

From 1992 to 1996, a total of 2,558 units of outboard engines have been imported by the bank, out of which 1,733 (67.7%) was sold on credit. Comparing this figure to the 1,800 outboard engines sold in 1986-1987, the number of fishermen benefiting from credit facilities from the ADB is gradually declining (see annex III). Field visits confirm the decrease in support to artisanal fishermen. Some of them are using outboard engines of up to 10 years old. According to the fishermen interviewed the 60% down payment is prohibitive and the procedure for securing the credit facility is quite cumbersome. From August 1996 to February 1997, the ADB branches at Cape Coast, Swedru, Adabraka, Kaneshie, Teshie, and Denu gave out credit to artisanal fishermen to a total value of $165,300,000 and fishermen contributed $41,400,000 to procure 423,000 litres of premixed fuel (see Annex IV).

Lessons learned

The low propensity to save among artisanal fishermen limits their ability to meet the conditions of the bank to get a loan.

3.2.3 Rural Banks

The rural banking system started in Ghana in 1976 with 31 banks. By December 1996, the number of rural banks increased to 126.

The objective of the rural banks is to mobilize savings in rural communities and to provide credit and other services to the customers. Rural banks are established at the initiative of the community and managed by a Board of Directors. Its area of operation must be around 35 kilometres. The community is expected to prepare a feasibility study to be approved by the Bank of Ghana. They must as well provide an office and an initial contribution of $30 million serving as starting capital. Recruitment of staff is done by the Association of Rural Banks with the consent of the Bank of Ghana. The Board of Directors is selected by the Annual General Meeting of the members.

Description of the credit scheme

Rural banks do not run schemes that specifically focus on fishermen but the banks are, by statute, supposed to give 45% of the total credit disbursed to agriculture, including the fisheries sub-sector. Industries should be allocated 30%, and 25% issued to others. The banks also provide credit for the procurement and sale of premixed fuel.

Disbursement and repayment procedures

Loan applications are appraised by the bank for economic and financial viability. Eventually, the Board of Directors approves or disapproves the application. Applicants must have two guarantors who are public servants. The interest rate for agricultural credit, including the fisheries sector, is 38%.
Review and analysis of experiences of the scheme

As at 30 September 1996, 81 rural banks had collectively mobilized ₦30 billion in deposits and had given out 13.8 billion cedis in loans and other advances. Ten of these rural banks are located along the coast, but their contribution to the artisanal fisheries sub-sector over the past six years has only been between 1.5 and 11.5% per annum of the total agricultural credit (Table 2). Personnel of rural banks lack the means to really assess this. However, the total amount of credit available to artisanal fisheries is expected to increase due to the introduction of premixed fuel.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Credit to Agricultural Sector</th>
<th>Credit to Fisheries</th>
<th>Credit Fisheries/Total Credit Agricultural Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>861.63</td>
<td>99.7</td>
<td>11.57%</td>
</tr>
<tr>
<td>1991</td>
<td>1314.3</td>
<td>58.2</td>
<td>4.42%</td>
</tr>
<tr>
<td>1992</td>
<td>2019.2</td>
<td>65.2</td>
<td>3.2%</td>
</tr>
<tr>
<td>1993</td>
<td>2811.2</td>
<td>70.8</td>
<td>2.51%</td>
</tr>
<tr>
<td>1994</td>
<td>3919.8</td>
<td>60.6</td>
<td>1.54%</td>
</tr>
<tr>
<td>1995</td>
<td>1367.6</td>
<td>92.5</td>
<td>6.76%</td>
</tr>
<tr>
<td>1996</td>
<td>1482.3</td>
<td>107.5</td>
<td>7.25%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13776.05</td>
<td>554.5</td>
<td>4.02%</td>
</tr>
</tbody>
</table>

Source: Agricultural Development Bank

Lessons learned

Though rural banks operate within fishing communities, the total credit extended to artisanal fisheries is quite low. Rigid banking procedures do not permit a real assessment of the feasibility of fishermen’s activities.

3.3 Review of Current Savings and Credit Systems

In the artisanal fisheries sector a wide variety of finance systems are currently operational. However, it appears that fishermen have access to a wider spectrum of institutional finance sources than fish processors and traders. The main sources of finance for fishermen, fish processors and traders are listed, in order of importance, in Table 3.
Finance systems that are currently operational in the artisanal fisheries sector can be classified according to the source of finance:

- Private internally motivated, such as one’s own resources, savings and fixed capital
- Private externally motivated, such as institutional credit funds from NGOs, informal reciprocal credit arrangements between fishers, processors and traders and loans from local money lenders, family members and friends
- Public funding made up of institutional credit from the banks

### 3.3.1 Cooperatives and Mutual Benefit Organizations

This study concentrates on two main types of savings schemes, the internally and externally motivated schemes. The internally motivated savings schemes emerge out of one’s own conviction to build up capital for replacement of fishing equipment, materials and other personal commitments. However, a study on the use of capital income in artisanal fisheries shows that personal savings built up in the main fishing season completely dissipate during the lean season (Yeboah, 1997). Fishermen save in their homes, banks and ‘susu’ or daily saving schemes. One prominent ‘susu’ scheme encountered in the study was the M.K. Abbey Savings and Credit Centre.

#### 3.3.1.1 M.K. Abbey Savings And Credit Centre

**Description of the savings scheme**

M.K. Abbey Savings and Credit Centre was started in 1988 as a ‘susu’ scheme, at James Town Beach. Its main objective was to meet fishermen’s, fish processors’ and traders’ need to save. Its clients are mainly women. Later, M.K. Abbey opened two branches at Chorkor which is another heavily populated fishing community in Accra. It is a member of the Greater Accra Susu Collectors’ Association. In order to regulate their operations and to safeguard contributions, members of this association agreed to deposit the mobilized savings at the Ghana Commercial Bank (GCB).

<table>
<thead>
<tr>
<th>Fishermen</th>
<th>Fish Processors and Traders</th>
</tr>
</thead>
<tbody>
<tr>
<td>- loans from women fish processors and traders, including shark fin buyers</td>
<td>- credit from fishermen</td>
</tr>
<tr>
<td>and exporters</td>
<td></td>
</tr>
<tr>
<td>- own resources</td>
<td>- own resources</td>
</tr>
<tr>
<td>- banks, such as ADB and rural banks</td>
<td>- banks and moneylenders</td>
</tr>
<tr>
<td>- family members and friends</td>
<td>- government and non-governmental organizations</td>
</tr>
<tr>
<td>- moneylenders</td>
<td>- CEDECOM, ASAWA</td>
</tr>
<tr>
<td>- quasi-government sources, such as the Central Regional Development</td>
<td></td>
</tr>
<tr>
<td>Commission, CEDECOM and service centres</td>
<td></td>
</tr>
</tbody>
</table>
Savings mobilization and utilization procedures

The deposit ranges from €500 to €20,000. The month’s contribution less a day’s is paid on request to the contributor. The day’s contribution is the centre’s commission. Credit facilities are also granted to regular customers especially fishers to meet their operational cost and purchasing of fishing nets. It also provided for domestic obligations, school, and health services. They don’t always collect their savings at the end of the month, some accumulate it until when they need the funds.

Review and analysis of experiences of the scheme

The number of clients of M.K. Abbey Credit and Savings Centre varies from 300 to 2000. This variation is due to the seasonal nature of the fishing activities. The peak period is from June to December and the lean period from January to May. During these seasons the number of contributors increases or decreases. Well known and reliable clients have access to loans without interest. Although repayment may be behind schedule, the default rate is very low.

Lessons learned

The contributors are very enthusiastic about the scheme. It can be referred to as the most practical and successful savings and credit scheme along the coast. Its location is practical and financial services are readily available and flexible. People trust the centre because Mr. Abbey has been operating there for more than seven years without any breach of contract or embezzlement of savings.

3.3.1.2 Western Region Cooperative Fishermen Service Centres Union

Another way artisanal fishermen save money is by affiliating to mutual benefit organisations, such as cooperatives and credit unions. These mutual benefit associations require beneficiaries of their funding systems to be paid-up members of the association, be prepared to abide by the association’s regulations, to procure a minimum share capital, and to regularly deposit savings at the association over a minimum period of six months. Whereas credit unions disburse loans to their members, cooperatives provide both loans and risk guarantees. This section describes the activities of the Western Region Cooperative Fishermen Service Centres Union.

Description of the credit scheme

The Western Region Cooperative Fishermen Service Centres Union was formed in 1985. It covers fourteen (14) primary communities. It was meant to serve as the mouth piece of all fishermen and fishmongers in the region. The main objective is the collection and distribution of fishing inputs from the DOF of the Ministry of Food and Agriculture to the members.

Savings mobilization and utilization procedures

The main source of income is the monthly dues of €2,000 per fisherman and a marginal commission levied on fishing inputs distributed by the Union to meet handling and administration costs. These are no savings, but contributions. There is no interest on the provision of fishing
inputs on credit. The main condition for getting fishing inputs on credit is the approval of the chief
fisherman. Repayment rates are high.

Review and analysis of experiences of the scheme

Currently the Union has eight reselling points for premixed fuel at Furko, Adjoa, Sekondi,
Abuesi Abuadze, Busua, Half Assini and Dixcove, at a cost of about 6 million cedis each. In
addition, they operate a store in Sekondi where they sell lead, floats, nets, and twines.

Lessons learned

The monthly dues of 2000 is grossly inadequate to finance the cooperative’s activities.
The government distributes fishing inputs through the cooperative to be repaid after the inputs
have been sold. Loan repayment rates are high, mainly due to the involvement of the chief
fisherman and, consequently, the social pressure to repay.

3.3.1.3 Ghana Cooperative Credit Union Association (CUA)

Description of the credit scheme

The Ghana Cooperative Credit Union Association (CUA) is a voluntary self-help
organization of people united by a common bond who agree to save their money together and
make loans to one another at low rates of interest for both productive and provident purposes

People living in the same community, belonging to the same profession or church group
may form a Credit Union. The advantages of a Credit Union includes regular savings, access to
loans, financial counseling, relatively low rates of interest, dividend rebate and access to
loans/savings insurance schemes. The group must have a minimum membership of 50 and a
potential membership of 200.

Savings mobilization and utilization procedures

CUA had credit from the Canadian Cooperative Association at an interest rate of 38-44%.
This was used as a revolving fund for disbursement to the societies.

Review and analysis of experiences of the scheme

a. Chorkor Fish Mongers Cooperative Society
The Chorkor Fish Mongers Cooperative Society had 64 members. After an initial
contribution and regular savings with CUA, CUA granted them a loan of 1 million in
1991. This society did not repay. Following intervention from the executive of the
Greater Accra Chapter, another loan of 900,000 was issued to the Society in 1993. This
loan has also not been repaid. The Society collapsed and is now defunct.

b. Great Koromatse Fish Processors Cooperative Union
This cooperative union was formed in 1993 with an initial membership of 43 women.
After meeting the conditions of CUA, they were given a loan of 2.4 million in 1993.
After honouring their financial obligations, they were given 6.0 million in 1996, which
they also repaid. In early 1997, the members requested the dissolution of the society, after
discovering that the book-keeper embezzled the funds.

c. Simpa Cooperative Fish Processors Society

The Simpa Cooperative Fish Processors Society is a group of fish processors based in
Winneba and started operating with CUA in 1993. It has a membership of 85 women. The
registration fee for new members is ₡50,000 and the weekly contribution is ₡5,000. In
1994 CUA gave each member a loan of ₡500,000. This amount was increased to
_barang in 1996. However, repayment is a problem. By the time this report was written
loans had not been paid.

Lessons learned

The problem of non-repayment of loans persists even in mutual benefits groups which
have had support from external facilitators. This unfortunate phenomenon must be attributed to
the unwillingness of some members to honour their debts. Moreover, social pressure to repay
loans is limited since it is not their own money they borrow. Consequently, default does not
directly affect the other members of the group.

3.3.2 Institutional credit provided by non-governmental organizations

Description of the funding system

The operation of credit schemes by NGOs tends to be more focused on women fish
processing/trading groups than on fishermen’s groups. The main objective of NGOs providing
credit is to introduce women to the use of appropriate technology in fish processing and to
improve their living conditions.

NGOs act as external motivators and facilitate by animating beneficiaries to form mutual
benefits associations. They assist target groups to organize themselves to improve access to credit
in cash or in kind and to open bank accounts. They also train beneficiaries to keep records and
accounts.

The following NGOs operating credit schemes in artisanal fisheries were studied: (a)
Freedom from Hunger Campaign/Action for Development Programme (FFHC/AD)-FAO and (b)
the International Association for the Advancement of Women in Africa (ASAWA)

The FFHC/AD programme was launched by the FAO in 1959. Since then it has been
FAO’s most successful programme of NGO cooperation. The major donors are Danchurch Aid
Gorta, Christian Aid Action for World Solidarity and Development and Peace. Presently, they
work with fish processors at Bortianor, Oshie and Tsokome.

ASAWA started operations in the Central Region of Ghana in 1985. By that time they
were working in ten fishing communities. They were funded by FAO and the Ministry Assisted
Fund from the Canadian Government. The first assistance from ASAWA to fish processors was
provided through the Active Innovation Network based in Switzerland. They contributed money
which served as a collateral for group loans to be obtained at the Ghana Commercial Bank
(GCB). At that time GCB was running the so called “Special Agricultural Loan Scheme”. For the
The purpose of this study, the activities of FFHC/AD at Oshie and the activities of ASAWA were reviewed.

Disbursement and repayment procedures

Apart from the capital base created through group savings, NGOs mobilize group or soft loans from charitable external sources to be disbursed to beneficiaries. In Oshie, beneficiaries in turn received loans ranging from €200,000 to €500,000. In the period 1994-1995, the interest rate varied between 30-40% per annum.

Repayments occur through regular savings schemes. Beneficiaries save over mutually agreed periods of time, usually less than one fishing season, depending on the size of the loan.

Review and analysis of experiences of the scheme

a. FFHC/AD- Oshie

The Oshie Fish Processors Association was started in 1994. Now some of its members have expanded their output from 20-30 crates stored for three months to 100-200 crates stored for over a period of six months. This enables them to take advantage of high prices in the lean season. Apart from the financial services offered, members have been trained in simple book-keeping, home management and basic environmental hygiene.

b. ASAWA

ASAWA activities have initially been very successful but its success eroded when participating communities started defaulting. The default rate ended up being so high that almost all credit facilities to fishing communities ceased. Currently they are only supporting one fishing community, Kromatsi. ASAWA enables them to have access to credit facilities from the Ghana Commercial Bank (GCB) and CEDECOM. CEDECOM is also using this community as a model to promote the use of gas for fish processing. The marketing network of communities supported with credit has expanded tremendously, with traders exporting processed fish to other markets in the ECOWAS sub-region.

Lessons learned

Credit supported with training in book-keeping and group formation and sustenance tends to be successful and sustainable as demonstrated by the case of Oshie. The income levels and community development awareness of beneficiaries has also increased. They have contributed in the improvement of sanitation, the cultivation of a 0.3 ha woodlot, and donated ten bags of cement for the community school block.

3.3.3 Non-Established Institutions

 Whereas fishermen, processors and traders tend to rely on institutional credit (eg. Banks) and local money lenders to finance their fixed costs, their most important source of operating capital is their own informal internal credit arrangements.
3.3.3.1 Fish Processors and Traders

*Description of the credit scheme*

Fish processors and traders, including shark fin exporters, extend credit to fishermen to finance operational expenses. In exchange fish processors and traders are entitled to their catch. The main areas of operation of the exporters are Tema, Kpone, Shama and Axim. They sometimes procure outboard motors and fishing nets and meet other operational expenses of the fishermen in exchange for shark fins.

*Disbursement and repayment procedures*

This credit is extended to known, trusted and creditworthy fishermen with no collateral requirements. Credit provided by fish processors and traders is repaid in kind (in the form of fish) at a discount to the processors, after a successful fishing expedition. Fish processors and traders procuring fish on credit are required to repay within periods ranging from one week (after a market day) to one month. In both cases interest rates are less than 7%, depending on the relationship between fisherman and fish processor or trader. The computed interest is integrated in the price at which fish is sold to the creditor.

*Review and analysis of experiences of the scheme*

These reciprocal credit arrangements have been in operation for a very long time and are regarded by both parties as the most important credit facility available.

*Lessons learned*

Fishermen, fish processors and traders perceive these forward and backward reciprocal credit arrangements as their most important funding source. The pre-financing system by exporters used to provide fishermen with fishing inputs and ready market, but this buoyant system is collapsing due to the fall in landings of shark as a result of depleting stock and mistrust on both sides. Sharks are now on the list of endangered fish species.

3.3.3.2 Other Providers of Loans

*Description of the arrangement*

Money lenders, family members and friends often provide fishermen with credit in cash for the procurement of fixed capital inputs such as outboard motors and nets, as well as operating capital when required.

*Disbursement and repayment procedures*

Sometimes credit provided by private money lenders is delivered in installments. Input dealers on the other hand deliver inputs to fishermen on credit. Whereas family members, friends and input dealers will not require any collateral, private money lenders accept already existing fishing craft as collateral. Loans from family members and friends are free of interest. Interest
rates from money lenders are very high ranging from 100% - 600% per annum. Repayment periods vary with the fishing season.

Review and analysis of experiences of the scheme

Except credit provided by money lenders, funds from friends, fishing input sellers and family members are easily available. The recovery rate is quite high. Most loans are repaid at the close of the fishing season. There is no appreciable pressure in case of default, except in the case of money borrowed from a money lender.

Lessons learned

Loans disbursed are very beneficial and hardly misappropriated because of the intimacy between the creditors and the fishermen. Creditors are mostly resident in the community and are able to monitor the production of the fishermen and to assess their performance during the fishing season.

4 SUMMARY OF OBSERVATIONS AND CONCLUSIONS

The ADB has been and still is contributing immensely to the development of artisanal fisheries by providing credit in the form of fishing inputs, such as outboard motors and premixed fuel. The unavailability of collateral security has made it almost impossible for an individual artisanal fisherman to get access to credit at the banks. While the group lending scheme improved fishermen’s access to institutional credit, it is also more susceptible to abuse by bank managers.

The poor record of loan repayment which has persisted over the years has adversely affected the confidence of financial institutions to lend to artisanal fishermen. Moreover, current privatization policies have forced financial institutions to lend to sectors of the economy they consider least risky. This has resulted in crowding out the artisanal fisheries subsector which is registering low returns on investment due to escalating costs of inputs and depleting fish stocks. In credit delivery, preference is given to people involved in supporting activities rather than to fishermen who are involved in fish production.

Savings are highly seasonal. They are built up in the major season and lost during the lean season. Because of the inability to make consistent and regular savings, cooperatives and credit unions have not been able to make the desired impact in extending credit to fishermen. The apex fishing organizations are inputs distribution oriented and are thus not effective in mobilizing savings.

However, it is interesting to note that fishermen, as well as fish processors and traders recognize private funding systems as more important to them than public funding systems. They regard reciprocal credit arrangements between fishermen, processors and traders as their most reliable, accessible and sustainable source of credit.

The major constraint of the system is that misunderstandings occur when fishermen fail to make significant catches and are unable to fulfill their obligations. Consequently, they stay
indebted for a long time. Additionally, funds obtained by fishermen from fish processors/traders to finance their operating costs are often grossly inadequate.

In the case of mutual benefit organizations, groups initiated and nurtured in the mobilization of personal savings and later linked to public sources tend to be relatively more successful than groups formed out of promise for external or public funding. These groups disintegrate immediately when the promises are not fulfilled. Funding systems based on the latter case tend to be relatively unsustainable.

NGOs are playing a very important role in credit delivery and community development. However, their operations are limited to female processors and traders and funds provided are not adequate to meet the increasing demands of these groups.

5 RECOMMENDATIONS

The most reliable funding system which has sustained the local fishing industry is the financial arrangements between fishermen, fish processors and traders. This crucial source of finance could be undermined if fishermen fail to make significant catches. Thus the issue of maintaining the resource base is of prime importance, so all efforts should be made in managing the resource base sustainably.

With limited resources, the most important interventions should be directed at supporting the activities of fish processors and fish traders, and sources of additional income.

The fishermen should also be educated on the importance of making regular bookkeeping and savings to make access to credit easier. Rural banks should be encouraged to establish daily 'susu' collection points and mobile savings schemes along the beaches.

NGOs and other fisheries development agencies should assist in the promotion and development of other sources of income for artisanal fishermen to reduce the pressure on fisheries resources and maintain stable income.

Finally, an integrated development approach aimed at improving the economic and social needs of fisherfolk, with special emphasis on new enterprise development, education and reproductive health, should be adopted in the fishing communities.
REFERENCES

Agricultural Development Bank

Association of Rural Banks

Bank of Ghana
(i) FERMU
(ii) Rural Finance Department

Central and Western Region Fish Mongers Association (CEWEFIA)

DOF - Canoe Frame Survey 1995

DOF - The Fisherman Vol.1 No.2

F.A.O./FFHC/AD

Ghana Cooperative Fishermen Association

Ghana Cooperative Credit Union Association (CUA)

Ghana Export Promotion Council

Ghana National Canoe Fishermen Council

International Association for the Advancement of Women in Africa (ASAWA)

M.K. Abbey Savings and Credit Centre

Odoi-Akersie, W. - Socio-economic study of credit facilities available to Ghana Migrant Fishermen

Western Region Co-operative Service Centre

Yeboah Doris - Study on Costs and Earnings in Artisanal Fisheries in Ghana
### Annex I  
**Average Marine Fish Production (1983-1995)**

<table>
<thead>
<tr>
<th></th>
<th>Average Landings 1983-1995 (mt)</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artisanal Fisheries</td>
<td>217.7</td>
<td>75.2</td>
</tr>
<tr>
<td>Inshore Fleet</td>
<td>11.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Deep Sea Fleet</td>
<td>27.0</td>
<td>9.4</td>
</tr>
<tr>
<td>Tuna Fleet</td>
<td>32.7</td>
<td>11.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>289.3</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: DOF

### Annex II  
**Current Fixed Costs per Fishing Unit in Elmina (in cedis)**

<table>
<thead>
<tr>
<th></th>
<th>Canoe&lt;br&gt;(x 01,000)</th>
<th>Motor&lt;br&gt;(x 01,000)</th>
<th>Fishing Gear&lt;br&gt;(x 01,000)</th>
<th>TOTAL&lt;br&gt;(x 01,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purse Seine</td>
<td>4,500,000</td>
<td>4,500,000</td>
<td>9,000,000</td>
<td>18,000,000</td>
</tr>
<tr>
<td>Beach Seine</td>
<td>3,500,000</td>
<td>-</td>
<td>5,000,000</td>
<td>8,500,000</td>
</tr>
<tr>
<td>Hook &amp; Line&lt;br&gt;Ordinary</td>
<td>2,500,000</td>
<td>4,500,000</td>
<td>200,000</td>
<td>2,700,000</td>
</tr>
<tr>
<td>Hook &amp; Line&lt;br&gt;Lagas</td>
<td>2,500,000</td>
<td>4,500,000</td>
<td>500,000</td>
<td>7,500,000</td>
</tr>
<tr>
<td>Bottom Set gilnet</td>
<td>600,000</td>
<td>-</td>
<td>600,000</td>
<td>1,200,000</td>
</tr>
</tbody>
</table>

### Annex III  
**Distribution and Sale of Outboard Motors by ADB**

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>Unit Costs (x €1,000)</th>
<th>Cash Sales (x €1,000)</th>
<th>Credit Sales (x €1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>850</td>
<td>995</td>
<td>278</td>
<td>572</td>
</tr>
<tr>
<td>1993</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1994</td>
<td>758</td>
<td>2300</td>
<td>111</td>
<td>647</td>
</tr>
<tr>
<td>1995</td>
<td>250</td>
<td>3680</td>
<td>45</td>
<td>205</td>
</tr>
<tr>
<td>1996</td>
<td>400</td>
<td>3990</td>
<td>91</td>
<td>309</td>
</tr>
</tbody>
</table>

Source: ADB
Annex IV  ADB Premixed Fuel Financing Scheme

<table>
<thead>
<tr>
<th>Branches</th>
<th>Quantity of Fuel (litres)</th>
<th>Total Value (x $1000)</th>
<th>Credit from ADB (x $1000)</th>
<th>Deposits from Fishermen’s Associations (x $1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Cape Coast</td>
<td>139,500</td>
<td>67,600</td>
<td>57,300</td>
<td>11,300</td>
</tr>
<tr>
<td>Central Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Swedru</td>
<td>54,000</td>
<td>26,400</td>
<td>20,800</td>
<td>5,600</td>
</tr>
<tr>
<td>Greater Accra Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Kaneshi</td>
<td>81,000</td>
<td>39,600</td>
<td>29,100</td>
<td>10,500</td>
</tr>
<tr>
<td>- Adabraka</td>
<td>18,000</td>
<td>8,800</td>
<td>6,800</td>
<td>2,000</td>
</tr>
<tr>
<td>- Tema</td>
<td>103,500</td>
<td>50,600</td>
<td>40,600</td>
<td>10,000</td>
</tr>
<tr>
<td>- Teshi</td>
<td>18,000</td>
<td>8,800</td>
<td>7,800</td>
<td>1,000</td>
</tr>
<tr>
<td>Volta Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Denu</td>
<td>9,000</td>
<td>4,600</td>
<td>3,900</td>
<td>500</td>
</tr>
<tr>
<td>TOTAL</td>
<td>423,000</td>
<td>206,800</td>
<td>165,300</td>
<td>41,400</td>
</tr>
</tbody>
</table>

Source: ADB

Annex V  Shark Fin Export from Ghana

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (in US$)</th>
<th>% Contribution to Total Non Traditional Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>179,345</td>
<td>0.62</td>
</tr>
<tr>
<td>1991</td>
<td>178,770</td>
<td>0.53</td>
</tr>
<tr>
<td>1992</td>
<td>97,447</td>
<td>0.44</td>
</tr>
<tr>
<td>1993</td>
<td>206,515</td>
<td>0.79</td>
</tr>
<tr>
<td>1994</td>
<td>148,842</td>
<td>0.38</td>
</tr>
<tr>
<td>1995</td>
<td>43,522</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Source: GEPC
LISTE DES RAPPORTS DIPA - LIST OF IDAF REPORT

I. Documents techniques / Technical documents


Gulbrandsen, O.A., Preliminary account of attempts to introduce alternative types of small craft into West Africa. Cotonou, IDAF Project, 51p., IDAF/WP/3.


Vétillart, R., Rapport détude préliminaire sur l'aménagement d'un abri pour la pêche maritime artisanale à Cotonou, Projet DIPA, 31p., DIPA/WP/11.

Van Hoof, L., Small-scale fish production and marketing in Shenge, Sierra Leone. Cotonou, IDAF Project, 36p., IDAF/WP/12.


Anon., Compte-rendu de la deuxième réunion des officiers de liaison du DIPA. Cotonou, Projet DIPA, 27p., DIPA/WP/16.


Everett, G.V., West African marine artisanal fisheries. Cotonou, IDAF Project, 41p., IDAF/WP/22, 1988


Demuynck, K., and DETMAC Associates, The Participatory Rapid Appraisal on perceptions and practices of fisherfolk on fishery resource management in an artisanal fishing community in Cameroon. Cotonou, IDAF Project, 32p., IDAF/WP/60

Demuynck, K., et les associés-de DETMAC, Méthode Accélérée de Recherche Participative sur les perceptions et pratiques des pêcheurs en matière de gestion des ressources halieutiques dans une communauté de pêche au Cameroun. Cotonou, Projet DIPA, 33p., DIPA/WP/60


Kamphorst, B., A socio-economic study on the distribution and marketing pattern of marine fish products in the Ndian division, South West Province, Republic of Cameroon. Cotonou, IDAF Project, 41p., IDAF/WP/62


Stamatopoulos C., Rapport de l'atelier sur l'utilisation du logiciel de statistiques des pêches (ARTFISH). programme pour le développement intégré des pêches artisanales en Afrique de l'Ouest (DIPA), Cotonou, Benin. 59p., DIPA/WP/82


Sow, A., Curso de formação sobre a organização de uma biblioteca. Programa para o Desenvolvimento Integrado das Pescas Artesanais na Africa Ocidental (DIPA). Cotonou, Benin. 35p. + annexos, DIPA/WP/86


Williams, S., Rôle Economique des Femmes dans les Communautés de Pêche: Le Cas de Koko Cotonou, 1996

N'jie, M., and Jones, R., People's Participation and Sustainability Aspects in the fisheries project of Yeji, 1996


Anon., Rapport de la dixième Réunion des Fonctionnaires de Liaison, Lomé, Togo, 9 - 10 décembre 1996.


Horemans B. and Jallow A.M., Present State and Perspectives of Marine Fisheries Resources Co-
Management in West Africa, Programme for the Integrated Development of Artisanal
Fisheries in West Africa, Cotonou, Benin, 22p., IDAF/WP/104

Horemans B., et Jallow A.M., Etat actuel et perspectives de la co-gestion des ressources halieutiques en
Afrique de l'Ouest. Programme pour le Développement Intégré des Pêches Artisanales en
Afrique de l'Ouest, Cotonou, Benin, 25p., DIPA/WP/104

Kébé, M., Anato C.B. et Gallène J., Revue sectorielle de la pêche artisanale au Bénin. Programme pour le
Développement Intégré des Pêches Artisanales en Afrique de l'Ouest (DIPA), Cotonou,
Bénin, 50p., DIPA/WP/105

Programme for the Integrated Development of Artisanal Fisheries in West Africa (IDAF),
Cotonou, Benin, 23p., IDAF/WP/106

Yeboah D.A., Utilisation du Revenu sur Capital dans les Pêches Artisanales: une étude de cas des Armateurs
de Elmina, Ghana. Programme pour le Développement Intégré des Pêches Artisanales en
Afrique de l'Ouest, Cotonou, Benin, 24p., DIPA/WP/106

II. Manuels de terrain / Field Manuals

Johnson, J.P. et M.P. Wilkie. Pour un développement intégré des pêches artisanales; du bon usage
de participation et de la planification. Cotonou, Projet DIPA, 157p. + annexes, Manuel de
Terrain N° 1.

Meynall, P. Johnson, and M.P. Wilkie, Guide for planning monitoring and evaluation in fisheries

III. IDAF Newsletter / La Lettre du DIPA

IDAF Newsletter/Lettre du DIPA, 1, October/Octobre 1985, 4 p.
IDAF Newsletter/Lettre du DIPA, 6, September 1987, 58 p.
IDAF Newsletter/Lettre du DIPA, 9, October/Octobre 1989, 84 p.
IDAF Newsletter/Lettre du DIPA, 10, August/Août 1990, 84 p.
IDAF Newsletter/Lettre du DIPA, 12, April/Avril 1991, 8 p.
IV. Documents de travail du Projet Modèle, Bénin / Working papers of the Model Project, Benin


Coackley, A.D.R., Installation d'un moteur diesel "inboard" dans une pirogue ghanéenne. Cotonou, Projet Modèle, 9 p. + annexe, PMB/WP/1 (Fr).


1991
