

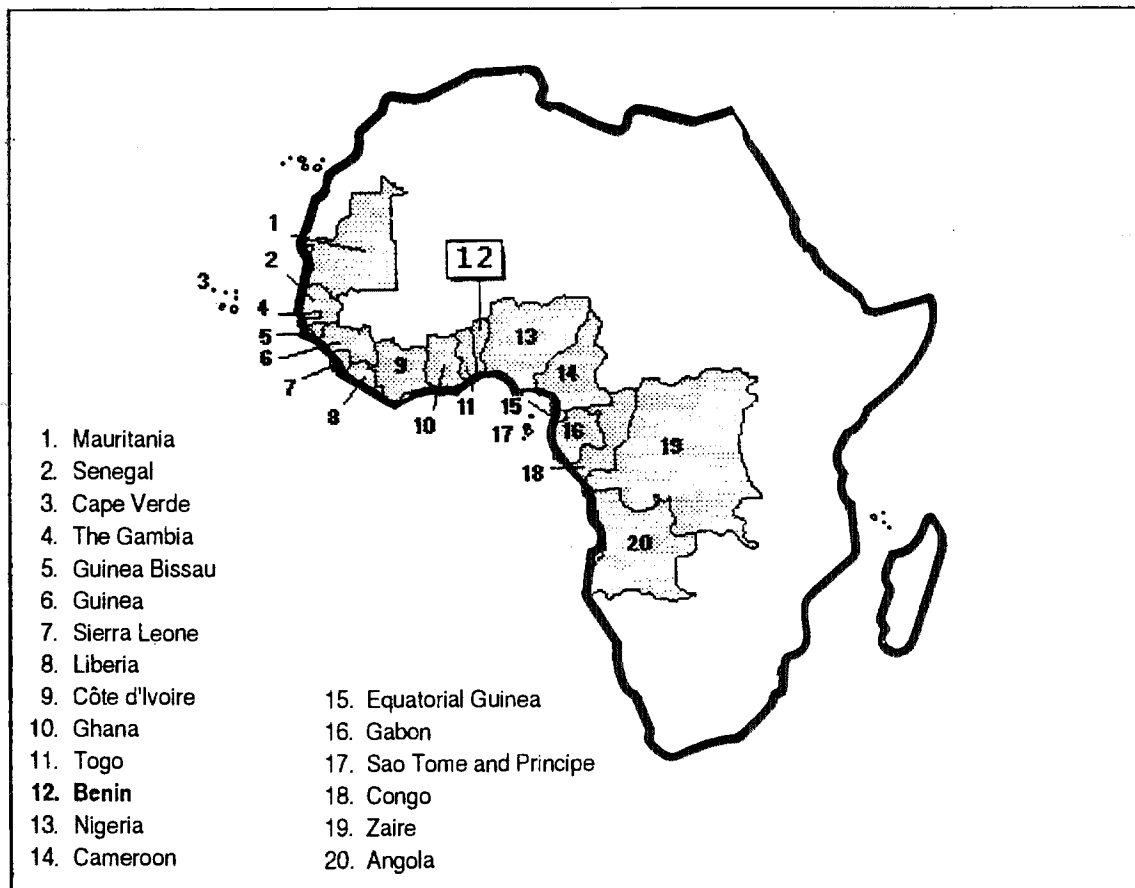
PROGRAMME FOR INTEGRATED DEVELOPMENT OF
ARTISANAL FISHERIES IN WEST AFRICA

IDAF PROGRAMME

Technical Report N° 118

november 1997

**Workshop on Socio-Economic Aspects of
Artisanal Fisheries in West Africa**
(Douala, Cameroon, 17-21 November 1997)



DANIDA

DEPARTMENT OF INTERNATIONAL DEVELOPMENT COOPERATION OF DENMARK



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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**Workshop on Socio-Economic Aspects of
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(Douala, Cameroon, 17-21 November 1997)

by

B.W. Horemans
Officer-In-Charge

and

A.M. Jallow
Socio-Economist, IDAF

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IDAF Programme
FAO
P.O. Box 1369
Cotonou, Republic of Benin

E-mail: dipafao@bow.intnet.bj

Fax: (229) 33.05.19

Tel: (229) 33.09.25

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.

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INTRODUCTION

A thorough understanding of the socio-economic situation of artisanal fishing communities has become essential for planning fisheries development and management. It is particularly important for the improvement of the standard of living of fisherfolk, which is a vital objective that is frequently cited by governments. The improvement can, however, be incompatible, with other objectives like creating employment, increasing fish production to satisfy local markets, generating foreign exchange through export, or maximising economic benefits from the sector.

This is why, since the beginning of the third phase, the IDAF Programme decided to pay special attention to these aspects.

In March 1994, that is three months before the beginning of the third phase, the IDAF Programme organised the first meeting of the Working Group on Capital Needs and Availability in Artisanal Fisheries. The participants were economists, having experience and particular interest in the financing of artisanal fisheries. During the eighth Meeting of the Liaison Officers in Pointe Noire, Congo, in November 1994, the participants had the opportunity to review the results of the two case studies which had been analysed in October by the Working Group (IDAF/WP/65).

Fiscal policy aspects have likewise constituted the subject of thorough examination. In this respect, two case studies were conducted (IDAF/WP/90) as well as an analysis of the theoretical and practical implications of subsidies (IDAF/WP/91). Moreover, the IDAF NewsLetter N°23 of September 1994 was devoted to the impact of the devaluation of the franc CFA in countries in the sub-region.

The twelve-month study on costs and earnings of the principal types of fishing units started in 1995 after the first Meeting of the Working Group which was convened for this purpose (IDAF/WP/72). The methodology had been developed and tested from January to December 1994, at the port of Cotonou, Benin (IDAF/WP/67). After the follow-up meeting in 1996, to which reference was made during the tenth Meeting of the Liaison Officers in Lomé, Togo, in December 1996, the third meeting of the Working Group was able to analyse in 1997 the results of the field studies in nine countries in the sub-region (IDAF/WP/100, IDAF/WP/103). One of the recommendations of the participants in the meeting was the execution of studies on costs and earnings of fish processors and fishmongers (IDAF/WPP/108). Aspects of the income of women in fishing communities had also been addressed in 1994 in Cameroun (IDAF/WP/62) and in 1996 in Nigeria (IDAF/WP/94).

A topic of concern is the use of income which boat-owners get from their professional activities. This constituted the subject of two case studies (IDAF/WP/92), IDAF/WP/106).

Two studies on savings and credit systems in artisanal fisheries have also been conducted (IDAF/WP/107, IDAF/WP/115).

Finally, it is worth noting that the Programme devoted effort in promoting the collection of reliable socio-economic information during the realization of the supervised field surveys that it helped Fisheries Authorities to carry out in Cameroun (1995, IDAF/WP/75), in Sao Tomé & Principe (1995, IDAF/WP/68), in Togo (1996, IDAF/WP/102), in Congo (1996), in the

Democratic Republic of Congo (1996, IDAF/WP/101), in Benin (1997, IDAF/WP/109) in Guinea Bissau (1997), in Guinea (1997) and in Gambia (1997).

The choice of the theme for the workshop “Socio-economic Aspects of Artisanal Fisheries in West Africa” is therefore the result of continuous and systematic investigative work since 1994 in this area by the IDAF Programme in collaboration with its numerous partners in the sub-region. Figure 1. schematically shows the relationship between the different socio-economic studies carried out by the Programme.

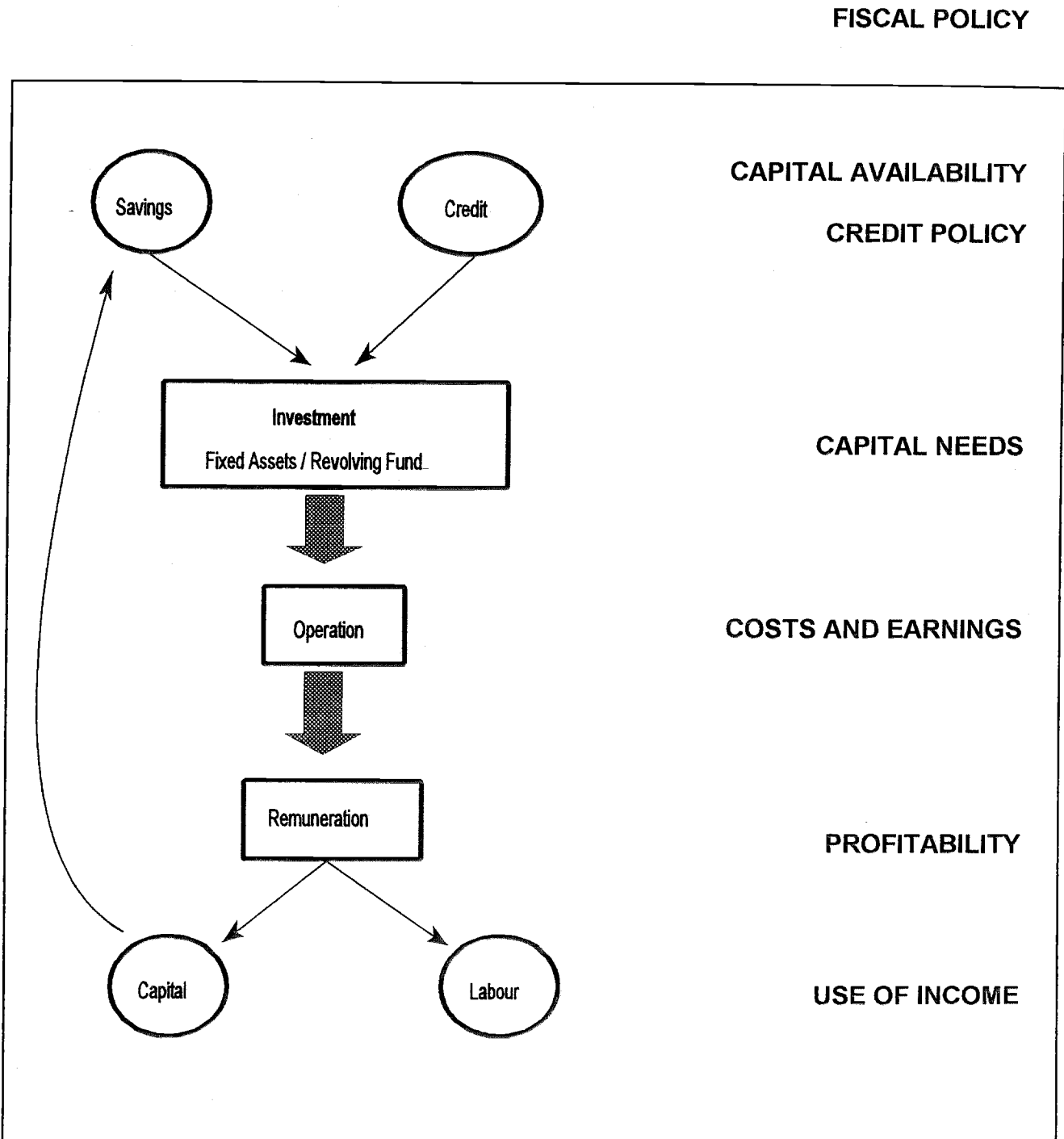
The purpose of the workshop is to establish the state of knowledge on the socio-economic situations of the different operators in artisanal fisheries in West Africa. The principal authors of the studies of reference, conducted since 1994, have been invited, as well as boat-owners, fish processors and fishmongers.

The expected results of the workshop are (i) an analysis of the available data/information on the socio-economic situation of artisanal fishing communities, (ii) concrete recommendations for the sustainable improvement of their living and working conditions, (iii) a critical discussion of the methodology used in the field studies, (iv) suggestions for follow-up actions.

The documents presented hereafter are meant to facilitate the discussions during the workshop. These are just brief syntheses of the studies which have been or are in the process of being published by the Programme. The priority was given to the presentation of the principal results of the studies.

FIGURE 1.

FINANCIAL FLOW IN ARTISANAL FISHERIES



Report of the Workshop on Socio-economic Aspects of Artisanal Fisheries in West Africa

1. Since 1994 the IDAF Programme set up Working Groups on capital Needs and Availability, Costs and Earnings Studies, and the Role of Women. Members of these Working Groups conducted studies on capital needs and availability, fiscal policies, use of boat-owners income, and savings and credit in Ghana and Senegal ; costs and earnings of fishing units in 9 countries; and costs and earnings in processing and marketing in Nigeria, Guinea and Côte d'Ivoire respectively. The reports of the studies and an IDAF review of the implications of subsidies in artisanal fisheries are the working documents for the workshop.
2. After a brief presentation by the Secretariat of the studies on capital needs and availability in artisanal fisheries as the foundation for the subsequent studies, the moderator of the workshop, Alhaji Jallow, IDAF socio-economist, explained the methodology developed by IDAF and utilized in the cost and earnings studies.
3. Costs and earnings studies in Guinea, Ghana, and Senegal were presented by the respective national study coordinators. They all revealed from their results that artisanal fishing is profitable and there is a possibility for artisanal fishermen to save. They also showed the influence of high fuel costs and depleting resources on profitability of artisanal fishing operations.
4. The results presented on the use of boat-owners income in Ghana and Senegal showed that artisanal fishermen do earn profit and generally earn enough to cover their fixed and variable costs. It was also shown that the problems of the boat-owners are lack of financial management skills to cater for the lean season and the replacement of capital equipment, and their use of money depreciation as personal income.
5. The studies on costs and earnings of fish processors and fish traders in Nigeria, Côte d'Ivoire and Guinea show that the profitability of fish processing and fish trading are high, depending on fish species utilized, the degree of processing, the supply of fish, access to markets, and technology used. Apart from spending their income on household and social obligations, such as food, education, clothing, and ceremonies, women re-invest a significant part of their profit in fishing or fishing-related activities. Savings and contributions to different informal agencies help women to control their income and expenditure.
6. IDAF identified subsidies in the artisanal fisheries development policies of some countries in the region. These are mainly in the form of duty-free pre-mixed fuel and tax waiver on fishing nets and outboard engines. The fiscal policy studies conducted in Senegal show that the subsidies on fuel and fishing materials were introduced to motorize fishing and improve the conditions of the fishermen. The present level of exploitation of the resources and the condition of the fishermen makes the subsidies unnecessary, but removing them would affect their revenue and would cause social and political problems. In Ghana the subsidy on fuel was introduced in 1992 and removed in 1994. During the period a lot of fuel was consumed which was not reflected in the landings. That is assumed to have been due to misuse of the facility.

7. The Senegal and Ghana studies on credit and savings describe institutional credit schemes in the two countries. They confirmed the need for institutional credit in artisanal fisheries due to the high investment cost, which cannot be fully covered by informal credit. However, special arrangements should be considered for artisanal fisheries credit schemes because of the characteristics of the subsector, such as the risk in fishing, the seasonality of production, and the migration of fishermen. These particular measures must consider the level of personal contribution(or deposit), the grace period, and the period of repayment.
8. The presenters of the socio-economic studies were congratulated for the quality of their documents and their presentations, which were delivered with visual illustrations.
9. The participants expressed their appreciation on the methodologies utilized in the studies presented during the workshop. They particularly appreciated the very active involvement of the members of the fishing communities in the collection and analysis of the information. They have, however, requested that the surveys on the costs, earnings, and expenditure structure of fish processors and traders be extended to cover a 12 month period in order to take into consideration the seasonal variations.
10. The fishermen representatives validated the results of the costs and earnings surveys. They insisted on the need for savings because of the seasonal character of their activity. They expressed a desire to be trained in simple book-keeping and in small business management in order for them to benefit from the operations of their fishing units and to prepare for an eventual obligation to the banks.
11. The Angolan representative indicated that a study on costs and earnings in the Angolan artisanal fisheries will soon begin in his country. He has, therefore, requested to benefit from the experience of the countries in the region which have successfully introduced the notebooks for recording of revenue and expenses by the boat-owners themselves.
12. Having observed that in a situation of free access to the resources, the case in all the countries of the region, the subsidies on fishing inputs eventually lead to over-exploitation of marine resources, the participants recommended that the fishermen be clearly informed of the objectives and duration of these subsidies when they are an appropriate instrument of development.
13. The participants agreed that instruments more appropriate than subsidies are available and could be utilized in the development and management of artisanal fisheries. It notably involves technological improvements (diesel outboard engines, fish aggregating devices (FAD), improved fuel, etc), a more rational utilization of the tools of production, the construction of necessary infrastructure, and the better management of fishing units and resources.
14. The fishermen present confirmed their lack of confidence in banking institutions, notably for loss of their savings when some banks went bankrupt. They also expressed their willingness to save and described their informal systems which they use as mutual savings, savings and credit cooperatives, and easy access borrowing facilities/banks.

15. The need for intermediary organizations between the banking institutions and individual operators was emphasized. The advantages of these mutual or cooperative credit and savings schemes are numerous: a relationship based on confidence among members of the fishing community, a good knowledge of the operators, and a capacity to collect savings at low cost. They can, therefore, be a privileged intermediary between the national credit institutions for the financing of artisanal fishing. In that respect, the participants recommended that the IDAF Programme seriously studies the case of the Mutual Credit and Savings Unit at Hann in Senegal, and in particular their relationship with their economic operators and with the National Agricultural Credit Bank of Senegal.
16. The participants concluded the different studies with the observation that artisanal fishing is profitable if the units are well managed. They wished that the attitude of fishermen could change. The fishermen should be considered as responsible economic operators, especially in the repayment of credit. The fisheries administrations should consider fishermen as true partners who should be assured equal access to the means of production in the financial markets.
17. The participants were informed of the availability of certain FAO publications on artisanal fisheries credit. Requests on these documents can be sent through the IDAF Programme, which will transmit them to FAO headquarters. The Secretariat informed the participants that the Programme prepared, in the framework of the studies of its Working Group on Capital Needs and Availability, a bibliography of documents related to financing artisanal fishing in West Africa. This bibliography will soon be published in the IDAF Technical Report series.

List of participants at the eleventh Liaison Officers Meeting and at the Workshop

PAYS/ COUNTRY	NOM/ SURNAME	PRENOM/ NAME	TITRE/ TITLE	ADRESSE/ ADDRESS	TEL.	FAX.	E-MAIL
MAURITANIE	MEYMOUN	Mohamed Lemine	Ingénieur, Chef de Service	MDPEM/DP/SPC B.P. 6511 Nouakchott	578.92		
MAURITANIE	MOCTAR NECH	Nedwa	Directrice, ONG MAURITANIE 2000	B.P. 4242 Nouakchott	552.88	546.31	
CAP-VERT	MONTEIRO	Carlos Alberto	Biologiste, Chef Division Statistique, INDP	INDP B.P. 132 Sao Vicente	31.33.30	31.16.12	
SENEGAL	NDIAYE	Ousmane	Chef Division Pêche Artisanale	Direction de l'Océanographie et des Pêche Maritimes 1, Rue Joris B.P. 289 Dakar	821.65.78 821.27.75	821.47.58 821.88.76	
SENEGAL	NDIAYE	Yoró Diaw	Coordonnateur Unité de Pêche Artisanale Crédit Agricole	45, Av. Al. Sarault B.P. 3890 Dakar	839.36.57 839.36.36	822.26.26	
SENEGAL	KEBE	Moustapha	Chef du Bureau d'Analyses Macro Economiques	BAME/ISRA B.P. 3120 Dakar	832.23.13	832.33.61	Kebe@orstom. dakar.sn
GAMBIE	NJIE	Momodou	Fisheries Officer	Fisheries Department 6, Marina Parade, Banjul	22.87.47 22.93.27 22.33.73	22.41.54	
GUINEE-BISSAU	DE BARROS	Domingos	Directeur Générale de la Pêche Artisanale	B.P. 102 Bissau	20.12.73	20.16.84	

PAYS/ COUNTRY	NOM/ SURNAME	PRENOM/ NAME	TITRE/ TITLE	ADRESSE/ ADDRESS	TEL.	FAX.	E-MAIL
GUINEE	DIALLO	Mamadou Oury	Economiste Chercheur	CNSHB, Bousoura B.P. 3738 Conakry	46.44.91		
GUINEE	CAMARA	Fodé Ali	Chef du Centre de Pêche, Kaback	Direction de la Pêche Maritime	FAO BP. 633 Conakry		
GUINEE	TOURE	N'Nah Cissé	Biologiste	Pêche Maritime B.P. 307 Conakry	41.52.27 41.52.28	41.35.23	
LIBERIA	FLOWERS	Isaac	Director of National Fisheries	c/o FAOR Monrovia	22.61.94 22.61.95		
CAMEROUN	SANZHIÉ BOKALY	Raymond	SE/CDPDM	B.P. 1846 Douala	42.46.24	42.40.64	
SIERRA LEONE	FORDE	Alexander Coulson Vidal	Ag. Deputy Director of Fisheries	Marine House OldRailway line Brookfields, Freetown	24.21.17		
COTE D'IVOIRE	KONAN	Angaman	Chef du Projet Pêche Aby	B.P. 84, Adiaké	53.70.29		
COTE D'IVOIRE	KOUAKOU	Yao	Chef Service Statistique	Projet Pêche Lagune Aby B.P. 84 Adiaké	53.70.65		
COTE D'IVOIRE	DOUMBIA	Mamadou	Sous-Directeur des Pêches	Direction de l'Aquaculture et des Pêches B.P. V 19 Abidjan			

PAYS/ COUNTRY	NOM/ SURNAME	PRENOM/ NAME	TITRE/ TITLE	ADRESSE/ ADDRESS	TEL.	FAX.	E-MAIL
GHANA	BORTEY	Alabi	Assistant Director	Dept. of Fisheries P.O. Box 630 Accra	77.60.71 77.60.72	77.60.05	
GHANA	ANYANE	George	AG. Director	Dept. of Fisheries P.O. Box 630 Accra	77.23.02	77.60.05	
GHANA	YEBOAH	Doris	Economist FSCBP	Dept. of Fisheries P.O. Box 630 Accra	77.60.71 77.60.72	77.60.05	
GHANA	BRAIMAH	Lawrence Issah	Project Coordinator IDAF, Yeji	P.O. Box 1628 FAO, Accra	568.22.031	568.22.031	IDAF.YEJI@ africaonline.com
TOGO	DENKE	Abékoué Marius	Directeur de l'Elevage et de la Pêche	B.P. 4041 Lomé	21 36 45	21 71 20	
CAMEROUN	BABA	Malloum Ousman	Directeur Adjoint des Pêches	MINEPIA Yaoundé	31 60 49	22 14 05	
CAMEROUN	BILLE	Isaac	Ingénieur Agro-Haieute Directeur MIDEPECAM	01 B.P. 121 Douala	42.40.33	42.61.97	
CAMEROUN	MBIME	Emmanuel	Pêcheur	B.P. 55 Mouanko	42.72.50		
BENIN	FOUSSENI ALLASSANE	Souradjou	Agent Technique de Développement Rural	Direction des Pêches 01 B.P. 383 Cotonou	33.15.51 33.18.31	33.59.96	

PAYS/ COUNTRY	NOM/ SURNAME	PRENOM/ NAME	TITRE/ TITLE	ADRESSE/ ADDRESS	TEL.	FAX.	E-MAIL
BENIN	AMOUSSOUHBO	Augustin	Pêcheur	B.P. 03-3475 Cotonou	32.43.17 30.54.11		
CAMEROUN	N'DOUMBE	Louis Arthur	Pêcheur	B.P. 48 Kribi	46.17.58		
CAMEROUN	NGIAMBA	Thérèse	Pêcheur	B.P. 112 Kribi			
CAMEROUN	MBENGANG	Pierre Vincent	Pêcheur	B.P. 28 Kribi			
CAMEROUN	BONDJA	Monique	Economiste Chef de Service Recherche Appliquée et Documentation	MINEPIA/DIRPEC Yaoundé	31.60.49	22.14.05	
FAO ROME	PRADO	Joël	Division Industries de la Pêche	FIIT FAO Via delle Terme di Caracalla 00100 Rome (ITALY)	570 54931	570 55188	Joël.Prado@fao.org
FAO ROME	JOINSON	Jan	Division Industries de la Pêche	FIIT FAO Via delle Terme di Caracalla 00100 Rome (ITALY)	6570 54734		Jan.Johnson@ fao.org
DIPA	HOREMANS	Benoît	Chef d'Equipe/ Planificateur des Pêches	DIPA FAO B.P. 01 1369 Cotonou	33.09.25	33.05.19	dipafo@bow. intnet.bj

PAYS/ COUNTRY	NOM/SURNAME	PRENOM/ NAME	TITRE/ TITLE	ADRESSE/ ADDRESS	TEL.	FAX.	E-MAIL
GUINEE EQUATORIALE	BIKORO	Eko Ada	Ing. Technique Pêche	Bioko Norte Malabo	9.2526		
SAO TOME & PRINCIPE	ANIBAL	Olavio	Ing. Technique de Pêche, Statisticien	Direction des Pêches B.P. 59 Sao Tomé	12. 22091	12.21095	
SAO TOME & PRINCIPE	TEIXEIRA	Manuel	Biologiste Chargé de Socio- Economie de Pêche	Direction des Pêches B.P. 59 Sao Tomé	12.22091	12.21095	
GABON	ONDOH	Robert	Directeur des Pêches Artisanales	DGPA B.P. 9498 Libreville	75.37.87 74.89.92	76.46.02	
R. D. CONGO	KISALIMA	Katsango	Chef de Division/ SENADEP	SENADEP c/o FAO B.P. 16096 Kinshasa I	33.436	43.353	
ANGOLA	SALAVISA	Joaquim	Directeur IPA	Rua José Pedro Tula 36 X 38 Luanda	39.30.39	39.30.39	
ANGOLA	LARTIGUE	Jean-Philippe	Conseiller Technique	MCAC Ambassade de France CP. 707 Luanda	39.30.39	39.30.39	
CAMEROUN	NJOCK	Jean-Calvin	Directeur des Pêches	MINEPIA/DIRPEC Yaoundé	31.60.49	22.14.05	

PAYS/ COUNTRY	NOM/ SURNAME	PRENOM/ NAME	TITRE/ TITLE	ADRESSE/ ADDRESS	TEL.	FAX.	E-MAIL
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CAMEROUN	MBENGANG	Pierre Vincent	Pêcheur	B.P. 28 Kribi			
CAMEROUN	BONDJA	Monique	Economiste Chef de Service Recherche Appliquée et Documentation	MINEPIA/DIRPEC Yaoundé	31.60.49	22.14.05	
FAO ROME	PRADO	Joël	Division Industries de la Pêche	FIIT FAO Via delle Terme di Caracalla 00100 Rome (ITALY)	570 54931	570 55188	Joël.Prado@fao.org
FAO ROME	JOHNSON	Jan	Division Industries de la Pêche	FIIT FAO Via delle Terme di Caracalla 00100 Rome (ITALY)	6570 54734		Jan.Johnson@ fao.org
DIPA	HOREMANS	Benoît	Chef d'Equipe/ Planificateur des Pêches	DIPA FAO B.P. 01 1369 Cotonou	33.09.25	33.05.19	dipafao@bow. intnet.bj

**WORKING GROUP ON CAPITAL NEEDS AND AVAILABILITY
IN ARTISANAL FISHERIES: METHODOLOGY AND LESSONS
LEARNED FROM CASE STUDIES (IDAF/WP/65)**

By

Benoit Horemans, Moutapha Kebe and W. Odi-Akersie

The existing financial system in artisanal fisheries in West Africa is an aspect that has received insufficient attention in the preparation of development policies. The lack of understanding of this system has resulted in field actions that have often been disappointing. Meanwhile, the informal sector continues to be the main source of finance for artisanal fisheries in the sub-region, and at the same time the repayment rate of artisanal fisheries operators for institutional credit remains generally very low.

To add to the information already available to development policy makers, the Programme for Integrated Development of Artisanal Fisheries in West Africa (IDAF) set up a Working Group on capital needs and availability in artisanal fisheries. The members of this Group are economists with experience and interest in the field of artisanal fisheries development, in particular in its financing. They work in research institutes (Cote d'Ivoire, Ghana, Senegal), in national savings and credit banks (Sao Tome and Principe, Senegal) as well as in international development banks (ADB, BDEAC). The Group's objectives are:

- (i) to elaborate a simple but efficient methodology to facilitate the identification of capital requirements in the artisanal fisheries sub-sector in West Africa;
- (ii) to design a methodology to identify the availability of capital from different sources of financing;
- (iii) to analyse the results of the two case studies that will be carried out in Senegal and Ghana;
- (iv) to prepare a document indicating to what extent the lack of capital could hinder the sector's development;
- (v) to formulate a methodology for a study on fiscal policies in favour of the sub-sector.

This report reviews the results of the activities undertaken with respect to the first three objectives above.

During the first meeting in Cotonou, from 8 to 10 March 1994, the participants worked out a typology of capital needs for the different operators in the sub-sector as well as an inventory of the various sources of formal and informal finance.

In preparing the case studies to be undertaken in Senegal and Ghana, the Working Group reviewed the information available in the two countries. This allowed the Group to select the sample fishing sites, stratify the observation units, define the sampling procedure and list the different information items to be included in the questionnaire.

During the data collection, carried out in August and September 1994, a total of 190 and 177 boat owners/managers were interviewed in Senegal and Ghana respectively. In Senegal, the

survey resulted in the assessment, for the first time, of capital availability, updating of capital requirements following the devaluation of the CFA franc in January 1994, and testing the reliability of the data that are regularly gathered at the landing sites. In Ghana, the study eased the updating of the 1986 survey on capital requirements, the analysis of the profitability of different fishing units and the assessment of capital availability in the sub-sector. The results of these case studies were analysed by the Working Group during its second meeting, again held in Cotonou from 18 to 20 October 1994.

An important lesson learned from this exercise is that this type of survey can only complement the regular monitoring of the sub-sector in terms of catch, fishing effort and income. As for the present survey, it helps in identifying the sources of finance, and establishing the profitability level of the investment and the distribution of income among the different factors of production.

It is also apparent that the information on capital requirements should be collected using a different procedure. An annual survey of the main importers and manufacturers of fishing material and equipment seems to be the most appropriate. This will enable one to estimate the present value of the investments on the basis of the year of purchase, a standard rate of depreciation for each component of the fishing unit and their replacement costs.

The capital itself is not a fixed element, it changes regularly and a one-spot survey cannot give a true picture of its dynamic nature. To better appraise the capital flows, the Working Group, therefore, recommended the monitoring of some fishing units (50 in the case of Senegal) for a period of one year.

Future surveys should also generate supplementary information such as the level of risk, membership of the boat owner/manager in a group which could guarantee a bank loan, and the saving capacity and its role in the replacement of equipment investments.

These case studies record the capital invested in the sub-sector at a certain moment in time. But the primary banks require time series data to assess the credit worthiness of potential loanees. However, the results of these studies provide a realistic picture of the economic and social status of the artisanal fisheries sub-sector, and therefore, expected to help banks to have a better understanding of the context in which the individual artisanal fisheries operators operate.

Other complementary follow-up actions, recommended by the Working Group, mainly concerns the study of institutional financing of the artisanal fisheries in Senegal and the inclusion of aspects of artisanal fisheries financing in the socio-economic survey requested by the Department of Fisheries of Sao Tome and Principe.

The Working Group also established the need to carry out case studies on fiscal policy, its fifth objective, in early 1995, and for the Ghana study to precede that of Senegal.

FISCAL POLICY AND THE ARTISANAL FISHERIES SECTOR IN GHANA AND SENEGAL (IDAF/WP/90)

By

Kofi N. Afful and Moustapha Kebe

This Report contains two papers, produced within the framework of the IDAF Working Group on Capital Needs and Availability in Artisanal Fisheries in West Africa. These papers, on the fiscal policy applied to the fisheries sector in Ghana and Senegal, have been conceived as examples of a methodology which can be used by Fisheries Administrations in other countries in the sub-region.

The first paper describes the effects of the fiscal policy package within the Economic Recovery and Structural Adjustment Programmes, implemented in Ghana since 1983, on the fisheries sector.

The continuous poor performance of the Ghanaian economy prior to 1983 led to the implementation of economic reform policies, of which those influencing the fisheries sector include the removal of controls on prices and foreign exchange rate, a ban on personnel recruitment in the civil service, and trade liberalisation. The fisheries sector, comprising artisanal, semi-industrial and industrial fishing units, is an important source of gross domestic product, employment, cheap animal protein, and foreign exchange for the national economy.

The principal effects associated with the fiscal policy reforms concern the huge increases in nominal fish prices relative to that of fishing inputs and weakening of the institutional capacity of the Fisheries Department for effective fisheries development and management.

As expected, the premixed fuel subsidy introduced in 1992 in artisanal fisheries increased fuel consumption from 1.68 litres per tonne of fish caught in 1991 to 3.00 in 1992 and 5.31 in 1993. This subsidy scheme cost the government at least C14.6 billion in 1992 and C21 billion in 1993, representing 3.4% and 3.2% respectively of total government expenditures. The removal of the fuel subsidy in 1994, however, adversely affected artisanal fishing profit to the extent of making some negative.

The second paper, on Senegal, also focuses on the impacts of the fiscal policy on marine artisanal fisheries in order to determine the impact of the possible withdrawal of indirect public financial support.

As in the case of Ghana, the declining performance of the Senegalese economy before the end of the 1970s forced the government into undertaking stabilization, and structural and monetary adjustment programmes, with policies including trade liberalisation, privatisation and devaluation. Relative to Ghana, the contribution of the fisheries sector, particularly the artisanal sub-sector, in terms of gross domestic product, employment, export earnings and food security to the Senegalese economy is higher. This has been made possible, in part, by public technical and financial support at both fish production and marketing levels.

The Senegalese government provides indirect financial assistance to artisanal fishing in the form of exemptions from value added tax, and import and customs duties on outboard engines, nets and fuel. The annual indirect subsidy to the artisanal marine fisheries amounts to 5.8 billion FCFA, 2.01 billion FCFA and 0.69 billion FCFA for fuel, outboard engines and nets respectively (a total of 8.5 billion FCFA).

The devaluation of the FCFA, leading to relatively high increases in investment and operating costs, negatively affected the profitability of artisanal fishing units. The withdrawal of subsidies on fuel, engines and nets will, therefore, only worsen the financial viability of fishing units. Consequently, the removal of artisanal fisheries subsidies should be progressive to minimize its adverse consequences.

The socio-economic importance of artisanal fisheries in Senegal, as revealed in its contributions to value added (over 70 billion FCFA), employment (over 10% of the active population) and food security (over 200,000 tons of fish landed yearly), in a way, justifies the need for continued public financial assistance to the sub-sector. However, given the present level of Senegalese EEZ resources, some measures have to be taken to ensure sustainable development in artisanal fisheries. In particular, the redevelopment of fishing effort in the southern zone through indirect financial incentives to artisanal fishing units. The use of inboard diesel engines should also be promoted to reduce fuel consumption.

THEORETICAL CONSIDERATIONS AND PRACTICAL IMPLICATIONS OF SUBSIDIES TO THE ARTISANAL FISHERIES SECTOR IN WEST AFRICA (IDAF/WP/91)

By

Benoit Horemans

This Report briefly introduces the economic analysis of fisheries exploitation to aid non-experts to understand both the theoretical and practical implications of the application of subsidies to the fisheries sector. It also provides concrete examples of some artisanal fisheries subsidy schemes that have been tried in four West African countries (Togo, Ghana, Senegal, Sao Tomé & Príncipe).

The report contains 6 sections including the introduction. Section 2 defines subsidy as a financial transfer from one economic agent to another, and also distinguishes financial analysis from economic analysis. The former and latter analyses focus on the private and public attractiveness of an investment respectively. Section 3 describes the various forms of production-oriented social assistance and economic assistance subsidies. Section 4 brings out the importance of the renewability and exhaustibility, and the free access nature of the resource, before illustrating subsidy as a fishery management and development tool. There are different fisheries management objectives, but economic theory proposes maximum economic yield which is usually attained at low level of fishing effort relative to either biological or social objectives. Both direct and indirect subsidies can be used to target producers or consumers. Section 5 shows how artisanal fisheries can adjust in practice in the presence or absence of subsidies in four countries in the sub-region. This is followed by the conclusion in section 6.

Access to most artisanal fisheries in West Africa is open and free, and where total fishing revenue is already equal to total cost, subsidies do not bring any long-term supplementary benefits. Subsidies instead lead to the wastage of valuable financial and fish resources, and increase the cost of fisheries management. Subsidies discourage innovative private operators and delay the adoption of economically efficient technologies, and their administration is usually associated with fraud. The equality of total fishing revenue and total cost is indicative of the presence of excess fishing effort over that required for the economically efficient exploitation of the resource. Subsidies encourage the further application of fishing effort, thereby causing more economic waste, and their removal requires a considerable reduction of fishing effort and employment which is not always politically acceptable.

Subsidies in the agricultural sector generally increase production, but in free-access fisheries they decrease it. It is, therefore, essential within the context of the fisheries sector, to understand not only the redistributive role of subsidies, but also their impacts on the development and management of a fishery. For existing undeveloped artisanal fisheries in West Africa, if any, the Authorities should, therefore, focus on providing the enabling environment through building infrastructure, market research and market promotion.

One of the basic assumptions of Structural Adjustment Programmes is the removal of subsidies in order to establish market prices reflecting the real value of goods and services. The

relatively high national public finance deficits in the sub-region leave no hope to expect a fundamental change of this policy in the near future. If subsidies continue to be typical within many sectors of the economy, this policy instrument should be handled with more care in the fisheries sector.

MEETINGS OF THE IDAF WORKING GROUP ON COSTS AND EARNINGS IN ARTISANAL FISHERIES IN WEST AFRICA: METHODOLOGY AND SURVEY PROBLEMS (IDAF/WP/72)

By

Alhaji Jallow

Governments in the West African sub-region increasingly support artisanal fisheries expansion in order to improve the socio-economic conditions of the fisherfolk as well as the contribution of the sub-sector to economic development, especially in the supply of cheap animal protein and employment. However, the generation of reliable socio-economic information which is required for the preparation of sound plans for artisanal fisheries development and management, is apparently neglected. Furthermore, artisanal fisheries operators are not used to keeping written records of their transactions. As a result the collection of socio-economic data in artisanal fisheries is not only time-consuming, but also expensive.

To improve on the ad hoc costs and earnings studies conducted in various countries in the sub-region, the IDAF Programme invited national fisheries administrations and research institutions to jointly develop a relatively cheap and reliable survey methodology, and assess the cost structure, the sharing system, and the profitability of artisanal fishing operations for a year in ten of its associated countries. A Working Group on Costs and Earnings on Artisanal Fisheries in West Africa was, therefore formed, comprising economists and technologists with experience from ten of the countries selected; Mauritania, Senegal, Gambia, Cape Verde, Guinea, Côte d'Ivoire, Benin, Nigeria, Cameroun and SaoTome & Principe. Ghana was later added to this list of countries. Members of this Group serve as Study Co-ordinators.

This summary reviews the study methodology, presented in IDAF Technical Report N° 72 (IDAF/WP/72) and the field problems. The first meeting of the Working Group, held in Dakar on 12 - 13 June 1995, produced the study methodology, while the second, in Banjul on 26-28 February 1996, discussed the mid-term progress and the field problems. The methodology defined the sampling procedure, various items of costs and earnings, data collection strategy, required data set and data analysis. The field problems included fishermen's withdrawal and migration, unavailability of regular fisheries data collectors and use of non-standard units of measurement for fish landings.

The limited financial resources (\$3,000 per Study Co-ordinator) for the study, coupled with the need for the active participation of fishers in the survey to ensure the generation of reliable and high quality data, led to the adoption of a flexible sampling approach. With the information presented in the country report of each of the Study Co-ordinators, a typology of fishing units based on fishing method, boat type, mode of propulsion, crew size, sharing system and target species was established for each country. On the basis of this, at least two but not exceeding four different fishing methods were selected for each country. As a result eight (8) different fishing methods were retained for the study. Both the fishing sites (20) and fishing units (a minimum of 15% of the total units at the selected sites), hence boat-owners/captains, were purposively selected.

Although the sample size was biased towards easily accessible fishing sites and fishers who were willing to participate, it covered the major types of fishing units in the zones of interest. With the exception of Mauritania, Cape Verde and Sao Tome & Principe a total of 287 fishing units (more than 10% of the total units at the study sites) were covered in the remaining case studies. The actual sample size fell short of that planned, mainly due to the non-cooperation and migratory behaviour of some of the selected fishing units, and abandoning of two of the selected sites (one in Cameroun and the other in Nigeria).

The structured IDAF questionnaire, slightly modified and made in the form of a notebook for fishers to complete by some Study Co-ordinators, served as the survey instrument which was administered by trained data collectors (fisheries enumerators and/or fishers). It was, however, replaced halfway through the study with the routine data recording forms in Mauritania. Boat-owners/captains were the source of most data such as fishing operational activities and expenses, sharing systems, sources of funds, catch (species, quantities, prices) and other sources of income. Information on the replacement cost of engines, fishing gear and vessels were obtained from suppliers of fishing equipment and material. Other important information such as opportunity costs of labour and capital, licensing fees, insurance fees, subsidies and taxes were obtained from other sources.

The use of fishers to collect data through the notebook system, although failed in one out of the five case studies where it was experimented, demonstrated for the first time the feasibility of such an approach in artisanal marine fisheries in West Africa. The failure of the notebook system, mainly attributed to the high illiteracy rate of fishers, suggests the need for better training of and for building good rapport with fishers to improve the success rate of the approach in future surveys. Above all, the objectives and benefits of the survey must be made quite clear to all data collectors. Future surveys should also explore the possibility of presenting results to fishers for their comments in order to further strengthen the relationship between fishers and official data collectors/researchers.

This is also the first time that an extensive and coherent survey of this nature has successfully been done in the sub-region. This methodology should, therefore, be promoted by Fisheries Administrations. This will require such Administrations to integrate information on costs and earnings in their regular monitoring of catch and effort. Given the amount of data collected, the level of analysis required and time constraint, the use of computer for tabulation and estimation of measures of profitability and financial rates of return was found extremely useful. For Fisheries Administrations yet to computerize, this is a valuable long-term investment worth undertaking. To avoid the problem of double counting in estimating profitability of fishing units with gears lasting one year or less, studies should only include the costs of repairs and maintenance rather than combining them with depreciation.

The common use of non-standard units of measurement of fish suggests the need to complement future costs and earnings surveys with the estimation of conversion factors between local measurement units and metric weights.

COSTS AND EARNINGS IN ARTISANAL FISHERIES: METHODOLOGY AND LESSONS LEARNT FROM CASE STUDIES (IDAF/WP/100)

By

Foday Turay and Karin Verstralen

During the third meeting of the Working Group on Costs and Earnings on Artisanal Fisheries in West Africa in Cotonou, from 22 to 24 April 1997, the results of the case studies on Costs and Earnings were discussed with the main aim of bringing out lessons for future studies and follow-up activities.

These studies, conducted in nine countries (Benin, Cameroun, Cote d'Ivoire, The Gambia, Ghana, Guinea, Mauritania, Nigeria and Senegal), aimed at: (i) developing relatively cheap and practical methods for data collection and processing, (ii) generating quantitative information on the expenditures and revenues, and structure of sharing systems in artisanal fisheries, and (iii) assessing the profitability of the main types of fishing units. For this, fishing units were monitored for a year and structured questionnaires were used to collect information on operational activities, expenses, catches and incomes. Suppliers of fishing equipment were the main sources of information on the replacement costs for engines, fishing gear and vessels.

This report reviews the results of the studies conducted in Benin, Cameroun, Cote d'Ivoire, The Gambia, Guinea, Mauritania and Senegal. The review is limited to purse seine, set gillnet and handline fishing units.

The investment costs vary according to the fishing technique both within and across countries. They are highest in purse seine fishing (varying from \$8,337 in The Gambia to \$23,539 in Cameroun), and lowest in gillnet fishing (ranging from \$2,835 in Senegal to \$7,318 in Guinea), with the exception of Guinea where handline fishing requires the least investment costs (\$2,705).

Taking purse seine, gillnet and handline¹ fishing into consideration, the highest and lowest variable costs are associated with handline fishing (varying from \$6,452 in Benin to \$18,731 in Guinea) and gillnet fishing (ranging from \$1,304 in Senegal to \$9,146 in Guinea) respectively. The variable costs of purse seine fishing vary from \$1,915 in The Gambia to \$14,005 in Cameroun. While Guinea (apart from Cameroun in the case of purse seine fishing) is the most expensive country for fishing units to operate from, Cote d'Ivoire (with seine fishing recording less than \$500 variable expenses) is the cheapest. However, on the basis of the variable cost per fishing trip, the most expensive fishing unit to run is the handline fishing in Senegal (\$508), while the seine fishing in Cote d'Ivoire (less than \$4) is again the least expensive, followed by the gillnet fishing in Cameroun (\$8). Handline fishing units in Senegal make the longest fishing trip (about 10 days per trip), thus the lowest number of annual trips (24).

¹ Handline is generalized here to mean handline and longline. The long trip units use longline and those seem to incur more cost and generate more revenue.

The annual sales/revenues are lowest from gillnet fishing in The Gambia (\$3,602) but highest from handline fishing in Senegal (\$80,130). Sales from purse seine fishing range from \$9,287 in Cote d'Ivoire to \$73,979 in Cameroun, while those from gillnet fishing vary from \$3,602 in The Gambia to \$23,297 in Guinea. In handline fishing, they range from \$12,535 in The Gambia to \$80,130 in Senegal. The variations in annual sales are explained by those in the volume of landings and fish prices.

The net revenues; the total sales of fishing units less their common costs, are in most cases shared between boat-owners and fishing crew. The 50:50 sharing arrangements are practised by all fishing units in Benin and Cameroun and the collective seine in Cote d'Ivoire. Furthermore, the crew shares are less than 50% for purse seine and gillnet fishing in Guinea and The Gambia, while they exceed 50% for the rest of the fishing units. The allocation of revenue shares to capital items in Senegal is suggestive of the influence of increasing capital intensification on the structure of sharing systems.

The variations in net revenues and revenue sharing regimes are also reflected in the average monthly revenues of boat-owners and fishermen. Boat-owners, in general, are better rewarded than fishermen. On a fishing method basis, only gillnet fishing in Cameroun gives a higher monthly remuneration to fishermen (\$50) than boat-owners (\$24). Monthly revenues for boat-owners are lowest in gillnet fishing in Benin (\$23) and Cameroun(\$24), but highest in purse seine fishing in Cameroun (\$1370) and for purse seine in Senegal (\$993) and handline (\$894). The most rewarding fishing unit for fishermen is handline which gives them the highest monthly income in Senegal (\$515) as well as in Mauritania (\$163) and in Guinea (\$160). Fishermen are least paid, on a monthly basis, in purse seine fishing in Guinea (\$17), in gillnet fishing in The Gambia (\$17) and in gillnet fishing (\$21) and handline fishing (\$21) in Benin. Given the wide variations of fishing income from different fishing methods within countries, especially in Senegal, future studies should examine the factors constraining fishermen's mobility from poorly paid fishing to better rewarding fishing. Unlike fishermen's revenues, those for boat-owners generally exceed the minimum salaries in the public sectors as well as farmers's incomes.

The profitability rate of a fishing unit, estimated as the ratio of the yearly net revenues of boat-owners to the investment costs, is not only positive, but significantly high for all units. Relatively low profitability rates are associated with gillnet fishing in Benin (6%) and in Cameroun (10%), and handline fishing in Benin (14%). The highest rates (all exceeding 100%) result from gillnet (214%) and handline (198%) fishing in Mauritania. Longline fishing in Senegal (137%) and in Guinea (128%). Compensation for managing the fishing unit and for capital investment, as an additional measure of profitability, should be estimated separately in future studies.

On the basis of the various profitability measures, artisanal fishing is financially attractive. Boat-owners do get considerable profits, varying with the type of fishing. Therefore, to explain the relative poverty of fisherfolk, their financial inability to replace their fishing equipment and material when needed, and their poor loan repayment record, it is important to combine the results of costs and earnings studies with those from other studies dealing with artisanal fisheries socio-economic issues such as the use of income, fiscal policies, credit and savings, and costs and earnings of fish processors and traders.

USE OF CAPITAL INCOME IN ARTISANAL FISHERIES

- (i) **The Case of Boat-Owners in Hann, Senegal (IDAF/WP/92)** (by Yoro Diaw Ndiaye)
- (ii) **A Case Study of Boat-Owners in Elmina, Ghana (IDAF/WP/106)** (by Doris Abena Yeboah)

During the deliberations of the IDAF Working Group on Capital Needs and availability in the artisanal fisheries sector (IDAF/WP/65), participants observed that in most cases capital income covers maintenance and repair costs as well as investment depreciation. The superiority of boat-owners' income over fishers' income or minimum salaries in public services was also established. However, it was also observed that boat-owners hardly had enough money to meet their needs when the investment has to be renewed. There is, therefore, a money management problem associated with capital income. This led to the two case studies on the use of capital income from artisanal fishing in Hann (Senegal) and in Elmina (Ghana), a review of which is presented below. Both studies analysed the profitability of fishing and the expenditure patterns of boat-owners, and were carried out during the lean fishing season for a period less than a month.

The Senegalese study reveals that artisanal fishing, for all types of methods, is not only profitable, but also generates a return on investment far in excess of the prevailing opportunity cost of capital. In the case of Ghana, only purse seine, lagas and beach seine fishing units show positive profitability, while the bottom gillnet and ordinary handline units do not. Owners of these loss-making fishing units engage in complementary income-generating activities such as masonry, canoe carving, and carpentry.

Regarding expenditure, boat-owners, except those operating purse seines in Hann, do not separate their personal incomes from the capital income. The capital income, therefore, contributes to household expenses, including food, ceremonies and entertainment, education and health, and even to property investments. Furthermore, the expenditure level of the average boat-owner is closer to the overall cash flow of the fishing unit than to the net fishing income. As a result only the purse seine owners reported saving the equivalent of the depreciation in the case of Senegal. In Elmina, owners of lagas, purse seine and beach seine also reported annual savings in the range of C100,000 - 500,000, unlike owners of ordinary hook and line, and bottom set gillnets who could not save due to their low fishing income.

In general, most boat-owners save the capital income during the high catch season, but forced to spend during the low (poor) catch period. This latter period usually tends to coincide with high demand for non-fishing expenditures.

If boat-owners are to reduce their dependence on external financing for the renewal of their capital assets, they should be educated on the importance of separating their capital income from other incomes and of saving it.

As this study was carried out in a relatively short time, less than a month, and within the lean fishing period, a longer period to capture seasonality is advisable for future surveys. The sensitivity of income information also demands that the structured questionnaire approach should be combined with informal data collection methods in order to improve the quality of the

information set to be collected. The non-separability of capital from other income sources suggests the need for future study on the use of capital income not only to generate additional data on the different forms of savings, but also to be associated with household income and expenditure surveys.

STUDIES ON COSTS AND EARNINGS IN FISH PROCESSING AND MARKETING

By

Yao Kouakou, N'nah Cisse Toure, Catherine Isebor
and Karin Verstralen (IDAF/WP/108)

At the tenth Liaison Officers Meeting of the Programme for the Integrated Development of Artisanal Fisheries in West Africa (IDAF) in Lome, gender issues in artisanal fisheries in West Africa were discussed and useful recommendations on follow-up activities were also made. These activities include the collection of information on women's activities in artisanal fisheries in order to assess, particularly, their economic role. Although women's participation in the fishing and fishing-related activities is widely recognized, their work is often unrecorded and only associated with family support. Apart from this contribution to family support, little is known quantitatively about their role in the wider economy and in wealth accumulation. In its continued pursuit of gender issues in artisanal fisheries, IDAF commissioned case studies on costs and earnings in fish processing and marketing, as recommended by the participants at the third meeting of the Working Group on Costs and Earnings in Artisanal Fisheries in West Africa. Aspects on women's incomes in artisanal fisheries were also the focus of surveys conducted in 1994 in Cameroun (IDAF/WP/62) and in 1996 in Nigeria (IDAF/WP/94).

The case studies on costs and revenues in fish processing and marketing were carried out in Ogheye (Delta State, Nigeria), Adiake (Cote d'Ivoire) and Boulbinet (Guinea) with the following specific objectives: (i) to develop practical, cheap and viable data collection methods for the survey, (ii) using (i) to generate information on investment costs, operational costs and sources of funds, incomes, marketing channels, social obligations and the structure of expenses, and the role and structure of socio-professional organisations, and (iii) to determine the profitability of fish processing and marketing. For this, data was mainly generated through the use of questionnaires, and then analysed using tabulation and calculation of net revenues and profitability rates. The field surveys lasted for about a month.

(i) Costs, Earnings and Expenditure structures of fisherwomen, Fish Processors, and Fish Traders in Ogheye, Delta State, Nigeria (IDAF/WP/108) (By Karin Verstralen and Catherine Isebor)

This report reviews the results of the case-study in Ogheye, Delta State, Nigeria. This fishing community is selected because its people have been found, in the past, receptive and accommodating towards researchers, partly due to the frequent use of this village as a site for pilot projects. However, since April 1997, this site has been affected by ethnic conflict with its negative impact on fisheries activities. This, coupled with the fact that the field survey was undertaken from 3 June to 4 July, part of the low season suggest the need to replicate the study in another site for a longer time, representing both low and high seasons.

With the results of the short pilot survey in the village, three combinations of fishing and fishing-related activities of women were distinguished, namely: (a) fishing-processing-marketing, (b) processing-marketing, and (c) fishing-marketing. These form the basis for the purposive selection of the sample of 31 women. This small sample size (4% of the active fisheries women)

also supports the need for the replication of this study with a larger sample size (of at least 10 % of the target population). Data was collected through the use of both structured and semi-structured questionnaires as well as from group discussion and the on-the-spot field observation.

Adult women constitute about 17% (785) of the study site's population of 4,500, and they all derive their main source of income from fisheries activities. These women are very important in buying and selling their husband's catch as well as that of other fishermen. They are also responsible for household activities such as the preparation of food, cleaning the house and child care. Their role is also vital in maintaining social networks at family, neighbour, and community.

With the lowest monthly costs in both investment and operating expenses, women in fishing-marketing activities have the least financial requirements. Women in fishing-processing-marketing require the highest capital investment, while those in fish processing-marketing show the highest operating expenses. However, on a combined total expenses basis, fishing-processing-marketing activities are the most expensive.

The highest monthly sales revenues are from fishing-processing-marketing of fish (N 276,657) and from crayfish processing-marketing (N260,000), but lowest from periwinkle processing-marketing (N10,667) and periwinkle fishing-marketing (N12,200).

The net revenues are variable and highly positive, thus indicating that women do make considerable profits from processing and marketing activities in fisheries, especially from the combination of these two post-harvest activities and fishing. This explains to a large extent their ability to lend, and they should, therefore, be a target for savings and credit institutions.

Women sourced their incomes from their direct participation in fishing, processing and marketing activities, additional sources of income, investments (in kind) in other people's fishing activities, husband's contributions (in kind and cash), credit and from the amount meant for depreciation of fishery equipment.

Women's expenditures cover household expenses, investments in own fishing and fishing-related activities, investments in other people's fishing activities, savings and social contributions. Household expenses include food, education, pocket money, clothing, rent, drinks, gifts to relations and loan repayments. Investments in other people's fishing activities take the following forms: supply of fishing equipment and material, loans to husbands, moneylending and provision of fuel. Repayments from these investments are primarily in kind. Women spend a considerable amount of money on savings with rotating savings and credit associations, as well as on social contributions to socio-economic associations (societies), family ceremonies and church.

No doubt, women are important economic contributors to the prosperity of their families and of the economy of the study site, especially in generating incomes, wealth, employment and satisfying consumer demand for fish as well as in maintaining community social cohesion. Future studies should also extend their scope to all economic operators in order to provide a holistic analysis of gender issues in artisanal fisheries economies.

(ii) *Costs and Earnings in Fish Processing and Marketing in Adiaké, Cote d'Ivoire (By Yao Kouakou)*

This report presents the main findings and recommendations of the case study in Adiaké. A sample of 15 (5%) women was selected for the costs and earnings survey, and of 26 women were interviewed for information on the use of income. Data from routine surveys also complemented the field survey, and this allowed the analysis to be done for three months.

As in the Ogheye case, fish processing and marketing do not only revolve around the fishing household, but are also exclusively female activities. The first point of exchange of the fish is generally characterised by household members.

The analysis of fish marketing indicates that the fishery economy of Adiaké is essentially dependent on the ethmalosa, tilapia, catfish and crab products. The fresh fish and fish products traded beyond the first point of sale represents a tiny proportion. The economic agents implicated in the flow of fresh fish include fishers, fishmongers/wholesalers and retailers.

Smoked fish, constituting the bulk of the fish catch, flows from fisher to retailer through processors, intermediaries and wholesalers. These market processes create incomes for the women. The marketing margins are highest for retailers and lowest for processors.

Investment is relatively low in fish processing and lower in fresh fish marketing. Loans constitute the main source of funds. Fish processing units employ very few people. Although both marketing systems are highly profitable, fresh fish marketing shows higher returns.

Women's incomes mainly come from their own economic activities especially from fish processing and trading, borrowing, husbands's contributions, and from other sources such as repayments from lending fishing equipment, house rent and other rural income generating activities.

On the other hand, their expenditures cover their business operation and investment expenses, household expenses (on food, clothing, toiletries, medical and children's education), social and cultural activities (burial ceremonies, gifts to relatives), and savings.

Women processors and traders face a number of constraints, which include the irregular supply of fish (especially when the fishery is closed), the laborious and hazardous task of fish smoking and the increasing cost of fuelwood for smoking.

To address these problems within the overall context of improving income-generating capacity of women, the report recommends the diversification of income-generating activities for women, especially in the production of cassava flour and palm oil (activities commonly practised in the zone), animal husbandry (chicken, ducks, pigs) and market gardening. These activities will provide additional incomes, particularly during the low fishing season. The improvement of the flow of credit to women will be needed, especially in mobilising individual savings into a better local savings and credit system.

Educating women should also be addressed to enable them understand and implement the rudimentaries of book-keeping.

Regarding the supply of fuel, alternative sources of energy, such coconut oil, should be explored. Fuel-saving fish processing technology should also be introduced.

(iii) *Costs and Earnings in fish Processing and Marketing in Boulbinet, Guinea (By N'nah Cissé Toure)*

This report presents the preliminary results of the case study conducted in Boulbinet (Guinea), for which a sample of 54 (16%) women processors and traders of ethmalosa (bonga), sardinella and high quality fish products were interviewed.

As in the previous two case studies, entry into fish processing and trading requires a relatively high investments necessitating the resort to both own financial resources and loans from public development projects.

In Boulbinet, as in Ogheye and Adiaké, fish processing and marketing are apparently profitable investments, and lead to the supply of fish to different markets in other parts of Guinea and even abroad and creating income and employment.

Women derive their main income from fish processing and marketing. A number of other income-generating activities complement this principal income source. Their expenditure pattern is diversified, covering such items as business expenses, household expenses, loan repayments, contributions to socio-cultural and economic associations and savings. These associations include cooperatives, economic interest groups, rotating savings and credit associations, development project, and religious groups.

Constraints to women's fish processing and marketing activities are the poor quality of processing equipment and material, their working environment, insufficient working capital, low and unstable revenues and non-sustainability of project assistance.

To improve the economic condition of women in the study area, the report recommends the improvement of the fish processing environment and technology, the flow of credit, and provision of functional literacy programmes for women.

CREDIT AND SAVINGS SYSTEMS IN ARTISANAL FISHERIES IN GHANA (IDAF/WP/107)

by

Alabi Bortey

The issue of credit to artisanal fisheries is of primary concern to the IDAF Programme and other agencies interested in the development of the sub-sector. The inadequate supply of credit and savings is one of the main factors constraining the development of artisanal fisheries in West Africa. In addition, the macro-policy environment tends to discourage the emergence of innovative institutional lending schemes. The limits on lending interest rates and the relatively high risk associated with fishing make it financially less attractive to formal financial institutions, as compared to less risky competing investments. Furthermore, commercial bank lending to artisanal fisheries is disappointing both in terms of the volume of loans and their recovery rates. As a result the artisanal fisheries in West Africa are highly dependent on informal credit arrangements, and such sources can hardly satisfy the credit demand of the sub-sector. However, not much attention has been paid to understanding artisanal fisheries credit in national planning in the sub-region.

To contribute to the supply of vital information for better understanding artisanal fisheries credit in West Africa, the IDAF Programme financed this study on credit and savings in artisanal fisheries in Ghana. The study reviewed the past and present credit and savings schemes and made recommendations for improving the flow of finance into artisanal fisheries in Ghana. For this data was collected from relevant institutions and organizations dealing with artisanal fisheries finance, as well as from fishers, fish processors and traders.

Since the 1950s, artisanal fisheries operators have been accessing formal credit from a number of institutions, of which the Agricultural Development Bank (ADB) has been and still is the most important. Its credit takes the form of fishing inputs such as outboard motors and premixed fuel. However, the ADB, like the other formal credit institutions, suffers from low loan recovery rate, resulting in the gradual decline of their loan funds.

Mutual organisations such as cooperatives and credit unions also finance artisanal fisheries, but with little success, due to their inability to mobilize sufficient savings. Savings are usually high during the fishing season but exhausted during the lean season. As a result the apex fishing organisations are mainly oriented towards input distribution, rather than savings mobilisation. NGOs have, however, achieved some success in extending credit to fish processors and traders. Fisherfolk should, therefore, be educated on the need for savings mobilisation and for loan repayment.

In general, groups initiated and nurtured in the mobilisation of personal savings for self benefits, and subsequently linked to external funding sources with training tend to be more stable and successful than those solely formed to gain access to external funding.

The informal institutions, the most common lending sources to artisanal fisheries, are unable to meet the credit requirements of the sub-sector. The reciprocal credit arrangements between fishers and fish processors/traders, used mainly to finance operational expenses, constitute the most important supplier of artisanal fisheries credit. However, the continuity of these credit

arrangements could seriously be undermined by poor catches, leading to the long-term indebtedness of fishers. Effective fisheries management is, therefore, required to ensure the sustainability of fishing. Where fisheries resources are being overfished, it is advisable to facilitate the exit of some fishers to non-fishing activities to reduce the pressure on the resource. In this regard, NGOs and other fisheries development agencies should be encouraged to partake in the promotion and development of other sources of income.

To improve the flow of financial resources into artisanal fisheries, both formal and informal institutions should be linked. Rural banks should take the lead in this direction by mobilising savings through daily 'susu' collection points along the fish landing sites.

CREDIT AND SAVINGS SYSTEMS IN ARTISANAL FISHERIES IN SENEGAL (IDAF/WP/115)

By

Yoro Ndiaw Ndiaye

This report, being the second IDAF study on credit and savings, also reviewed past and present credit and savings schemes (the formal types in particular) in the artisanal fisheries in Senegal in order to make recommendations for improving the flow of funds into the sub-sector.

As in the case of Ghana, the financing of artisanal fisheries in Senegal is problematic, thus requires a lot more attention than it is being given. The spectacular expansion of artisanal fisheries and its dominant role in the Senegalese economy has considerably increased the sub-sector's financial resource needs, which apparently far exceed the self-financing capacity of fisheries operators. The devaluation of the FCFA in 1994 further increased the costs of fisheries inputs to the extent that the resort to external credit is inevitable for the continued existence of most artisanal fisheries operators. But, the unwillingness of commercial banks to lend to artisanal fisheries, considered risky, contributed to the development and viability of the informal savings and credit market, which is incapable of meeting the capital needs of the sub-sector.

During the colonial and post independence periods, the state supported the cooperative movements as a vehicle for channelling credit to artisanal fisheries. However, the cooperative approach failed to adequately and sustainably finance the artisanal fisheries sub-sector due to institutional and organisational problems. The state also initiated the "Société Nationale de Garantie" and the "Groupe Permanent d'Etude et de Concertation", which in 1978 and 1982 invested in artisanal fisheries FCFA 219 million and FCFA 450 million respectively.

The involvement of the "Caisse Nationale de Crédit Agricole du Sénégal (CNCAS)", the financial instrument of the new agricultural policy with experience in rural finance, in the management of the credit lines of projects for the development of artisanal fisheries, provides the driving force for the revival of the sub-sector's activities through appropriate bank credit.

To enhance the supply of institutional credit to artisanal fisheries, here are four recommendations:

- (i) The consolidation of the positive aspects of past policies and credit systems. In this regard, the "Crédit Agricole", the administrator of credit lines and principal source of credit to artisanal fisheries, is expected to lead the reflection on lessons learned and appropriate actions to be taken.
- (ii) The establishment of a maritime credit scheme which will take into consideration the peculiar ecological, technical and socio-economic conditions and exigences of the ecosystem in the artisanal fisheries milieu. The report proposes three possible scenarios for the administration of such a credit scheme: (a) Under state supervision, using the decentralised technical services of the Fisheries Ministry for the selection, monitoring and perhaps loan recovery. However, the establishment and management costs of such a

system could be prohibitive. The insufficient expertise will constitute a big handicap, especially in the earlier years of operation. Training of personnel in portfolio management will need to be emphasized, (b) Under CNCAS administration which will have to transform its present artisanal fisheries unit in collaboration with the classical financial supporters for artisanal fisheries, fisheries organisations and the technical services of the Ministry concerning the building of social capital, resource mobilisation, and employment creation, and (c) Support for the emergence of a network of savings and credit cooperatives, propped by a central fund in a bank. This strategy can only be considered in the long run. Another limiting factor is the likely behaviour of operators towards cooperatives, given the bad record of agricultural primary cooperatives.

- (iii) Support for the development of mutual savings and credit organisations which could efficiently complement the credit from the banking system. The emergence and development of a decentralised national financial system comes at a time of scarcity of financial resources and the awareness of the need to strengthen local institutions. By reinforcing local initiatives in financial intermediation, the monetary authorities demonstrate their support for the use of internal savings for the benefit of a large proportion of the population who are under-serviced by banks. Given the encouraging results of the “Crédit mutuelle de Hann”, other promoters, including fishers’ organisations and financial institutions such as CNCAS, should do their utmost to experiment with the mutual credit formula in the artisanal fisheries environment. It is, therefore, deemed necessary to have the harmonisation and the search for consensus at the levels of the objectives, strategies and the modes of operation in order to avoid creating undesirable situations for the population.
- (iv) The training and support for the emergence of strong and autonomous producers organisations, should constitute the basic precondition for the establishment of an appropriate and sustainable financial systems in the artisanal fisheries. The improvement of the value of the catch and the management of fisheries incomes has to be done to minimize failures. Furthermore, there is need to ensure the participation of operators in the definition, implementation and evaluation of all initiatives aimed at resolving their financial needs. The emergence of democratic organisations and producer representatives is expected to serve as a “moral guarantor” and security valve for the credit system to be developed in the artisanal fisheries milieu.

Official exchange rates: National currencies and US dollar (US\$), April 1997

Benin, Senegal, Cameroun, Cote d'Ivoire:

568 FCFA = 1 US\$ (April)

607 FCFA = 1US\$ (September)

Guinea

1,100 GF (Guinean Franc) = 1US\$

2 GF = 1 FCFA

The Gambia

10 D (Dalasi) = 1US\$

19 D = 1,000 FCFA

Mauritania

150 UM (Unité Monétaire) = 1US\$

264 UM = 1,000 FCFA

Nigeria

82 N (Naira) = 1 US\$ (April)

85 N = 1US\$ (June)

145 N = 1,000 FCFA

Ghana

1,800 C (Cedis) = 1US\$ (April)

1,956 C = 1US\$ (June)

3,400 C = 1,000 FCFA

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