

## 1. Scope and Context of the Report

### 1.1 Objective

When the Programme for Integrated Development of Artisanal Fisheries (IDAF) in West Africa started some 10 years ago, it was foreseen that intensive field activities regarding approaches experimentation should take place in the host country, Benin, under the name of "Model Project", directly as part of the Regional Programme. In May 1984, the activities of the Benin Model Project became a specific national project thus becoming the first national field project formulated and assisted by IDAF. Since then IDAF has identified and helped in the formulation of other projects. These include the Integrated Development in Rural Fishing Villages in the Shenge Peninsula, Sierra Leone; Development of Small-Scale Fisheries in Kaback Island, Guinea; Integrated Development of Fisheries in the North of Volta Lake (Yeji), Ghana; Establishment of Artisanal Fishing Centres in the Kamsar Region, Guinea.

In these and in many other small-scale fishery projects, emphasis is placed on an integrated and participative approach taking into account both technical and socio-economic needs of fishing communities and ensuring empowerment of fisherfolk through their active participation in both planning and implementation of development activities.

**The purpose of this report** is two-fold. The first is to provide a synoptic analysis of the extent to which the integrated - participatory strategy adopted by the World Conference on Fisheries Management and Development held under the auspices of FAO in 1984 has been applied in field projects in the IDAF region and also identify the socio-economic implications of the strategy on fisherfolk communities. The second more far reaching purpose of the report is to draw attention to the more salient lessons learned from applying the strategy in West Africa with a view to improving our interventions in favour of artisanal fisherfolk.

### 1.2 Methodology

While the information as reported represents a synthesis of observations from well over 15 projects with which the IDAF Programme has maintained close contacts, the bulk of the information is based on case studies undertaken in small-scale integrated fisheries development projects in Yeji, Kaback and the Gambia a detailed review of the model project that IDAF assisted in executing in Benin between 1983-1989, and from impact studies and analysis on the integrated approach commissioned by the Programme between 1989 and 1993 in a number of IDAF associated projects.

The work involved two complementary and interrelated phases: a desk study of available information/documentation and field investigations. The literature consulted included a wide array of project documents such as progress, annual and evaluation reports: reports on specific issues or subjects. The field investigations entailed obtaining information through direct observations and through meetings and discussions; interviews with key and privileged informants as well as with specific target groups.

### 1.3 Characteristics of sites chosen for case studies

The Yeji, Kaback and the Gambia projects were implemented in fisheries resource-rich environments, whereas the resource base of the Benin Model Project was relatively poor. Other specific characteristics of each site are provided below.

**The Benin Model Project** was based in Cotonou from where it proceeded to work in the coastal fishing villages. A training facility for fishermen was established at Cotonou in the form of a Community Fisheries Centre (CFC) which concentrated on improvements to fishing gear and methods and fishing vessels mechanization. Non-fishing activities were conducted in the villages according to local needs and requests. However, the Benin villages were small and had only slender resources in terms of land, soil, water, trees, facilities or amenities and the fishery resource base was also limited. Since most of the fish catches were marketed in Cotonou, there was little scope for local fish processing and related activities at the village level. As village fishermen were assisted to become more productive, they mostly elected to move to Cotonou port which formed a much better base of operations. Vessels were able to enter and leave the harbour regardless of beach surf conditions which hampered operations from the villages. Fishermen working from Cotonou were also largely free of the compulsory rest days enforced according to traditional religious criteria in the various villages.

The Benin village fishermen were mostly temporary immigrants and did not integrate with the indigenous population. Their encampments reflected their lack of local roots and they were reluctant to contribute in cash and labour to the development of social amenities. The lack of resources and social cohesion made integrated village development work more difficult.

The Benin Model Project was financed by Norway and executed by FAO. The project was implemented between 1983 and 1989.

**The Gambia project** was started in 1979 and evolved first under the classical concept of Community Fisheries Centres and from 1988 assimilated the integrated strategy. Funded by the European Economic Community (EEC) through the European Development Fund (EDF) and executed by the Italian Consulting Firm "IDRO Consult", the activities of the project are targeted at six coastal sites (Gunjur, Tanji, Kartong, Brufut, Sanyang and Batokunku). The number of village inhabitants who are earning incomes from fishing and fisheries related activities is approximately 3500. Of these, 1600 are fishermen and 1900 operators (smokers, driers, traders, dunilas, fish traders, etc.). 35% of the operators are women. Production from the sector in 1992 was approximately 11.500 MT.

An evaluation of the project was conducted in January-February 1992 by Integrated Marine Management a British consulting firm and concluded that: "The Programme has almost reached the stage where it is self-sustaining and if successfully carried to the next stage it could become one of the most successful interventions in artisanal fisheries in West Africa". (Integrated Marine Management 1992). Management of some of the Centres is now vested in the hands of Fisheries Centre Management Committees (FCMC) with staff of the Department of Fisheries serving as facilitators.

**The Yeji Project** is located in the centre of Ghana on the West bank of the Volta Lake. Before the construction of the Akossombo dam in 1964, the breadth of the river in Yeji was only about 160 m. Today, it extends over 8 km. The population is about 76,000 inhabitants spread over some 342 fishing villages. There are about 18,000 professional artisanal fishermen and 7,000 women operators involved in fish processing and marketing, as well as a considerable number of other people in ancillary activities. The Maximum Sustainable Yield (MSY) of Lake Volta is estimated at about 40,000 tonnes and each year the equivalent of about 8,000 tonnes of processed (smoked and dried) fishery products are transacted through Yeji. The Yeji project is unique in the sense that all the development processes and strategies applied in its implementation are based on the CFC concept as a vehicle to integrated small-scale fisheries development, but the CFC has not been built. Yeji's inland location is also a contrast to the majority of coastal integrated artisanal fishery projects in the region. The project was started in 1989, is financed by UNDP and executed by FAO.

**Kaback Island** lies at around 35 km south-east of Conakry. It is 15 km long and 8 km wide. The population is about 8,000 inhabitants. Of these about 800 are fishermen. The economy of the region is based essentially on rice growing and fishing; 90% of the inhabitants being farmer-fishermen.

The project started in 1988 and is financed by UNDP, and executed by FAO. The activities of the project are concentrated in the three villages of Matakang (the seat of the project), Konimodia and Khunyi. Production in 1992 was more than 6000 T. A number of significant innovations and hypotheses such as the institution of a project linked Credit Scheme, a 10% surcharge levied on the purchase of outboard motors and spare-parts and the use of Participatory Rapid Appraisal (PRA) techniques in the identification of micro-projects have been tested in Kaback. The project's success has also been catalytic in attracting donors interest particularly the EEC, through EDF's project for Rural Development in the Maritime region of Guinea and the Canadian Embassy both for the supply of outboard motors. The Association of French Volunteers for Progress (AFVP) has also helped in the building of wells for water supply.

The development objective of these projects is to diversify the economy in fishing communities, to create more job opportunities, to raise the incomes of artisanal fisherfolk and to improve nutritional standard by increasing the supply of fish for local consumption.

## **2. The origin of the concept for small-scale fisheries development**

In the contextual approach to fishery development, it is recognized that a fishery is not only a system or a collection of systems but is also a subsystem within a larger system the society. The artisanal fisheries sector is itself made up of interrelated sub-sectors which encompass the main operations of capture, processing and marketing, as well as a number of ancillary industries such as boat building, engine supply and repair services, gear manufacturing and supply, ice production, fuel and fuelwood supply, money lending etc. The sector is characterized by a number of factors : it is highly labour intensive but lowly capital intensive, it is also geographically very dispersed, with communities that are often isolated from mainstream development activities. In addition to providing employment to many thousands of fishermen and associated workers, the artisanal fisheries sector provides a significant amount of animal protein to an increasing population. This is particularly the case in West Africa where it

represents on average over 40 percent of animal protein supplies. In some countries e.g. Sierra Leone, the artisanal fisheries sector contributes over 80 percent to national food fish supplies. Despite these major contributions to the national wealth, fisherfolk lead a precarious existence at or below the subsistence level.

## 2.1 **Neglected and misplaced policies and their consequences**

Prior to the mid 1960's the artisanal fishery sector like peasant agriculture was characterized by neglect and misplaced policies by governments and international donor agencies.

This state of affairs was due to several factors :

1. post independence development policies in many cases focused on a top-down approach using industrialization as the motive force for economic growth aimed at transforming traditional economies into competitors on the world market;
2. interventions to assist fisheries also focused on large scale vertically integrated projects aimed at increasing food supply and employment mainly in the industrial sector. Governments also created a protected environment for large fishing companies and/or parastatals which was fortified by the government's desire to achieve economic independence;
3. the emphasis on industrial fisheries was fuelled by the extension of 200 nautical mile national exclusive fishing zones in the 1970s and the desire of developing countries to develop their own capacities to exploit the resources in adjacent waters.

By adopting an industrial fisheries development policy, governments were unaware or failed to appreciate that the industrial infrastructure was capital intensive and was unable to absorb the supply of labour. Thus the industry became dependent on imported components so that production was not sufficiently based on locally available resources; optimum productivity of imported technology depended on the presence of highly skilled labour and management which were hardly available locally. As a result, the anticipated expansion of the economy did not happen or any change was scarcely perceptible. In many cases, industrial infrastructure was over-dimensioned, many industrial fishing enterprises were over-capitalized due to subsidized interest rates and other subsidies and output was excessively expensive.

The attempt to industrialize fisheries did not positively contribute to the socio-economic development of the countries. Any growth observed was not related to the peoples needs and the wealth generated, if any, was hardly spread to the rest of the population.

Major trends of development consequent on the industrialization policy, which it should be remembered was not limited to the fishery sector, include: weak growth in productivity, increased national debt, poor export performance, deteriorating social conditions and growing pressure on aquatic resources due to the displacement of people from land. These trends were apparent as far back as the late 1960's (World Bank 1986, 1989, 1990).

## **2.2 Early attempts to revamp small-scale fisheries development**

Attempts were made to redress the situation and to give more attention to artisanal fisheries. Small-scale fisheries (SSF) were made sub-components of capital intensive projects or as part of rural development projects with emphasis on the provision of inputs and mechanisation. The initial mechanisation process generated its own set of problems. The process revealed the need for spare parts availability, maintenance and repair facilities, landing facilities, extension services, credit facilities, post harvest technology, marketing facilities and it also introduced or in some cases heightened the conflict between industrial and artisanal fisheries as they compete for ocean space and for particular types of fish (Allsopp 1985).

At the same time it became apparent that the promotion of technical development alone is not enough for the betterment of fisherfolk communities. Even increased income is not by itself all that the community needs. It is necessary to consider development in the broad context of the welfare of the fishing community as a whole. Improved social amenities and communication are essential, so too are roads, housing, education and health services. Indeed the full array of these facilities should be offered with a sound understanding of their value for the acceptance by and benefit of the fishery community.

The need to orientate objectives towards socio-economic uplift of the fishing population was obvious. The elimination of the isolation of the small scale fisheries sector from the large scale sector in planning and development efforts, the protection of the interest of small scale producers, and the need to integrate fisheries development with general social and economic development was recognized.

FAO organized a number of meetings to review existing experiences and to define what was needed. Indeed, at the Eighth Session of the Committee for Fisheries (COFI) held in 1973, the Committee requested FAO to convene an Expert Consultation on Small-Scale Fisheries to examine the problems of small-scale fisheries with special reference to formulating an improved approach to their development. The Ninth Session of COFI (1974) and the 66th Session of the FAO Council (June 1975) not only endorsed the recommendation of the Eighth Session of COFI but recommended that detailed development and training programmes be set up.

The Expert Consultation on Small-scale Fisheries development as recommended by the 8th and 9th Sessions of COFI was convened and met in Rome 8-12 September 1975. The major conclusion of this meeting was that there is no standard approach to the development of small scale fisheries and each situation should be assessed on merit. However, the consultation stressed that whatever the approach adopted it should provide for the widest integrated approach possible involving field oriented multidisciplinary team work.

Furthermore, the development process must involve fisherfolk population in the planning and execution process. The development approach should also focus on the community as a whole to upgrade incomes and the quality of life (FAO 1975).

### **2.3 Birth of Community Fishery Centre Concept, prelude to Integrated Approach**

A positive fall out of the expert consultation was the development of thoughts on the creation and functioning of Community Fishery Centres (CFC) defined as "a complex of facilities and services tailored to meet local needs" (FAO 1977). A Community Fishery Centre was conceived to be made up of a series of modules that ranged from the provision of workshops for repair and maintenance of boats, engines and gear, through landing facilities such as jetties and winches to the provision of community services. The CFC concept represented a functional integration strategy involving a mix of the different elements in the production process and the supply of goods and services. The rationale of such a development approach was presented at the Third Session/Meeting of the FAO Committee for Inland Fisheries of Africa (CIFA) in Bujumbura, Burundi in 1977 and was enthusiastically received (FAO 1978).

While the CFC concept was being refined into a methodology (Ben-Yami and Anderson 1985), international attention was also focused on ways to help local populations mobilize by devoting greater efforts towards their basic needs - a concept which took concrete form in the World Conference on Agrarian Reform and Rural Development - WCARRD (FAO 1979).

Two of the most important recommendations of WCARRD were that:

- the development of the rural sector should be within the context of integrated development;
- rural development should be achieved through the motivation, active involvement/participation of communities in the planning, formulation and implementation of development activities.

To buttress these recommendations, the 20th Session of the Conference called on all states concerned and FAO "to take effective measures which will assist in the establishment and strengthening of self-reliant and representative rural organization including rural women's and youth organisations so that such organisations can effectively and democratically participate in the implementation of the Programme of Action".

The plight of fisherfolk received special attention at the 1984 World Conference on Fisheries Management and Development convened in large part to consider the WCARRD recommendations more fully and suggest more specific ways of applying the principles and concepts discussed to the particular environment of artisanal/small-scale fisheries. The conference endorsed a Special Programme of Action for the Development of Small-Scale Fisheries (box 1) and integrated it with the recommendations of WCARRD thus giving full support to both the intensification of the development effort directed at the small-scale

fisheries in general, and the integrated approach to small scale fisheries development in particular.

**Box 1      Some Key Principles and Guidelines of the Strategy on Fisheries Management and Development**

- i. Since the problems of rural fishing and fish-farming communities are not related solely to fish production, the development of this sector can often be best approached within the context of integrated rural development. The principles adopted by the World Conference on Agrarian Reform and Rural Development should therefore find wide application in small-scale fisheries and aquaculture development.
- ii. Education and training and other forms of social investment should be made an essential part of small-scale fisheries development. More extension workers should be trained within cooperatives and small-scale fishing communities, in particular in fisheries technology, social welfare and community development and in the management and operation of small-scale enterprises and organizations. The link between extension and practical research should be strengthened. Due consideration should be given to the special role of small-scale fisheries in the economies of island states where they are often the major source of employment and foreign exchange earnings.
- iii. Active participation of small-scale fishing communities in the planning and formulation of development activities should be encouraged so as to ensure their successful implementation. To achieve these aims, it would be useful to provide such participation in some countries through coordinating bodies such as councils or unions or cooperatives.
- iv. Fisheries development programmes should recognize that women play often an important role in fishing communities, both in trading and processing, and provision should be made for enhancing that role.
- v. The cooperation and participation of fishermen is necessary to ensure the success of small-scale fisheries management schemes. Fishermen's organizations should be considered as a channel through which management decisions can become operative and technical/financial assistance delivered.
- vi. To ensure the well-being of small-scale fishermen on a sustained basis, it may be necessary in many cases to secure supplementary or alternative sources of income and employment for fishermen so as to reduce pressure on limited fishery resources, possibly by engagement in aquaculture.

Box 1 continued

- vii. The adaptation and modification of locally developed methods and equipment for use in small-scale fisheries should be carefully considered before directly transferring technologies developed elsewhere, especially the introduction of capital-intensive technology.
- viii. New and better methods of evaluating small-scale fisheries activities should be devised, taking into consideration not only technical and economic but also less easily measurable factors such as amenities of life, health, education and communications."

**Source Strategy for Fishery Management and Development Food and Agriculture Organization of the United Nations. Rome 1986, 26p.**

#### **2.4 Original concept of integrated strategy in small-scale fisheries development**

The Integrated Strategy endorsed by the World Conference on Fisheries Management and Development is based in part on the CFC concept which FAO had, through a series of meetings, refined and given rapid and intensive exposure for nearly a decade. The strategy views small scale fisheries development as a process meeting the growth and production objectives, and the more human aspects of life through the design of special programmes for women, promotion of self reliant, social and economic development in the community as a whole, based on the activation of local resources, with outside assistance. In other words the integrated strategy incorporates technical aspects of development, and socio-economic and organizational needs of the fishing communities.

Fisheries production involves a complex and interdependent chain of skilled and specialized operations, running from fisheries resource management and allocation through fish capture, handling, processing, marketing, consumption, including the support facilities, required to keep each of these links in the chain operating.

Furthermore, not all of the important legitimate and vitally urgent concerns of the men, women and children in fishing communities are directly and immediately linked to fish production. The grouping of fisherfolk in the artisanal fisheries sector is a natural and desirable phenomenon and they usually view their life as a more or less integrated whole. It is assumed that fisherfolk who are increasingly energetic and self reliant in identifying and solving problems in fish production will naturally at the same time turn those talents to consideration and solution of other problems such as water supply, sanitation, transportation/ roads, fuel, housing, education etc. The integrated strategy prescribes that these aspects also be included in the emerging development programme of the village through a methodology similar to that used in matters relating to fish production. The difference however is that the implementation and in some cases



the planning of micro-projects or activities would be done by other agents who are specialists in the particular discipline and not the fisheries staff.

The strategy for the Integrated development of small-scale fisheries has two main elements. The first element is a set of objectives. The second element is an outline (Guiding Principles) of what needs to take place in order to reach the objectives. Interposed between the objectives and the guiding principles is a lynchpin - a Fisheries Development Unit (FDU). The FDU is an integrated multidisciplinary team of specialist technicians and general extensionists responsible for providing technical and organizational backstopping for a fisherfolk community. It provides technical and managerial support for both the planning and implementation of programmes relying on the active participation of the fishing community in its actions (Ben-Yami and Anderson 1985). In this regard, it is fundamentally different from a CFC which represents a complex of facilities and services tailored to meet local needs.

The two main objectives of the integrated small scale fisheries development strategy are:

- i. to promote equitable, self reliant, economic and social development of small-scale fisherfolk in particular through access to the appropriate technology, physical and financial resources, proper organization skills and training necessary for the viable development of the fishing community;
- ii. to ensure that improvement in the capture, processing and marketing sectors are supported by the progressive modification of institutional and organizational structures so that ground gained was not ultimately lost when external assistance is with-drawn.

As originally conceived the strategy envisaged a coordinated approach built on four fundamental principles :

1. an integrated approach;
2. active participation of the artisanal fishing community;
3. mobilization of local development effort;
4. long-term technical support and in-service training.

**Integrated Approach:** the integrated approach was to take into account both technical and socio-economic needs of fishing communities and the strategy prescribed a two prongs approach.

The first deals with the process of transforming fish into a meal on the table (stock assessment, management, capture, post harvest technology, transport, marketing, consumption). This was termed **vertical integration** and is based on the premise that "... new techniques cannot be introduced to increase the catch unless processing capacities are also provided; boats cannot

be feasibly motorized unless a motor repair shop is installed along with a steady supply of spare parts; new capital intensive capture technologies cannot be proposed unless fishermen are given access to credit facilities" (Black-Michaud and Johnson 1985).

The other prong of the approach deals with the development of the physical production in the context of other needs of the fishing village society. Emphasis is placed on the development of the fishing community and not just the fishing sector. This prong was termed **horizontal integration** and is justified in that artisanal fisheries are not a transition to industrial fisheries but an enduring part of the fishery landscape of developing countries. Fisherfolk as all human beings are entitled to the conveniences and comforts of life as their urban counterparts (clean potable water, electricity, health, education etc) and there is a need to help develop alternative non-fishing income generating employment.

Briefly the strategy recognized that if vertical integration defines the development task as marine resource management but extends policy coverage of the trajectory of the commodity after it leaves the water, then horizontal integration defines the task as marine community assistance but expands policy coverage of human interaction to encompass the large society beyond the community.

**Active Participation:** this guiding principle is aimed at the empowerment of fisherfolk through participation and is in line with one of the recommendations of WCARRD (1979) endorsed by the World Conference on Fisheries Management and Development 1984 which states that "Rural development strategies can realize their full potential only through the motivation, active involvement and organization, at the grass roots level, or rural people, with special emphasis on the least advantaged".

The strategy specifically advocates that active participation by a small-scale fishing community in both planning and implementation of development activities is both an objective and an instrument which induces a climate of mutual trust and responsibility between intended beneficiaries and the agents, permits fisherfolk to best determine their needs and priorities and contributes to the sustainability of actions and initiatives. But to be effective the strategy lays emphasis on the need for the people to be organized, and that the beneficiaries constitute an integral part in the information gathering system to facilitate monitoring and periodic evaluation of the impact of projects.

**Mobilization of Local Development Effort:** fisherfolk do have the capacity to carry out a whole range of activities if given the incentive, the stimulus, the training and the confidence to do so. The strategy recommends therefore the mobilization of local and national resources, skills, finance, and markets for the development effort, so that outside support remains supplementary or catalytic. Progress that is locally earned will be locally owned, still ready and working after outside experts or facilitators have departed.

**Long-Term Technical Support and In-Service Training:** three major thrusts are involved in the integrated approach. These are technology transfer, socio-economic concerns and resource management. These thrusts may be new or may need continuous updating, and in the endeavour to improve the organizational and managerial skills of FDU and fisherfolk,

the strategy recognizes long-term technical support and in-service training, at appropriate technological levels, in order to sustain the development of the fishing communities.

Over the years, three more have been added:

**Fishery Resource Management:** the strategy advocates that small-scale producers be involved in the management of the resource and that they should also be assured a share of the total available resource.

**Gender and Equity:** with regards to gender and equity, the strategy recommends that explicit attention to enhancing the economic and social role of women in fish processing and marketing as well as in family maintenance be encouraged through the institution of special programmes for women.

**Monitoring and Evaluation:** it stipulates that a control system of planning, monitoring, evaluation and revision, be integrated into the very fabric of projects and their components and that the beneficiaries should be actively involved in these processes.

To be relevant such prescriptions must be based on an understanding of the economic, social and cultural characteristics and processes of the fishing communities for which they are given. The integrated strategy is not a closed concept. It is amenable to a variety of development paces and situations. It also requires situation specific approaches and makes sense only in the context of local conditions. Hence the guiding principles were expected to be adjusted to the specific conditions of the fishing community taking into account such factors as the fishery resource base, the human and material resources available. Some key differences between the integrated approach and the conventional approach to small-scale fisheries development are summarized in table 1.

**Table 1 Some differences between conventional and integrated approach to artisanal fisheries development.**

	Conventional Fishery Development Project	Integrated Fishery Development Project
Village or Community	Basically healthy or being attended to.	Not fully catered for and suffering from some lack of amenities for health, education or welfare.
Fishery	Facing specific problems or bottlenecks requiring technical or organizational solutions.	Facing one or more difficulties, some of which may require social or non-fishery sector actions.
Beneficiaries	Fishermen and/or fish processors, and sometimes only the more progressive fishermen and fish processors.	All of the people in the community should benefit directly or indirectly, though fishermen are the core beneficiaries.
People's Participation	People's participation limited to Government Fisheries Department and some leading fishermen or fish traders.	People's participation necessary at all levels and for all project activities in both decision making and implementing.
Project Executor	FAO Fisheries Department and Government Fisheries Departments.	Might also involve other FAO Depts., UN Agencies, NGOs, Consulting firms, Local Government Organizations.
Nature of Project	Short-term, 2-3 years. Specific programme of Work. Activities mainly directly fisheries.	Long-term, 5 years minimum. Flexible programme of work. Many activities in non-fisheries sector.
Economic Results	Income generation not directly needed for project success.	Income generation essential to fund social or community activities.
Monitoring and Evaluation	Usually straight forward with clearly defined objectives and success criteria.	More difficult to define and assess. Requires data or feedback from social as well as technical fields.

### 3. Applications of the integrated strategy

#### 3.1 Programme for Integrated Development of Artisanal Fisheries in West Africa

The strategy was expected to be implemented in the form of activities or projects carried out through regional or sub-regional small-scale fisheries development groups. These groups were expected to consist of small teams of internationally or regionally recruited experts based in the region who would provide assistance and advisory services to national development teams working on integrated small-scale fisheries development.

The Programme for Integrated Development of Artisanal Fisheries in West Africa (IDAF) was initiated to help some 20 coastal states from Mauritania to Angola which wish to develop and manage their artisanal fisheries through participatory and integrated approaches.

The project was approved on 7 December 1983 but had in fact become operational some six months earlier, on appointment of the coordinator, and with the preparatory work that he was able to undertake. Initially IDAF was financed by Denmark and Norway. The second phase of the programme which started in January 1989, is however entirely financed by the Kingdom of Denmark through Danish International Development Agency (DANIDA).

There are about 600,000 fishermen in the region covered by IDAF, of whom 200,000 are full time. There are also about 1,800,000 positions in the secondary sector of fish processing and distribution, activities mainly carried out by women. To this must be added fishing material and fuel distribution, as well as the marine carpenters who depend largely on the sector's good economic health.

**IDAF's primary long term/development objective** is to help the West African countries which wish to develop and manage their artisanal fisheries so as to draw from them the maximum economic and social advantages, thanks to an approach centred on the community and aimed at improving productivity and increasing the well-being and autonomy of the fishermen, those who are responsible for processing and distributing the fish, and all those who work in this sector.

**The immediate objectives of the Programme** have remained basically the same for the two phases :

1. to improve the effectiveness of local projects for the development and management of artisanal fisheries;
2. to implement a Model Development Project in Benin (phase I only);
3. to develop and test suitable approaches and monitoring systems for the development of different types of artisanal fisheries;
4. to encourage the establishment in different countries of a system of Fisheries Development Units (FDU);
5. to increase regional technical competence in the development of artisanal fisheries;
6. to establish a regional system for gathering and interchange of information and knowledge on the different types of West African artisanal fisheries, their characteristics and their development trends.

The targeted direct beneficiaries are the staff of the Department of Fisheries in the 20 countries, associated projects and research institutions, while the ultimate beneficiaries are all persons involved in the artisanal fisheries sub-sector in the region, that is, artisanal fishermen themselves and the fisherfolk communities.

The counterpart agencies of IDAF are the Departments of Fisheries in the 20 participating countries, and among them the Department of Fisheries of the Republic of Benin where IDAF has its regional Headquarters and the Department of Fisheries of the Republic of Guinea where a sub-regional office was opened in November 1990 with the aim of covering more specifically Guinea, Guinea Bissau and Sierra Leone.

The project reports to the sub-committee on development of the FAO Committee of Eastern Central Atlantic Fisheries (CECAF) and to the IDAF Liaison Officers Meetings which are held annually.

### **3.2 Sites where strategy has been tried**

In addressing the particular needs of artisanal fisheries using the guiding principles of the Integrated Small-Scale Fisheries Development Strategy, the IDAF Programme works and collaborates with a number of associated projects, research institutions and the Departments of Fisheries in the region. In this regard, the integrated strategy has been tried or applied in the following projects (Table 2):

**Table 2. IDAF Associated Projects**

Country	Project Title	Funding Partner	Date Started
Benin	Model Project	DANIDA	1984
Benin	Project for Development of Lagoon Fisheries	GTZ	1986
Cameroon	Project for the Development of Fisheries in the Lagdo Reservoir	EDF	1982
Côte d'Ivoire	The Lagoon Aby Fishery Development Project	IFAD	1985
Gabon	Projet pour la Promotion des Pêches d'Owendo(Promo-Pêche)	EEC	1983
Gambia	Project for Marine Artisanal Fisheries	EDF	1979
Gambia	Project for Development of Estuarine Fisheries	Italy	1988
Guinea Conakry	Establishment of Artisanal Fishing Centre in the Kamsar Region	UNDP	1988
Guinea Conakry	Development of Small-scale Fisheries on Kaback Island	UNDP	1988
Ghana	Integrated Development of Fisheries on the west bank of Volta Lake (Yeji)	UNDP	1989
Nigeria	Integrated Rural Fisheries Development	UNDP	1979
Nigeria	Artisanal Fisheries Development Projects in Akwa-Ibom, Rivers and Cross Rivers States	IFAD	1991
Sierra Leone	Project for Development of Tombo Fisheries	GTZ	1980
Sierra Leone	Artisanal Fisheries Community Development Project (AFCOD)	EDF	1989
Sierra Leone	Integrated Fisheries Development in Rural Fishing Village in the Shenge Region	UNDP	1989
Senegal	ATEPAS, Projet pour l'Amélioration des Techniques de Pêche Artisanal au Senegal	CIDA	1973
Zaire	Appui à la mise en oeuvre du Plan Directeur des Pêche au Zaire	UNDP	1988
Regional	INFOPECHE, Fish Trade Information and Cooperation Service in Africa	Norway	1985

### 3.3 Activities and outputs

The start up of many of these projects was not without substantial difficulties. Some of them were initiated well before the adoption of the integrated strategy for small scale fisheries development in 1984. These projects were driven by the momentum of the CFC concept. This is true of the first phase (1979-1987) of the Gambia project and the initial stages of the projects in Nigeria, Gabon, Cameroon and Sierra Leone. The CFCs were moreover overcapitalized and overdimensioned, while some development workers did not differentiate between the CFC concept and the integrated approach.

not given a choice to accept or reject it. Although planned with the benefit of the people in mind, it was not always so perceived by them.

Consequently, the structures were either not accepted by the target groups or were underutilized. In some cases, for example in the Gambia, Government resorted to the use of force involving such tactics as removing of the traditional thatched sheds of fisherfolk pitched along the beach in a bid to force acceptance and use of these structures. (IMM 1992, N'jie 1993). In Gabon, owing to incessant failures over the use of "Artisanal Fisheries Regrouping Centre" at Owendo near Libreville, the Government in 1988 turned over the management of the Centre to a private company "Promo-Pêche". The Centre was originally built in 1983 with assistance from the EEC (Renaud and David 1993).

From these early setbacks many of those involved in artisanal fisheries projects in West Africa and in particular the IDAF Programme were convinced of the need to change fishing community participation in development from a passive and ephemeral stance to a more active and sustained status. This meant that in the implementation of the integrated strategy emphasis would be laid on:

- setting up Fisheries Development Units (FDU);
- establishing and/or strengthening local institutional structures and develop local organizational capacities in fishing communities;
- determining the appropriate mix of vertical and horizontal integration activities taking into account the specific conditions of the milieu; and
- identifying the pathway along which to obtain and sustain the participation of the community in the development process.

### 3.3.1 Establish and/or Strengthen Local Institutional Structures

Almost all the projects started after the adoption of the small scale fisheries integrated development strategy in 1984 laid emphasis on the active involvement of the community, government institutions at different levels and various local institutions. They also adopted a multi-lineal rather than singular process in the execution of their activities (Anon. 1988). This was or is being pursued through a stepwise approach which consists of setting up Fisheries Development Units (FDU), local institutional structures for participation or management structures and encouraging the formation of user groups in small-scale fisheries development projects.

#### a) **Setting up of FDUs**

Fisheries Development Units (FDU) have been set up in twelve projects and charged with among other things, the responsibility of providing technical backstopping to fishing communities and to create and encourage the setting up of functional community structures that would eventually ensure that activities be self-sustaining and which would also enhance the community's bargaining power for outside support especially from Non-Governmental Organizations (NGOs).

The importance, scope and efficiency of the FDUs differed between projects and also influenced the path treaded by the various projects in attaining the goals of the integrated



strategy. The FDUs of the Owendo project in Gabon, Lagdo in Cameroon and Lagune Aby in Côte d'Ivoire were relatively weaker than those of Yeji, Kaback, Shenge, AFCOD in Sierra Leone, and the Model Project in Benin (Anon., 1991).

#### **b) Setting up of local institutional structures for participation/management structures**

The second most important activity undertaken was the setting up, usually under the aegis of the FDU, of the local institutional structures for participation in community activities. These structures were given different names in the various projects for example: Fishery Centre Management Committee (FCMC) in the Gambia; Village Development Association (TVDA) in Tombo, Sierra Leone; Committee for Yeji Fisheries Complex (Ghana); Village Development Council in Kaback; Village Cooperative Society in Shenge, Sierra Leone; etc...

The organizational set up or local institution for participation represents a management structure that identifies, prioritises and coordinates activities at all levels to fit them into an overall strategy or plan of work so that they are complementary and do not work against one another. It is also the lynchpin for the mobilisation of both human and material resources and also acts in some cases as guarantor for loan applicants. The management committee also serves as Liaison Officer between the FDU and the community, and also between them and institutions. As such, it helps to break down departmental loyalties so that the needs of the client are paramount.

The setting up of these management structures was a formidable task for several reasons:

- the administrative, economic and political environment were not at all conducive to this approach which departed from traditional processes;
- there was general apathy against such soft measures as bottom-up planning, institution strengthening and human resource development;
- in almost all the sites where the integrated strategy has been tested, village committees of one kind or another existed. However, these committees for the most part traditional village governments, had become politicized under the one-party state apparatus, or under formally centrally planned economies; they were stratified and autocratic and also bore aprons of social welfare connotations.

The first task was thus to convince existing structures that the project did not intend to replace the traditional village government of elders and politicians, but rather to create a forum where all social groups particularly women and youth could also be represented. This meant developing new attitudes and a new understanding of what artisanal fishery development with outside support can achieve and the extent to which that depends on a high degree of participation of people at all levels of society in the decision making process. It also meant breaking traditional tendencies of jealousies and autonomy within government departments; tendencies which seem to make them less enthusiastic to act on directives from

another department or to make contributions to a project for which another agency will get the credit. Furthermore, it meant making a major change in the government's thrust in rural development, that is, replacing government policy of giving incentives with a policy that emphasis self-organization and self-reliance - in which local resources are mobilised and diverted to longer term priorities of restructuring or uplifting the social structure of the community thus making it less dependent on direct external sources.

Inspite of these difficulties, many projects have established or transformed existing local structures from basically social to economic groupings with representatives from the different socio-professional strata of the community (Horemans and Satia 1993). A major defect of some of the management structures, for example the VDC of Kaback, is the marginal role played by women. Although they are mobilized to participate in community activities they do not take an active part in the decision making process. Connected to this is the issue of equity. It was observed that when improvements were introduced in a community, the more "privileged" or enlightened persons tended to be the prime beneficiaries.

These local institutional structures for participation have been instrumental in identifying micro-projects, in mobilising local resources and in the implementation of a number of community based activities. Members of these management committees have received training in management and some of them particularly those of the Gambia, Tombo, Yeji and Shenge have legal recognition. However, for virtually all of the existing local institutional structures training in management, in the assessment of their own performance, in the evaluation of activities undertaken by the projects, as well as training in the management skills to enable them run a fishery unit as a business enterprise is needed.

#### **c) Establishment of User Groups in Fishing Communities**

The other institutional initiative that has been promoted is the effort to encourage the formation of user groups; that is groupings of individuals of the same trade or activity within the fishing profession or community. The number of these user groups vary from one project to another.

USER GROUPS	YEJI	KABACK	The GAMBIA
Canoe and boat building	x		x
Fish processors(1)	x	x	x
Fish traders	x	x	x
Boat owners	x		x
Out board motor mechanics	x	x	x
Out board spare parts dealers	x		
Fishing nets dealers	x		
Salt sellers	x		x
Mutual Guarantee Groups G5 (2)		x	

(1) *In the Gambia, fish processors are further broken down into Associations of Women Smokers, Women Driers, Men Smokers and Men Driers.*

(2) *Group of five individuals (G5) of the same activity (fishing, transportation, agriculture, etc..) working together and providing mutual support e.g. guaranteeing loans.*

The most basic and popular user groups are the fish traders and fish processors dominated by women in all the sites where the integrated strategy has been tested.

Founding members of user groups have been helped to define and adopt a set of rules and regulations including procedures for disciplinary action against members who do not attend meetings or make their contributions. In most user groups, members are expected to make small contributions to the association's fund; thus developing a savings and credit system at the village level. Savings are often mobilized giving the members access to resources hitherto not easily available to them. Like traditional rotational savings clubs, the members receive in turn and defaulters know that they are depriving the next member of his or her loan.

User groups have been instrumental in changing the socio-economic land-scape of fishing villages. For example in the Gambia, women fish processors in the endeavour to concentrate more on their fish trading, smoking and sundrying at Gunjur Fishery Centre, have built a creche (not yet operational) and from their savings have enlarged their processing infrastructures (IDRO Consult 1992). In Kaback, a 10% surcharge levied by decision of the VDC itself on the purchase of outboard motors and spare parts, are pooled in a community account and used to finance community investments such as water wells, road construction, silos etc..

In Yeji, the Association of Boat Builders made a donation of four improved boats to the government. Furthermore, the use of more steadier boats equipped with better operating outboard engines, thanks to the Association of Outboard Mechanics and Repairers contributes to reducing the incidence of accidents on the lake. The Association of Salt Dealers also operate 10 store houses in Yeji, thus affording protection for their goods against bad weather and ensure the provision/availability of high quality fishery products (Braumah 1992, Houéhou 1993). Similar initiatives have been tried with varying success in other projects (Oulare and Camara 1993, Islam and Koroma 1993, Wagner 1993).

### 3.3.2 Promotion of vertical and horizontal integration

The setting up, restructuring and/or strengthening of institutional structures provide project teams with the basis on which to initiate and meaningfully effect vertical and horizontal integration activities in many of the fishing communities.

#### a) **Vertical Integration Activities**

In our case studies project sites as well as in all the other projects in the IDAF region, the greatest emphasis was placed initially on activities directly related to fishing (vertical integration). This might be due to the bias of biologists and fishing technologists who have traditionally been at the helm of these projects. In the particular case of Kaback however, when the project was being identified, the fishermen, boat owners and even fish smoking women desperate to get fish, insisted that their first priority was fishing gear, outboard motors, spare parts and grilles for smoking platforms. The emphasis on vertical integration is also a reflection of the need to shield artisanal fisheries from industrial competition and the fact that budgetary provisions were not *a priori* made for community development activities; the driving force for such activities being the mobilisation of local human and financial resources on the one hand and stimulus from unidentified donors and NGOs on the other hand.

The principal fishing related activities include the provision of fishing inputs usually through a project linked credit scheme and improvements in fishing techniques and fish technology. These are exemplified by the setting up of inputs sales shops, boat building sheds, mechanics or repairs workshops, outboard engines performance testing tanks, fish processing (smoking, drying, salting) structures, provision of insulated boxes etc. with corresponding training, technical and technological demonstrations (Adebiyi 1993, Atti-Mama 1993, Drammeh 1993, FAO 1991).

These improvements contributed in expanding fishery activities in the various project sites. In Kaback for example between 1989 and April 1993, the number of canoes increased by 49%, gear and nets by 105%, and outboard engines by 67%. The rate of motorization rose from 75% in 1988 to 86% in 1993; the number of fishermen from 600 in 1987 to 800 in 1993, fish production of approximately 2,500T in 1988 was more than 6,T in 1992 while revenues to fishermen at Matakang increased by 98% from 116,F in 1988 to 230,000 in 1991 (Labour 1991) (1 \$US = 950FG).

In the Gambia, the number of persons involved in fishing activities at the six coastal target sites rose from 1270 persons in 1987 to 3 500 in 1992, and the rate of motorisation from 55% in 1987 to 84% in 1992. Furthermore the centres of Gunjur, Tanji and Brufut are economically viable, with yearly incomes after salaries and maintenance conservatively estimated at D27,500, D19,500 and D13,500 respectively (1 US\$ = 8.5 Dalasis). Sanyang is also viable but not Kartong and Batokunku (Callerholm and Jallow 1991, IMM 1992, N'jie 1993).

## b) **Horizontal Integration Activities**

As the primary fishing activities became more successful, the need to undertake ancillary activities and other community related activities such as roads, water supply etc. became more urgent in order to improve prices for fishery products and to increase returns to labour. Furthermore, intense importance given to vertical integration also tended to split the fishing community into benefitting and bypassed groups. Sad enough the phrase fisherfolk communities would seem a misnomer as in several such communities, only a minority of the population actually fish or do fishery related activities. Consequently, increased vertical integration tended to stimulate the emergence of horizontal integration activities. For example in the Gambia, pre-project access to the beaches was difficult, via tracks or unimproved roads. The canoes were hauled up above the tidal line but the fishermen had to carry gear, engines and other items back and forth from the village every time they went out. With increased vertical integration activities, all fisheries project villages have laterite road links to main roads and all fisheries centres have feeder road connections (IMM 1992, N'jie 1993).

In Shenge, the road from the village to the district headquarters (Moyamba), a stretch of about 80 km was up-graded with funds provided by the International Labour Organisation (ILO) while the UN Capital Development Fund (UNCDF) made additional funds available in favour of community development activities (Islam and Koroma 1993). In Benin, communication was a major constraint in several coastal fishing villages. Access of villages and encampments to and from the main interstate highway (Nigeria - Benin - Togo) was by means of rough and often impassable tracks. All produce and supplies had to be carried either by professional porters or individuals. In 1986, the Benin Model Project funded the upgrading of the village track between Pahou (market town situated on the main road with health centre and other amenities) and Avlékété, a major fishing village. Planning of the road and organisation of labour was undertaken by the villagers (FAO 1991). In Kaback, through human investment the tracks within the fishing villages were improved and made practicable (Atti-Mama 1993).

Other important community socio-economic activities that have been carried out include improvements in water supply, installation of radio communication, construction of health centres, primary schools, creche, silos, light houses at landing sites, reforestation to protect the environment and provide fuelwood for smoking fish, the provision of village level banking facilities, and alternative non-fishing income generating activities such as market gardening, knitting and crocheting programmes, salt production, community run supplies shops etc.. (Wagner 1993, Islam and Koroma 1993, FAO 1991, Braimah 1992, IMM 1992, IDAF 1991).

Deliberate efforts were also made to address gender specific issues and to afford women equal opportunities for access to FDU assistance. For example, there were female experts in all the projects. Literacy and numeracy training were organized specifically for women; special credit schemes were created in Kaback and in the Gambia projects for example for women processors and assistance was also given and women encouraged to undertake a variety of alternative income generating activities. The IDAF Programme also organized a round table discussion on women's activities in May 1990, where persons responsible for these activities in eight countries attended. The round table afforded

participants an opportunity to exchange experiences concerning women involved in fishery activities and community development as has been applied in field projects (Houndékon, Tempelman and Ijff 1990, Tempelman 1990).

Community or horizontal integration activities represent only a small fraction of initiatives in many projects, but it is principally through community related activities that the projects have been able to mobilize a large proportion of the population towards its objectives of popular participation and integrated development. Much of the credit for such achievements goes to the organizational structures for participation existing in the projects.

### 3.3.3 Community involvement in the development process

Peoples participation is the cornerstone of the integrated development approach as it induces a climate of mutual trust and shared responsibility between intended beneficiaries and the project team. Strong community involvement in the diagnosis of local problems, in the formulation of appropriate sets of actions and in the implementation of the agreed action plan is essential in the empowerment of fisherfolk and is also useful in attaining one of the major guiding principles of the integrated strategy: the mobilisation of local human and material resources for community action.

However, the difficulty was identifying the pathway along which to obtain this participation as:

- there was the common attitude that development projects were occasions to be exploited rather than opportunity for self-development;
- inputs in the past had been imposed and given as "packages", whereas the integrated strategy foresaw inputs being offered as menus from which fisherfolk had the opportunity to choose;
- some project teams or professional experts usually felt they had all the answers, while government cadres had difficulty accepting their potential role as catalysts or facilitators in the new development process.

In the face of these complications, a number of approaches were used to obtain fisherfolk participation in projects. In addition to the setting up, restructuring and/or strengthening of institutional structures, the participation of government institutions at different levels and various local institutions was solicited in the promotion and implementation of projects. Although in some projects (Yeji, AFCOD, Tombo, the Gambia) substantial progress was made in this regard as evidence by the variety of community based, inter-agency and alternative non-fishing income generating activities undertaken; by and large, coordination mechanisms tended to be weak and ineffective. When effective inter-agency activities were undertaken, it was usually on the basis of personal relationships. Hence, although the implementation of the integrated strategy has contributed in strengthening the institutional capacity of the Departments of Fisheries and local communities in the participating countries, its impact on other departments or agencies of national administrations has been superficial.

Human resource development was a major concern in many projects. Training included theoretical and practical fishing, boat construction and outboard engines maintenance and repairs, practical training for women in fish processing, in market gardening and needle work, as well as literacy and numeracy, training for management structures and loan committees (Adebiyi 1993, Atti-Mama 1993, Drammeh 1993, Landry and Tempelman 1989, 1990, Wijkstrom 1986). Although towards the end of the Gambia project life, business management training was introduced, a major shortcoming in the training programmes in all projects has been the absence of emphasis for skills needed to run a fishing unit as a business unit. The capacity of staff of IDAF associated projects as well as those of cadres in the various Departments of Fisheries has also been improved through study tours to projects and through a series of workshops and Working Groups on specific topics (planning, resource management, statistics, credits, sustainability etc.).

The introduction of PRA techniques first in the Kaback project (Appleton 1991) and later in the projects in the Gambia and Yeji, provided these projects a two-way approach to solving some problems of development, blending local empirical knowledge with modern science and experience gained elsewhere. The use of PRA techniques has also resulted in a devolution of decision making powers to fisherfolk. For example, in both Yeji and the Gambia, fisherfolk are aware of the limited nature of the fishery resource and see the risk of over-exploitation. They intimate that increasing effort, illegal fishing, encroachment of nursery grounds by trawlers and climatic changes are probably responsible for the state of affairs. Even more significant is their cry for better fishery management interventions.

As a result of the "failures" encountered in the first phase of the Gambia project, due consideration was given to the active participation of leaders and the community in the second phase. A particular case in point was the use of local artisan builders and locally available materials for the construction of the needed facilities. Collective human investment in realising micro projects was also a common feature in other projects. Local entrepreneurs have also shown interest investing in the community (canteens, spare parts and fishing gear stores etc.) while governments appreciate the limits of their interventions/efficiency. In the Gambia for example, the ice-plant at the Brikama Centre was privatised, so too is the distribution of fuel for fishing operations. Similarly, the Owendo Centre in Gabon was also privatised in 1988.

A summary of the principal micro-projects initiated by the local institutional structures and undertaken with community involvement in Yeji, Kaback and the Gambia project sites are presented in tables 3, 4 and 5.

However, the mobilisation of local development effort has been hampered by inadequate information on socio-economic concerns and cultural diversities in fishing communities, as well as incomplete knowledge of the human factors connected with the ways women and men organize the use of their time and other resources. The collection of such information is time consuming and the approaches also have to be situation specific and these have not facilitated the task of mobilising local development effort. Furthermore, the catalytic mobilisation of resources, particularly finances, for non-fishing activities is problematic and as such raised hopes may not be satisfied.

**Table 3. Summary of principal micro-projects in the Yeji Project undertaken through Community Involvement**

Description in mini-project	Location	Beneficiaries and target population	Responsible Organ/Agency	Observation
Boat building workshop	Yeji	Fishermen, transporters and boat owners	Boat Builders Association; project provides backstopping	Operational
Outboard repair workshops	Yeji and other locations	Fishermen and transporters	Outboard Repairers Association	Operational
Village immunization programme	Yeji principally but also other villages	Women and children	VDC plus Ministry of Health	On-going
Improve chorkor smokers	Yeji	Fish processors and traders	VDC, Food Research Institute	Operational
Stores for salt	Yeji	Fish processors	Local Entrepreneurs	Operational
Literacy and numeracy Programme	Fishing villages	Fish operators particularly women	VDC and Ministry of Education	On-going
Woodlots and orchards	Yeji and other fishing villages	Fish operators; community	VDC, Dept. of Forestry	On-going
Outboard motor spares parts	Yeji	Fishermen, boatowners and transporters	Local initiatives	Operational have mobile shops
Drawn down farming	Yeji	Fish operators and community	VDC/Extension Service	On-going



**Table 4. Summary of principal micro-projects in the Kaback Project undertaken through Community Involvement**

Description of mini-projects	Location	Beneficiaries/target population	Responsible Organ/ Agency	Observations
Mechanic workshops	One each in the 3 villages	Fishermen, and transporters	VDC, FDU and user group	Operational
Electrification of landing sites	All 3 villages	Community	FDU and VDC	Operational
Rice husking machines	One each in Khunyi and Konimodia	Community and neighbouring villages	VDC and FDU	Broken down since 1992
Mini-light houses	Khunyi and Konimodia	Community	VDC	Operational in Khunyi, partially in Konimodia
Improved banda of 7 metallic smoking tables	Matakang	135 fish smoking women and fish traders	FDU	Partially operational
Well improvements	3 wells in Matakang	Community	VDC and AFVP	Operational
Radio communication	All 3 villages	FDU, VDC, Community	VDC, FDU	Operational
Track rehabilitation	Matakang	Community	VDC	Practicable
Outboard engines performance testing tanks	All 3 villages	Fishermen, transporters boat owners	VDC and user group	Operational
Village storehouses	One each in the 3 villages	Community	VDC and FDU	Operational
Built-in ice boxes	Matakang and Conakry	Fish traders, fishermen	FDU	Used in Conakry but not in Matakang
Credit: (i) Investment	All 3 villages	60 fishermen, 52 women and 3 transporters	FDU	Operational
(ii) Operation	All 3 villages	135 women and 30 farmers	FDU	Operational

**Table 5. Summary of principal micro-projects in the Gambia Project undertaken through Community Involvement.**

Description of mini-projects	Location	Beneficiaries/target population	Responsible Organ/Agency	Observations
Vegetable gardens	All villages except Gunjur	Women	Women's Associations	Operational but problems with salt water intrusion in Batokunku
Creche	Gunjur	Children	Women Processors User Groups	Not operational
Praying ground	Tanji and Gunjur	Community	FCCM	Operational
Additional improved smoking houses, and drying racks(1)	All six villages	Fish processors and fish traders	FCCM and user groups	Operational (additions being made)
Additional gear stores and cash savings boxes(1)	All six villages	Fishermen and fish operators	FCCM	Operational, additions being made and rented for non fishing purposes
Literacy and numeracy	All six villages	Fishermen and operators particularly women	FCCM and non-formal Education Unit	On-going
Wind powered water wells and stand pipes	All six villages	Community	FCCM	Operational but salt water intrusion problems in Batokunku
Shops, canteens and public toilets	Brufut	Community	Local entrepreneurs	Operational
Shops and canteens, fuel distribution points	Five villages except Brufut	Community	Local entrepreneurs	Operational
Mechanic repairs shops	All six villages	Fishermen, boat owners and transporters	Privatised	Operational
Ice plant	Brikama	Fishermen, operators and entire community	privatised	Operational
Fuel wood plantation	Salagi	Community particularly fish operators/traders	Forestry Department	Enters into production end of 1993; drought problems

(1) Built using proceeds of renting out the various facilities constructed initially by the project. Community also ensures maintenance of the facilities provided by the project or Government at the centres. These include: access roads; radios in the different Centres etc.

Much is yet to be accomplished to ensure the active participation of fisherfolk in the development process, but what has been done so far has opened the doors to new learning horizons for erstwhile sceptical and indifferent fisherfolk. Participation has given them more confident perspective on their situation and on what they can do as a collective community. The empowerment of fisherfolk has contributed to a symbiotic relationship between FDU and management structures and the fisherfolk as a whole (Wagner 1993, Islam and Koroma 1993, Houéhou 1993, Atti-Mama 1993) and strengthened their acumen for bargaining and soliciting assistance from donors and NGOs (FAO 1991).

### 3.3.4 The Mix of Vertical and Horizontal Activities

In addition to such factors as the state of the resource base, community participation, mobilisation of local resources and gender and equity, the availability of credit was a major factor that affected the extent of integration of activities in fishing communities. This is so because credit is essential to promote new entrants into the sector, modernize equipments and ensure efficient production of quality products. Efforts were made to introduce and in some cases revamp the credit facilities to fishing communities. Almost all projects have a project linked credit scheme. In the endeavour to better understanding credit mechanisms in the sub-sector, participants from the schemes exchanged experiences on the subject at a workshop organized by FAO/EEC/CEASM in Abidjan in September 1991 (FAO 1992).

Unfortunately recovery rates in all but a few projects have been disappointingly low due for the most part to administrative and technical weaknesses. At times non-repayment is not due to bad faith but is influenced by extenuating circumstances. Some loanees for example did put money aside for loans repayment but often found themselves without cash at the deadline. This tendency was aggravated by the social obligation to share any cash in one's pocket with friends and relatives. To militate against this, training programmes in book keeping and financial management were instituted in a number of projects. The Gambia project went a step further by installing cash savings in-built boxes in the CFCs, and later rural banking facilities were extended to the villages.

In Kaback where the best repayment rates, over 80 % have been obtained, the supply of credit is made to be demand driven and there are no standard packages. Credit is calibrated to the production needs of the borrower and supplied in appropriate quantities. Another significant aspect of the credit scheme in Kaback is that it is fashioned on the Grameen approach with an added specificity : a self-imposed 10 % surcharge on outboard motors and spare parts. The proceeds of this surcharge are pooled and invested in the development of service infrastructures. The Tombo project also has a surcharge on credits (Wagner 1993).

Experience gained with the evolution of the integrated strategy in the region has shown that one should not adopt a *priori* positions on the matter of which comes first, vertical or horizontal integration, but should constantly consider the trade offs between the two policy priorities. Every development project should be more or less diagonally integrated and the gradient should change over time in response to changing conditions. Both fish and people are important but we need to find the unique proper slant between vertical and horizontal priorities that best fits a given case. The manner in which the integrated strategy

has been applied in the Shenge project epitomises this hypothesis for a resource-rich site while the Benin Model Project is an example of field application in a resource-poor environment (see Box 2).

### **Box 2. Integrated strategy vis-a-vis resource base**

**In Shenge** the project focused on fisheries, based on what people could do for themselves but systematised within a fisheries structure working in the community. First, emphasis was placed on vertical integration, then on horizontal integration and now renewed emphasis was placed on fisheries/technical aspects, building on good conditions previously established through comprehensive socio-economic and basic infrastructure work (cooperative, credit scheme, monitoring unit, road, health, education, etc...). As the resource is abundant, emphasis on vertical integration seems appropriate and encourages full timers and increases their and the government's stake in the fishing process. With care and foresight, the two prongs of the approach could continuously provide support and stimulate each other. However, the major challenge is to determine the threshold of momentum that permits the system to become self-sustaining.

In terms of setting, the Shenge project is based in the village and project staff live with the community in the village. Ethnically, the 8 villages affiliated to the project are mixed and of migrant stock but the villagers show a willingness to stay in the area, particularly as the inland dry fish markets can be reached through Moyamba and Tombo. Sierra Leone is not a member of the CFA country group and does not have a convertible currency, the revolving loan fund for the importation of essential items of fishing gear and equipment is highly appreciated by the community.

**The Benin Model Project** was based in Cotonou, from where it proceeded to work in the coastal fishing villages. As village fishermen were assisted to become more productive, they mostly elected to move to Cotonou port which formed a much better base of operation. The villages were small and had only slender resources in terms of land, soil, water, trees, facilities or amenities. The fishery resource base was limited while ethnically, the Benin village fishermen lacked social-cohesion.

The project however had considerable success with new methods of fishing particularly bottom-set gillnetting on offshore reefs, and with the installation of propulsion engines on large fishing canoes. Initial burst in production encouraged improvements in fish handling and the upgrading of traditional fish-smoking practice, as well as the development of ancillary activities. However as the resource base was poor and as more progressive fishermen left the villages, village work focused increasingly on income generating activities for women. The poor resource base and lack of social cohesion have contributed in making neither of the prongs in the integrated development process to be sustainable.

### 3.3.5 Factors contributing to success, failure or sustainability of actions

Applications of the integrated strategy in artisanal fisheries in West Africa indicate that certain conditions predispose a locality to success. These are availability of a rich fishery resource base, isolation and lack/inadequacy of social facilities in the community. These account for the early failures registered in Owendo (Gabon) and the success in Shenge, Kaback or Yeji. However, even when the three conditions stated above are prevalent, the degree of success is influenced by two interrelated factors namely : the effectiveness of local organizational structures and the degree of peoples participation. Despite the success registered in a number of projects, these organizations with the possible exception to a few localities in The Gambia, are in an embryonic stage. They have not actually had enough time to take their own decisions or even make their own mistakes and acquire skills and attitudes to take over full responsibilities for the integrated strategy. They need further strengthening through training in management, community organization, assessment of their performance and in the management skills needed to run a fishery unit as a business.

Peoples participation and its corollary the mobilisation of local resources have contributed to success through changes in mentality and attitudes both on the part of local institutions and the community. These changes are small but in view of their influence on present and potential accomplishments they are important. The majority of staff in Fisheries Departments and those of local institutions now show a willingness to empathize with the population and to attend to their welfare in the pursuit of their duties. Local communities are gradually becoming aware that governments cannot do rural development, they can only

provide the enabling environment and access to technological knowledge which give fisherfolk, whether individual or through their own associations, the incentives and opportunities to improve their living conditions. However, there is a need to explore other processes of building confidence and generating closeness within the community. Local governments on their part should develop systems, privatisation for example, to nurture and/or sustain the positive developments started in some of these communities.

There have also been disappointing results and set-backs in the application of the integrated strategy. These include over-capitalization of infrastructures, the introduction of inappropriate technologies, untimely delivery of inputs etc., resulting in community rejection or underutilization of infrastructures, conflicts within the communities, or a halt in activities (Buberi 1991). Many reasons, some of which have been alluded to in the foregoing pages, have contributed to these setbacks. Others include : inadequate sensitization of the beneficiary population; underutilisation of technical assistance e.g. NGO's; allowing participating activities without purposely encouraging the emergence of strong catalysts or core leaders among fisherfolk; limited capacity of government services.

In view of the relatively short time that the strategy has actually been tested in field projects in localities disposing the ingredients appropriate for the approach, and in view of the fact that in small-scale fisheries, development is exceedingly complicated, intertwined and difficult to unravel, it is difficult to speak in concrete terms of the sustainability of the initiatives and actions undertaken. However, in many projects the development was driven by fisherfolk perspectives which integrate fishery activities within a more complex network of income producing activities rather than from the perspectives of macro economics and technologies. Furthermore, local population and local institutions were actively involved in the planning, coordination and implementation of programmes in their communities. Hence, the most basic requirements for specific activities to be sustainable are in place but these ingredients are rather weak and need to be strengthened.

#### **4. Socio-economic implications and impact of the integrated strategy**

Generally, the implementation of the integrated strategy has contributed to breaking the isolation of fishing communities. As a result of road development and the availability of public transportation, communication within the community and with the outside has vastly improved. Although access to some remote areas remains difficult and travel during the rainy season is still a problem, there is much more mobility than in the past.

The strategy has also contributed in improving living conditions in a number of localities (Kaback, Yeji, the Gambia, Tombo, Shenge etc.); aroused the awareness and enkindled the consciousness of the population while empowering them to strive for their own self reliant development. A number of communities have developed service infrastructures and institutions, such as schools, dispensaries, creche etc. catering for the needs of the community as a whole. This development brought about mainly as a result of the villagers initiatives reveal the extent to which fishing communities accept the strategy. It is also an indication that the latent ability of the people to work together is awakened and that individualism that has persisted for decades is gradually changing into cooperation for the betterment of the fisherfolk and the community as a whole.

The strategy has contributed in improving employment opportunities in the artisanal fishery sub-sector; for example, IDRO consult (1992) states that the total employment of Gambians in national artisanal fisheries as of June 1991 was over 4000, at least three times higher than in 1979. The same phenomenon exist in Tombo, Shenge and Yeji (IDRO Consult 1992, Wagner 1993, Islam and Koroma 1993). Even more important has been the effects on gender. Women involved in fishery activities have developed very significantly in their capabilities as individuals, their perceptions of the future of the communities and their abilities to work as a team, as demonstrated through a more active, coordinated and determined involvement in fish processing and marketing. Literacy and numeracy training and the pooling of their savings have been important in this endeavour (Houéhou 1993, Atti Mama 1993). These improvement have also helped to reduce rural exodus. The population in some fishing communities has either stabilized or increased e.g. Tombo (Wagner 1993).

Furthermore, in specific instances the adoption of the strategy has made an impact on the national economy. For example, it is estimated that Gambians active in artisanal fisheries generate a contribution to GDP of over US\$9 each, equal to over 4 % of national per capita GDP of US\$220. This is a significant improvement over the performance of the whole fisheries sector in the late 1970s/early 1980s when most of the contribution to GDP came from the industrial fisheries sub-sector. (IDRO consult 1992). This is even more significant in view of the fact that the contribution of artisanal fisheries is being made by about 1% of the working age population of the country. In the same vein, prior to the 1980s foreign exchange earnings from fisheries were generated mainly by the industrial marine subsector in the form of fresh fish exports. This recent turn in the tide is due to the basic approach of creating poles (CFC) where supply and demand can meet and on the increasingly strong emphasis that is placed on fisherfolk participation. In Ghana, the Yeji project is making a significant contribution to national economy and total fish production as the country is deprived of its long distance fishing fleet.

While improvement in access roads and the installation of radio communication have contributed to reducing the isolation of the fishing villages, other community activities have helped improve the living and socio-economic conditions of the fisherfolk creating at the same time other spin offs within the community as evidenced by a number of development indicators: better housing; formation of local business and entrepreneurial groups in fishing input supplies; increased vehicle or engine powered transportation as opposed to pedestrian traffic; insurgence of stores for fuel and other essential supplies, bars, restaurants, and food sheds providing places for villagers to meet and socialize; hardware stores, boisterous motor parks in or near some fishing communities etc. These socio-economic spin offs, also contribute to the social dimension of the Structural Adjustment Programmes being implemented in a number of countries.

Another positive spin off with long term implications on sustainability of initiatives is the fact that in several sites e.g. Benin, the Gambia, Kaback, Tombo etc. the demonstrated benefits of tested or tried initiatives have enhanced the confidence of community organisational structures for participation (VDC, FCMC etc.) to identify and prepare micro-projects and canvass for external funding while strengthening their links with NGOs (FAO 1991, IMM 1992, Wagner 1993, Atti-Mama 1993).

## 5. Main lessons learned

As a still relatively new concept, every fisherfolk community has lessons to teach about integrated strategy as a tool and a resource for rural development. The following are some of the salient lessons learned from applications in west Africa.

1. **Building peoples organization is a slow process.** Patience and care must be exercised in using organizations in the community if they are to become viable mechanisms for the institutionalization of change. Training to make people more conscious of their responsibilities and that of the community are indispensable.
2. **Time is needed in institutionalizing the strategy in local communities** because of the complexities that staff face in implementing in a participatory way rural development projects. Good monitoring systems do help to evolve proper changes in strategies at the level of the community, but priority should also be given to the generation of information to be used in the planning of micro activities.
3. **Processes to enable greater participation of fisherfolk in project formulation are needed** particularly in remote fishing communities where the information base is limited and communication is poor. In particular, the use of PRA techniques have shown that working with and not for the people is a more effective way of enhancing their enthusiasm, curiosity and learning. The feeling of contribution boosts the peoples morale and sense of capabilities.
4. **For the approach to work well, FDUs need the support of technical departments existing in the locality.** However, as these departments tend to work against each other and at times in contradiction to the strategy advocated, technical demonstrations by the FDUs to enrich human capital and the creation of a coordinating agency to pool resources together is necessary.
5. **It is not enough to create only special programmes for women. Women should be given the opportunity to play a major role in the local organizational structures.** Women play a key role in the integrated strategy as applied to artisanal fisheries. Specific areas of influence are in the lending of money to operators, in the production process, in the organization of user groups, in community endeavours such as health and family maintenance.
6. **Mobilisation of local resources is facilitated if micro-projects are aimed at the real needs of the people.** Consequently, an integrated development project needs sufficient staff with high motivation, strong leadership qualities, broad and sound expertise and strong coordinative ability as well as high credibility, in order to motivate fisherfolk to collaborate in the identification of their needs and in the implementation of the development schemes being introduced.



7. **There is an urgent need to design appropriate policies and procedures for credit and savings facilities on a national, sub-regional and regional level**, because the lack of credit facilities, though generally expensive, seriously hampers fishing and its ancillary activities.
8. **Every development project should be more or less diagonally integrated and the gradient should change over time in response to changing conditions.** Hence, one should constantly consider the trade-offs between the two policy priorities such that the two prongs of the approach continuously provide mutual support if not stimulate each other.
9. **Fisherfolk have demonstrated better understanding of their environment and in particular the resource base. Devolution of major resource management and allocation decisions to the local level is more effective** than management efforts which distant understaffed and underfinanced government agencies can provide, particularly in the context of dwindling economies and Structural Adjustment Programmes being implemented in a number of countries.
10. **There is also the need to explore the mechanisms and elements that favour the sustainability of initiatives and to promote them in fishing communities**, while at the same time reconcile human needs and the capacity of the environment to cope with the consequences of socio-economic changes in fishing communities.

## 6. Conclusion

In spite of its imperfections, the integrated strategy remains relevant to the development of small scale fisheries in West Africa. This is evident by the number of user groups that have adhered to the approach, the achievements and changing landscape of communities where the strategy has been tried. An official of the Kaback Village Development Council aptly summarized this relevance and acceptance of the strategy when he said "We understood very early that if the project is here to wash our back, we must wash our belly ourselves". The twelfth session of CECAF held at Accra (Ghana) in May 1992 and the sixth IDAF Liaison Officers Meeting that took place in Banjul (The Gambia) in February 1993 reiterated the relevance of the integrated strategy and asked the IDAF Programme to intensify its interventions in the region paying particular attention to those approaches likely to favour the sustainability of actions undertaken.

However, the present economic situation in the region with its effect on fisheries extension staff, coupled with a reduction in investments in projects owing to limitation of external financing might adversely affect the valorisation of the strategy to many countries in the region.

Furthermore, we are at a critical stage in the implementation of the strategy after several years of experimentation: Fisherfolk have a more confident perspective of their

situation and the limits of external assistance; governments are adopting more realistic attitudes to development more in tune with the needs of fisherfolk; while, approaches for integrated development of small scale fisheries are better understood. Any relaxation of efforts at this stage would severely limit the viability of existing projects, curtail their effectiveness, compromise the sustainability of the various initiatives and a major opportunity to build on current success would be lost.

## **7. Epilogue - Looking Ahead**

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 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, we have worked under the context of abundant or seemingly adequate fishery resource with little population pressure. The scenario is however changing 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 strategy in artisanal fisheries development, but with a new slant: emphasis on the elements and mechanisms that favour the sustainability of initiatives, responsible fishing as well as the devolution of major resource management and allocation decisions to the local community.