

# 1. The sustainable livelihoods approach: new directions in West and Central African small-scale fisheries

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## INTRODUCTION

After decades of only limited success in alleviating poverty, by the 1990s development workers and cooperation agencies started to rethink their strategies for working with rural communities. Building on research and experience, a new approach emerged, putting people in clearer focus and emphasising the need to work closely with rural communities to support them in building on their existing strengths to improve their lives in a sustainable manner. The many different dimensions of poverty were recognised as well as the impact of external shocks and trends, and the importance of the political and institutional environment and processes. The concept of livelihoods, at individual, household and community level could be seen not just in terms of economic output and earnings, but in a broader sense of human capability, self-realisation and empowerment. These shifts in perception led to recognition that, to achieve poverty alleviation, a participative, flexible and holistic approach for building sustainable livelihoods was needed. While many development organizations moved in a similar direction, the Department for International Development of the United Kingdom of Great Britain and Northern Ireland (DFID), in collaboration with the Institute of Development Studies (IDS), was at the forefront of setting out and promoting the conceptual framework and analytical tools of the Sustainable Livelihoods Approach (SLA) (Scoones, 1998; DFID, 2001).<sup>1</sup>

The SLA had subsequently become prominent in development programmes aiming at reducing poverty in rural communities and different forms of the approach have been widely used across sectors, including in coastal and inland communities engaged in fisheries and related activities. In the sustainable fisheries livelihoods Programme in West and Central Africa (SFLP), the SLA was combined with the principles and guidelines of the FAO Code of Conduct for Responsible Fisheries (hereafter referred to as ‘the Code’) and turned into a comprehensive regional programme with the aim of promoting responsible fishing and contributing to poverty alleviation by improving the livelihoods of fisheries dependent coastal and inland communities. The SFLP used a process approach engaging the SLA within the broader policy setting of the Code to improve fisheries livelihoods in local communities and to influence and inform

<sup>1</sup> Most definitions of the concept ‘sustainable livelihoods’ derive from the work of Chambers and Conway (1992). DFID adopted the following meaning: “A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.” (DFID, 1999)

national and regional policies and institutions promoting sustainable livelihoods and responsible resource utilization.

In spite of the growing global recognition and use of the SLA, the experience of applying it in small-scale fishing communities has generally not been well documented (ECFC, 2005; Béné, Macfadayen and Allison, 2007). This chapter reports on how the SLA was applied by the SFLP in combination with the Code. It provides an overview of the rationale behind the Programme, and its achievements and lessons learned in the wider context of poverty alleviation and fisheries governance. It aims to assess conceptually and practically, the nature and scale of the overall impact of the SFLP in the region, interacting with the small-scale fishing sector and responding to changing circumstances for development. The main issues and lessons learned, which are explored in more detail in subsequent chapters, are summarized.

## **THE SLA PRINCIPLES AND FRAMEWORK**

### **The SLA context**

The SLA is a broad, multidisciplinary approach that aims to promote a better understanding of and response to the multiple dimensions of poverty. When taking shape in the 1990s, the underlying ideas of the approach were not new, but built from and combined ongoing development trends with concepts borrowed mainly from the fields of economics and ecology. These included Amartya Sen's capitals and capability framework and concepts from New Institutional Economics with regard to the importance of institutions in economic growth and development (Allison and Horemans, 2006b; World Bank, 2007). The SLA also incorporated the ecological system concepts of sensitivity and resilience, referring to the degree to which a livelihood system reacts to shocks or other types of stress (its sensitivity) and how well it can "bounce back" and recover from such shocks (its resilience). The SLA vulnerability context relates to these concepts, and sensitivity and resilience are thus incorporated as factors related to poverty (Allison and Horemans, 2006a).

Following the development and active promotion of the SLA, DFID commissioned a study in 2002 to look into its use among fifteen development agencies, including bilateral and multilateral organizations as well as NGOs. Applied across a range of sectors, it was found that uptake of the approach was impressive and confirmed the view that the SLA was by then generally considered to be 'best practice'. The study also found that different development agencies interpreted and used the approach in different ways. This was considered to reflect the creative and evolutionary characteristics of the SLA and the fact that it was not designed to be prescriptive but to provide tools for holistic analysis and response (Hussein, 2002).

This section briefly describes the guiding principles and analytical framework of the SLA as used by the SFLP. This interpretation was mainly based on DFID's SLA guidelines.

### **The SLA guiding principles**

In context specific situations, the SLA principles provide a guide for practitioners to design and implement people centred initiatives to help address sustainable livelihood concerns. The core SLA guiding principles can be summarized as follows (based on Allison and Horemans, 2006b):

- the SLA puts people's social and economic activities at the centre of the analysis, acknowledging that attempts to reduce fishing pressure or allocate rights of access to the poor require people to be understood in wider terms than just their 'fishing effort';
- application of the SLA helps in assessing options for management and development intervention that transcend sectoral boundaries such as fisheries, agriculture,

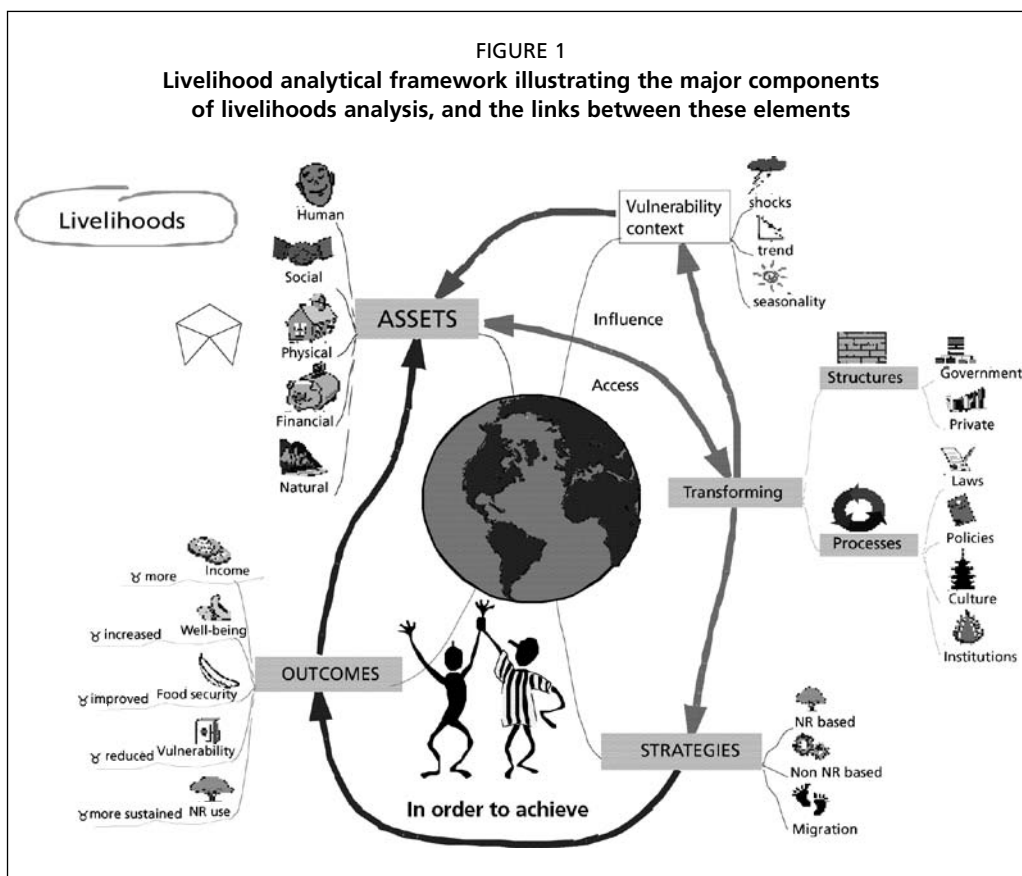
pastoralism, wage labour or small enterprise, and that incorporate issues affecting all people, irrespective of occupation, such as access to social services (e.g. health, education, and social security), political representation and judicial services. Within this also, issues of a specific sector such as fisheries can be more clearly framed, ensuring that external influences can be identified and their processes and impacts understood;

- the SLA makes micro-macro links. It encourages explicit consideration of links between local issues (such as resource allocation among different types of resources-users in a fishing port or a landing), meso-level processes such as decentralisation of government (e.g. bringing planning and financial management of fishing ports/landing sites under the control of local authorities) and wider concerns including national policy and economic and social change (such as the adoption of new fisheries policy or legislation, the liberalisation of markets and the withdrawal of production-related subsidies);
- the approach is responsive and participatory in addressing management priorities. It involves working in partnership with fishers and other stakeholders in the public and private sectors, and promotes a dynamic, adaptive and learning process to management;
- it builds on strengths. Although development aims to reduce incidences of low incomes, poor health, lack of education, food insecurity, social exclusion, or vulnerability, the livelihood approach encourages ways of tackling these problems that make the most of peoples' existing capacities, and so potentially result in better and more effective development impact. In fishing communities, these strengths may include extensive local or indigenous technical knowledge, strong vocational skills, local task and resource sharing processes, learning processes, and diverse and flexible livelihood strategies;
- the livelihoods approach takes a broad view of sustainability. Economic, institutional, social and environmental dimensions all contribute to sustainability in fisheries management. The SLA makes these dimensions explicit and recognises the dynamics of people's lives. Sustainability is viewed not in static, equilibrium terms but as the capacity of elements of a livelihood system to withstand shocks and adapt to change.

None of these principles is new or unique to the livelihoods approach. But, taken together, they represent a new way of working in development that has the potential to yield much more positive results than those which focus less on people, their livelihood systems, and the ways they interact with resources and with social, economic and policy forces around them.

### **The livelihoods framework**

As part of the SLA, the livelihoods framework can be presented diagrammatically (see Figure 1). This can help to clarify the relationship between assets and activities at individual, household and community level and the interacting social, economic and policy conditions that affect them, while guiding the consideration of short and longer term dynamic issues which affect livelihoods. In turn, the framework can help to locate entry points for development interventions of various kinds, aimed at building capital assets, reducing vulnerability, enabling resource access and so on. The framework has a diversity of uses in development programmes – though in many cases primarily regarded as a diagnostic tool – to improve the understanding of livelihoods, particularly those of the poor. In development practice, it is often used as a 'process' tool to enable participants in development programmes who come from different sectors (e.g. local government, business development, health, transport, natural resources) to work together with communities to identify key constraints and opportunities for



development intervention. In association with this, the SLA is also widely used as a project and programme design framework.

The framework is particularly valuable in providing an inventory of important issues and shows how these link to each other. It draws attention to core influences and processes as well as emphasizes the multiple interactions between the various factors that affect livelihoods. It contains five main elements:

- the capital assets owned, controlled, claimed by the household/community/group are defined in five categories. These comprise human capital (skills, knowledge, ability to work, produce and reproduce, good health...) social capital (networks and relationships which exist in society that are made use of by people in pursuit of their livelihoods), physical capital (infrastructure, material, tools and equipments used to support livelihoods), financial capital (financial resources used to achieve people's livelihoods strategies such as cash, savings, access to savings and credit including the ability to quickly and easily convert other assets into cash), and natural capital (natural resources which benefit the community/group, including fisheries resources, biodiversity, land, forests, waters, etc.). These capitals can be defined both in quantity (type and scale) and quality, with respect to issues such as suitability and access for livelihoods aims;
- the policies, institutions and processes (PIP)<sup>2</sup> which can enable or hinder access to both assets and activities. This comprises the institutions and organizations together with their policies, legislations and regulations that affect and influence

<sup>2</sup> The terms Policies, Institutions and Processes (PIP) and Transforming Structures and Processes (TSPs), are both used in the SLA framework (see Figure 1). TSPs are considered to be inclusive of policies and institutions. Hence the PIP can be seen to specify elements of the structures and processes to be transformed.

- livelihoods, and also provide the commercial contexts in which economic outputs are realised. The PIPs are at the heart of fisheries management, and of the broader social, policy and legal processes in which opportunities and constraints are defined;
- the vulnerability context relates to the external environment can affect the susceptibility to poverty and consequently the potential for livelihood sustainability. It is described in terms of shocks (sudden deaths, droughts, cyclones, conflicts and wars, accidents, floods, fuel-price hikes, currency devaluations, etc.), trends (in this case including decreasing catch rates, increasing prices for fish, changes in population, diseases, environmental and technical tendencies, factors unrelated to fisheries that nevertheless impact on fishing communities such as rising costs of food staples or medicines) and seasonality. All of these describe circumstances in which people exist and over which they have limited or no control, and which require coping and adaptation. To be effective, policies and interventions to assist people's coping and adaptive strategies need to be based on understanding how people succeed or fail in the face of shocks, trends and seasonality;
- livelihood strategies considered as the range and combination of activities and choices that people undertake or make from their capital assets to achieve their livelihood goals. They are supported or limited by the PIPs. Mobility and migration is one of the most important livelihood strategies that fishing communities use (including fishermen and women fish processors and/or traders), though others such as learning new skills, developing alternative income options, getting access to better health and education resources, or protecting against the loss of assets can be equally or more important;
- livelihood outcomes include all of what people actually achieve from their livelihoods and/or aspire to achieve in the future (livelihood goals). These livelihood outcomes can also be defined as the expectations of one or more particular development initiatives, commonly involving transforming structures and processes (TSP) to deliver them.

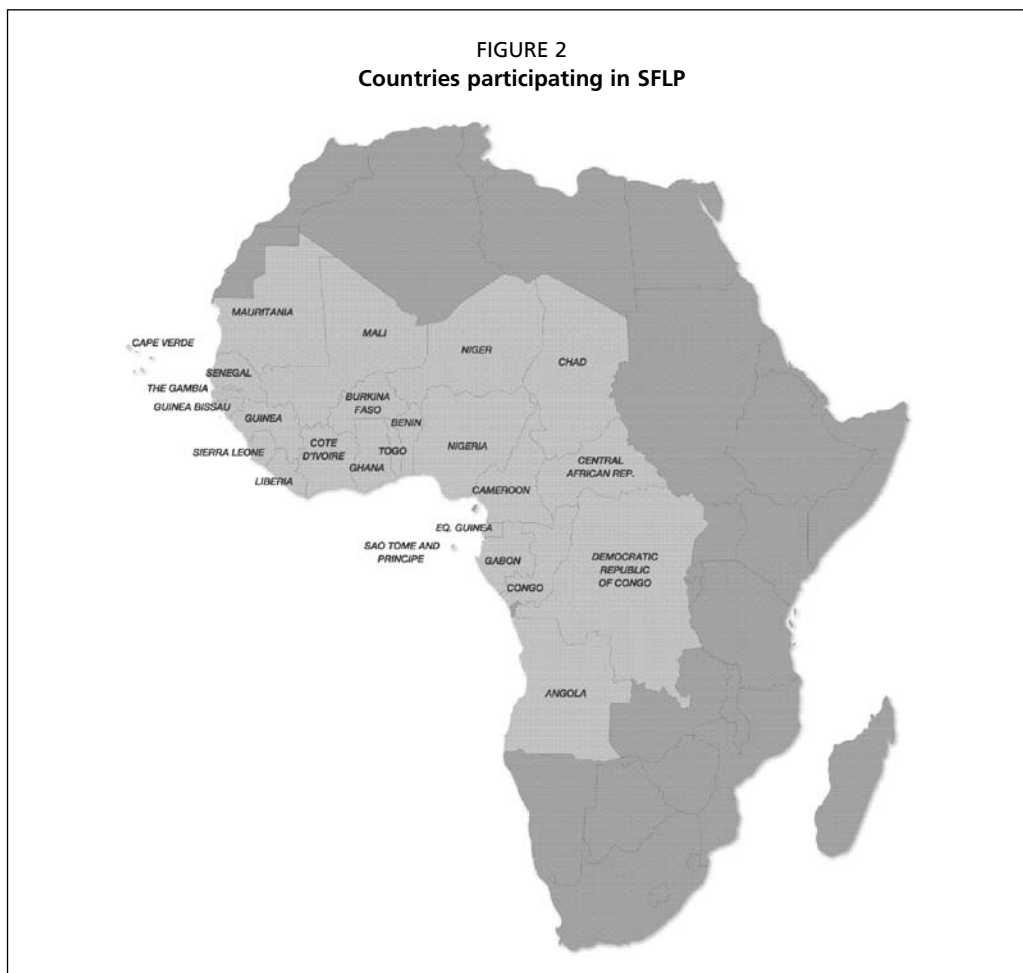
The framework does not and indeed cannot prescribe off the shelf solutions, preconceived "entry points" or instant remedies for how to resolve the causes of poverty. Its application in the fisheries sector is instead intended to help achieve a better understanding of the dimensions and processes of poverty and to address its alleviation and reduction through the same principles (Kuyateh and Monan, 2001). Neither, however is it intended to generate an over-complex approach which would be too difficult to implement, but instead require those involved in the development process, at whatever level, to be reminded of the importance of interactions in and outside communities, and to focus in on those which are most critical, and where attention would result in the most valuable outcomes.

## **BACKGROUND AND RATIONALE OF SFLP**

### **Combining the Code and SLA for synergistic effects**

The SFLP was a partnership among 25 participating countries in Western and Central Africa,<sup>3</sup> FAO and DFID (see map in Figure 2). The Programme started in November 1999 with funding for seven years. Its overall goal was "to reduce poverty among coastal and inland communities in West Africa through the sustainable use of aquatic resources" and its purpose was "livelihoods of artisanal fisheries communities improved" by the "development of social and human capital in fisheries-dependent

<sup>3</sup> Angola, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone and Togo.



communities, by enhancing the natural assets of those communities, and by supporting the development of appropriate policy and institutional environments”.

To achieve this objective, the SFLP connected together the Code as a policy guidance instrument for good practice in fish resource use and the SLA as a means of linking small-scale fisheries communities into a mechanism for influencing policy issues, institutional frameworks and processes, and for strengthening assets, reducing vulnerability and thereby reducing potential risks of resource overexploitation. The Code aims to translate the political will of governments and other stakeholders to engage fully in more responsible fisheries exploitation and management, with due regard also for social equity, particularly relevant for the livelihoods of the most vulnerable groups in fishing. To do so it provides a reference policy framework with the principles and criteria applicable for the preservation, management and development of fisheries (FAO, 1995) (see Box 1). For countries to implement the Code, political engagement has to occur in concrete terms, applying objectives and principles at macro, meso and micro levels with measures for long-term conservation and sustainable use of fishery resources through an appropriate policy, a legal and institutional framework.

In West and Central Africa, PIPs are recognized as being critical factors influencing the livelihoods of small-scale fisheries communities. Inadequate or poorly targeted institutional capacity and fragile macro-micro links are considered to be significant constraints in providing support for the communities to improve or maintain fisheries livelihoods (Anon., 2001). Most of the countries in the region have been engaged in poverty-reduction, decentralization and civil service reform processes during the last decade. While these have led to attempts to redefine the roles of central and local governments, to encourage the participation of the primary resource-users in the

## BOX 1

**Key Elements of the Code**

The Code of Conduct for Responsible Fisheries was adopted by FAO members in October 1995 against a background of widespread international concern over the serious problem confronting fisheries and aquaculture around the world.

One of the objectives of the Code is to establish core-guiding principles that take into account the biological, technological, economic, social, environmental and commercial aspects of responsible fisheries. The Code also serves as a reference and provides guidance to States to improve their legal and institutional frameworks and enter into international agreements. It facilitates co-operation in the conservation, management and development of fishery resources. It promotes the contribution of fisheries to food security, especially at the local level. It promotes the protection of living aquatic resources and their environment, trade, research, and provides standards of conduct for all persons involved in the fisheries sector.

The key elements of the general principles of the Code are to conserve aquatic resources, to secure the availability of resources, to balance fishing effort with the sustainable use of resources, to take account of traditional knowledge, to promote the precautionary principle and co-operate bilaterally and regionally in the research and management of fisheries. The Code aims at promoting the awareness of responsible fisheries through education and training; to involve fishers and fish farmers in policy formulation and implementation; protecting the rights of fishers and fish workers, particularly those engaged in subsistence, small-scale and artisanal fisheries to a secure and just livelihood, as well as preferential access to traditional fishing grounds and resources.

*Source:* FAO, 1995.

planning process and natural resources management, and to address micro-macro and cross-sectoral links, the processes may still require to be reinforced. At the commercial, private-sector level, the PIP context is variable, in some cases with growing markets and better opportunities for commercialization, while in others, with competition for resource from industrial fleets, and environmental and access concerns related to oil and gas exploration.

The linking of the SLA as a diagnostic, process and implementation tool for the Code has been a particular area of innovation by the SFLP, and it is useful to set out the connections between the two themes (see Table 1, p.8).

The combined application of the SLA and the Code had been expected to result in a number of favourable outcomes and results (FAO, 2002; Kébé, 2007). Thus the Code could be used as a sectorally defining policy tool to support and guide the implementation of the SLA in specific instances concerned with PIPs related to the sustainable use of fisheries and aquatic resources. This could be applied in practical terms by providing indirect support to avoid or mitigate negative effects of the external environment, support asset development and to strengthen and diversify livelihoods.

**Background of the SFLP**

The regional development context of SFLP, and the institutions it built from, had their genesis in an earlier broad-based programme targeted at the fisheries sector in West Africa: the Programme for Integrated Development of Artisanal Fisheries (IDAF). Funded by DANIDA and executed by FAO for fifteen years (1984-1998), IDAF promoted participatory approaches in artisanal fisheries development and management

TABLE 1  
Interactive elements between the Code and the SLA

The Code	SLA	Possible 'disconnections'
Encourages inclusion of socio-economic parameters in decision-making, the protection of the social rights of fisheries workers, and sustainability of the resources within the context of food security and livelihoods improvement in small-scale fisheries.	People are the central focus, rather than the dynamics of the resources that contribute to their livelihoods. Encourages a focus on the sustainability of the livelihood system, rather than just the resource.	The Code emphasizes the preservation and sustainability of natural resources to benefit fisheries stakeholders in general, applying the precautionary principle and managing fishing effort.
Encourages participation and consultation of the communities, then transparency in planning and management. Also encourages consideration for traditional practices and knowledge.	People in the communities are the major stake-holders of the planning process. SLA functions at and across all levels (multisectoral), within the general economic and human development framework, benefiting people whose livelihoods depends to a large extent on small-scale fisheries.	The Code is mainly a sectoral policy instrument, with participation and consultation primarily focused on fisheries and their ecosystems (though influences of external factors are not expressly excluded).
Encourages institutions and processes to improve linkages between the State, its decentralized structures and civil society in definition, implementation and monitoring of fisheries development and management. Also encourages international cooperation, especially for activities that need to be managed supranationally.	Seeks to operationalize actions at several levels (micro-macro linkages). Emphasis on "bottom-up" planning process, addressing aspirations and needs of poor/vulnerable fishing communities, without prejudice to the consequent actions and levels of response.	The Code may be more "prescriptive" with a set of standards and principles to influence Policies, Institutions and Processes (PIP) in the fisheries management process, in principle applicable in wider contexts, while at the same time encouraging: "participatory" planning procedures.
Provides and promotes normative orientation for management strategies based on responsibility-sharing between the State and users in management of the resource (the concept of "co-management").	Encourages partnerships with communities, including NGOs. Can be translated into actions, community-based and otherwise, on any livelihoods entry point (e.g. human, or physical assets, PIP, etc.).	The Code in many circumstances is used a reference document with the major intention of influencing PIP, but not specifically operationalized, as demanded in good SLA practice.
Is stated to recognize the variable and changeable nature of the natural, economic and social environment of the fisheries sector, and the need to take all these into consideration in management.	Explicitly recognizes dynamic aspects of the external environment and its impacts on livelihoods, capacity and ability to deal with resource management and other approach.	Challenges of determining the significance and response action appropriate to sector and non-sector aims.
Encourages wider bases for decision-making, beyond the biological aspects; also stresses the concept of environmental management e.g. for inland fisheries. Article 10 of the Code is especially dedicated to integration of coastal fisheries.	A holistic approach which includes and promotes wider based decision-making and integration of fisheries within broader development themes and aims.	Stronger and more explicit the Code focus on resource and environmental criteria may not be matched in wider social/community targets based on exigencies of current livelihoods.
Prepared in line with the Rio (UNCED, 1992) principles of sustainable development.	Is inclusive of and stresses the concept of sustainability.	Aspects of sustainability may have different emphasis – e.g. resource vs. social welfare.

Source: Developed from Kébé, 2007.

in the 20 coastal countries which are now the core participants of SFLP, and was instrumental in associating them in a regional fisheries network. Though largely predating both the Code and the SLA, the programme contained a number of elements and approaches which could be seen as valuable primers for the focused and more methodologically defined concepts of the Code and hence the SFLP.

At a regional workshop in Cotonou in June 1998, representatives of the 20 IDAF countries expressed their commitment to use the Code as the framework for planning and management of their fisheries sectors and officially requested external support to take up the challenge to do so. During the same year, DFID adopted a Thematic Initiative in support of Sustainable Rural Livelihoods, and a joint DFID/FAO appraisal resulted in a programme-concept focusing on 25 West and Central African countries with large numbers of fisheries-dependent communities whose populations are known to be poor.

Approval of the concept by DFID, FAO and the potential partner governments led to a Programme formulation process between January and May 1999, involving field visits to a selected



number of countries by a DFID/FAO team. A participatory planning workshop involving 90 representatives from governments, NGOs, fishers, fish traders and fish processors from the 25 countries designed the skeleton of what became SFLP, which was officially agreed between DFID and FAO in October 1999 (Anon., 1999).

- The Programme's intervention was based on three underlying premises:
- that there are significant threats and constraints to the sustainable use of aquatic resources by artisanal fisheries communities;
- that SLA and the Code could be used as a guide to improve livelihoods, and reduce poverty, by removing or mitigating these threats and constraints through responsible management; and
- that government and communities can through co-management share responsibilities for sustainable use and equitable delivery of benefits to stakeholders, promoting the most appropriate approach to addressing constraints.

### **Programme structure and processes of implementation**

The SFLP was designed to assist partner governments in using SLA to formulate policies and plans which take into account the artisanal fishing sector and the principles of the Code. It also helped poor local communities in developing their capacity to participate more directly and effectively in fisheries planning and management. Its strategy centred on stakeholder participation and capacity building for implementing the Code, both generally and specifically with regard to small-scale fisheries, using SLA. Hence the project concept note and plan emphasised building human and social capital as the means to make both resource governance and poverty reduction initiatives more effective.

The SFLP organizational framework comprised: (i) a Programme Steering Committee (PSC), with advisory functions; (ii) a Programme Coordination Unit (PCU) in FAO HQ Rome with strategic oversight, administrative and managerial responsibility; (iii) a Regional Support Unit (RSU) in Cotonou, Benin which handled operations and (iv) a National Coordination Unit (NCU) based in each of the 25 participating countries (Horemans, 2004). In each participating country, the NCU served as interface between the RSU and the administration (relevant government and local government authorities), partners and fishing communities in the concerned country. Its functions were to ensure the coordination of the many and various actions to be taken in the country and to specifically supervise and monitor the implementation of activities promoted or supported by SFLP (Konan and Holvoet, 2007). Intended to be based on a wider range of technical, community, development and commercial agents, linking fishery sector skills and interests with others, they were also encouraged to become increasingly autonomous bodies, with a greater potential for longer term interaction and development impact, beyond the lifetime of the SFLP itself.

The strength and capacity of the NCUs not unexpectedly varied across member countries, depending on staff and resources available and on the opportunities for NCUs to develop and learn from SFLP and other development activities. Nevertheless, the SFLP experienced that the NCUs were indispensable in implementing a programme across such a wide regional coverage. Moreover, by taking ownership of local activities, these national representative bodies were in a position, at the end of SFLP, to extend the momentum beyond the programme period.

The SFLP provided assistance to participating countries in the form of investment and staff support in three main areas, i.e. institutional and policy development, community projects and pilot projects. An essential feature was that they were intended as learning and strengthening processes for all those engaged in the projects, activities and interactions developed, and that there would be processes of reflection and assessment among participants at a range of levels.

Institutional Support projects were aimed at improving the PIP context and strengthening and making more sustainable the benefits potentially deliverable to

fishing communities. This included support to representative groups which integrate the poor, improve service delivery to artisanal fishing communities, participation of fisheries communities in the design and implementation of policies and processes that affect their livelihoods, and communication about SLA within the Code at all levels. The primary and most important range of Institutional Support projects were identified in the early stages of the SFLP by the participating countries on the basis of their needs and priorities. Other themes were developed through these projects from experience gained during the life of the Programme. A major intervention was the support provided to selected participating countries to inform and influence a range of national policies (for poverty reduction, micro-finance provision, HIV/AIDS prevention, treatment and care, literacy provision, etc.) to be more favourable to fishing communities (See also Chapter 4).

*Community projects* were the most numerous and diverse component of SFLP interventions. They were designed as small investment projects with the objective of strengthening the capacities of communities and the cohesion of national and regional networks. They focused on poverty reduction, building social and economic opportunities and potentially attracting more development interaction. They also offered the opportunity for countries not directly involved in subregional Pilot Projects (see below) to participate in the Programme, and among all countries, to share and compare experiences and lessons. Community Projects were to be conceived and implemented directly by the communities, together with, as appropriate, external agents such as the NCUs, NGOs and service providers.

Community Projects were also set up as action research initiatives, the main focus being on people rather than fish. They were intended to support and be part of a dynamic process of change within communities and could be multisectoral, linking fishing people and activities into a wider network of options. An important feature in all Community Projects was the different ways in which administrations were encouraged to become visible and active partners of communities. Later assessments (Holvoet, 2007) suggested that in the majority of the Community Projects, the conventional administration bodies had to put aside their assumptions and practices and start analysing situations and defining solutions together with local partners.

In the early stages of the SFLP, community sensitisation and capacity-building activities were undertaken to develop reflection, analysis and dialogue within communities in each participating country. This provided the opportunity to explain the SLA and how communities should think of their project's activities in terms of improving their livelihoods. This exercise was carried out by support teams (comprising NCUs members, extension workers or NGO members) who were familiar with the SLA and the Code principles. To facilitate their task, the SFLP had also established a capacity-building programme with training sessions in participatory development to help the NCUs in Community Project identification, formulation and implementation process

The second stage of the process of identification and formulation of Community Projects involved a participatory diagnosis of the livelihoods of fisheries communities using the Participatory Rural Appraisal (PRA) method. This field exercise of livelihood analysis and planning allowed the fishing communities themselves to identify their strengths and livelihoods assets, and the existing opportunities to improve their livelihoods. During the discussion of potential solutions to problems identified, the community considered ways to include relevant technical information on cost, feasibility, ecological impact, sustainability and reliance on local skills. The technical options provided the opportunity for community to be integrated into a single strategy in the Community Action Plan (CAP) which was prepared at the end of the exercise (Kuyateh and Monan, 2001). Typically then, one of the priority actions of this CAP

was funded by the SFLP as a Community Project, and technical support was provided to the fishing community by the NCU for partnership development to implement the other actions. This process gave the community a longer term vision (usually 2-3 years and onwards), which helped the identification of partners according to the identified priorities and facilitated the necessary decisions and mechanisms for participatory monitoring. On the basis of lessons learned through the SFLP over the first two years and to facilitate field work in later stages of the programme, a guide for the preparation of Community Projects was developed in collaboration with NCUs and NGOs. This guide highlighted the successive stages to take into account during the process of identification, formulation and implementation of a community project (see SFLP, 2002). It was also intended to promote the SLA and the Code as vital instruments for poverty reduction in fisheries communities.

The common implementation arrangement used in Community Projects, linking macro and meso level administration agents with NGOs, stakeholders and the communities in one process was a challenge and an important change in the way of working, both for FAO and for government departments. This approach was not always considered to be necessary or relevant at the start of projects, but in most countries these reservations were overcome and NCU, NGOs and fishing communities started to establish new relationships, with varying levels of interaction. As a result, where this started to work, power sharing and learning from each other became more widely applied than before.

Collaboration with partners and NGOs well acquainted with participatory methods and processes proved to be very important during the execution of the Community Projects (as well as of the Pilot Projects, see below) as these aimed to work with people in the poorer layers of society, and develop action research and learning processes to build and disseminate solutions. The NCUs, as stakeholders themselves, were to learn from the lessons and experiences in the Community and Pilot projects in order to replicate these in other communities. Institutional support projects also made it possible to assist these processes of replication and dissemination, and influencing of policies (Holvoet, 2007).

The purpose of the *Pilot Projects* was to explore major themes at a larger scale and interactive level, involving a range of complementary and/or comparative countries and social/environmental contexts within the wider SFLP grouping. These went beyond the delivery of specific benefits to individual communities by aiming to involve all key decision makers and administrators, establishing national institutions and processes to sustain and replicate the benefits derived from the various SFLP activities. Like the Community Projects, these were conceived as action research and learning processes, effectively forming the operational framework (institutions and processes) within which Community Projects and related initiatives could interact to build up stable, long-term, fisheries community livelihoods (Blake and Coutts, 2001).

Pilot Projects were large investment initiatives – though, in principle, not infrastructure development activities – selected and developed to address significant common issues or constraints which clearly related to livelihood security in poor fisheries communities. The issues and approaches for the Pilot Projects and the chosen countries were identified and selected through a participatory process by the stakeholders in the 25 countries, itself conceived as an extensive learning and capacity building exercise for the NCUs and other agencies involved. Three Pilot Projects operated in twelve countries (four per project) during the latter part of the SFLP, and focussed on broad themes within the fisheries sector: (i) inland fisheries co-management, (ii) coastal fisheries participatory management, and (iii) post-harvest livelihoods. Countries were selected on the basis of relevance and importance of the themes, comparative learning value, capacity and multiplier potential, and their willingness to address the issues involved.

### Aims and expectations

The SFLP was expected to have an impact both at the local level and in a wider policy context. In accordance with the Programme's objectives, communities, resource users and local governments in participating countries would improve their capacity to participate in the management of the resources they depended on for their livelihoods. Awareness and knowledge with regard to the need to use resources judiciously and to pay attention to the state of the environment would be enhanced. Livelihoods of poor households dependent on fishery and aquatic resources would be secured and improved. Moreover, based on its field experience, the Programme would have generated lessons learned and best practices that could be disseminated at a global level and fed into both fisheries and development policy work (Anon., 1999). On the basis of the revised logical framework approved by the Programme Steering Committee (Blake, 2001), the SFLP was expected specifically to:

- support the national governments to improve their fisheries plans and policies through adoption of relevant Code principles, and their poverty alleviation planning by taking account of fisheries community needs;
- help the communities and their partners to improve their capacity to participate in planning and management for fisheries livelihoods;
- establish functioning co-management systems for government and communities;
- support enhanced and/or protected ecosystems and resources;
- improve the efficiency of the whole system of artisanal fisheries by enhancing the economic and social benefits;
- disseminate experience and knowledge gained through the implementation of the various activities.

By any standards such a list of expectations would be ambitious, in particular considering that the SFLP was pioneering an approach in a large-scale programme and developing methodologies at the same time. Strictly speaking, there were few definitions of the scale, quality or extent these elements were to be achieved, but a definable change in each was intended. To bring this about, in conjunction with the project structure outlined earlier, the SFLP carried out an equally ambitious work programme. By the end of the programme, as externally evaluated, its main activities and outputs could be summarized as (Cunningham and Holleran, 2007):

- institution building of 25 National Coordination Units (NCUs);
- production of Field Studies (poverty profiles, economic contribution of fisheries, etc);
- 83 Community Projects in 23 countries;
- three Pilot Projects operating in 12 countries (four countries in each pilot project);
- Programme Coordination Unit (PCU) outputs: policy briefs, a book, articles, guidelines
- Regional Support Unit (RSU) communication outputs: e.g. newsletters, (Liaison Bulletin and Info-Flash), community theatre, radio programmes, videos, pilot project communication strategies, a library, a web site.

The question of the interaction and impact of the output components in meeting the original aims and expectations has been reviewed in specific detail in mid-term and final evaluations (Muir *et al.*, 2000; Cunningham and Holleran, 2007) Prior to the final evaluation, and in an attempt to better document the outcomes and lessons learned for wider dissemination, the SFLP interventions were grouped into four major themes. These were identified as being capable of providing clear messages that could help strengthen the FAO normative functions and enhance FAO's capacity for contributing to international development goals. These four themes were:

1. participation of communities in fisheries enhancement, inland fisheries co-management, coastal fisheries participatory management and protection of ecosystems;

2. integration of fisheries communities in local development, including capacity building (on co-management, infrastructures management, participation in local development and conflicts management);
3. market access and improvements in marketing (post-harvest technology and market issues); and
4. integration of the fisheries sector in national development policies.

A fifth crosscutting theme was then added to collect lessons concerning transversal issues of gender, HIV/AIDS and communications.

This arrangement of themes was valuable in pulling together the very diverse results of the SFLP's work, and provided useful reflection for participants at a range of levels, in contributing background to final stage materials and discussions, and then in informing much of the thought and content of the more specifically targeted themes in this paper. Some of the main experiences emerging from and related to these themes and issues are summarized in the following section.

## **EXPERIENCES AND OUTCOMES**

### **Putting emerging concepts into practice in SFLP**

An important experience of SFLP was the affirmation of the value of applying new working methods to address the issues relating to the promotion of responsible fisheries and poverty reduction in fishing communities. While many of the approaches and methodologies used by the Programme were not new to the theory or practice of development as such, the SFLP's holistic approach pioneered their combination within the SLA framework in the fisheries sector. This linked in turn with the practical testing and implementation of the broad policy instrument afforded by the Code. The SFLP also generated significant practical experience in implementing a wide range of approaches within this. Some of the main conclusions for these are summarized below:

- focus on reducing vulnerability through cross-sectoral approaches: With respect to development strategy, the SFLP proposed that key ways to reduce poverty among fishing-dependent people were to decrease their vulnerability and marginalization. Constraints to achieving poverty eradication in fishing communities were to be found both within the sector and outside it. Within the sector, particular issues were the inadequate institutional arrangements for the management of coastal and inland fish resources and for the protection and conservation of critical fish habitats. Externally, notable issues included inadequate access to, or utilization of, social infrastructure such as schools and health services. The situation had been commonly worsened because fishing people would often have limited alternative livelihood options, making them vulnerable to changes in the condition of, and access to, the aquatic resources on which they depend. Programme activities were specifically aimed to address such constraints;
- addressing exclusion and marginalisation: The SFLP experiences also showed the need to determine mechanisms of exclusion within communities, in order to understand particular aspects of vulnerability and the more specific ways to address them. This was done through diagnostic tools such as poverty profiles, the sustainable livelihoods approach, and gender analysis, the use of which was also valuable in local awareness raising and capacity building. Many of the elements of success of SFLP interventions involving marginalised groups had then been due to the use of concepts central to the SLA, looking at ways to build on strengths, improve resilience, and mechanisms for identifying and supporting opportunities;
- capacity building and organizational development: the SFLP recognised at an early stage the need to strengthen and empower fishing communities and their organizations, to allow them to effectively engage in local development and

co-management for responsible fisheries. The range of activities carried out in this respect had been broad and included, among other things, basic literacy training and the development and support to community-based organizations (CBOs). Capacity building was also important at the meso levels and the involvement of Fisheries Administrative Officers in implementing activities of the Programme through the NCUs helped them to acquire new skills, especially in the participatory appraisal of livelihoods (PRA/SLA, the Code project formulation and management). Some carried out studies that also provided wider opportunities for learning. All these skills that are now available in the various Fisheries Departments and other agencies are valuable capital assets;

- partnership development: the holistic approach adopted opened up new prospects for the development of cross-sector partnerships to the benefit of the fisheries sector and fishing communities. Partnerships have been sought and established with a much wider range of organizations than previously linked with fisheries departments and ministries in West and Central Africa (SFLP 2005). This has enabled a wider scope of interventions, for example linking with the Ministry of Health and NGOs to address HIV/AIDS or linking with micro-finance institutions and banks to offer more effective credit designed specifically for the fisheries sector, particularly with an equitable access for marginalised groups;
- micro-macro linkages: People and groups were involved at the micro (household and community), meso (local agencies, NGOs) and macro (national sectoral and non-sectoral agencies) levels, and opportunities created for better interaction, and for the defining shared purposes and ways of addressing them. An important element of the SFLP approach was the building of micro-macro linkages in order to bring about change. This has involved integrating fisheries into national policies and strategies, adopting and applying legislation and involving communities in plans and implementation. The meso-level, linking local agencies between local issues and needs, and national aims and policies, is critical in this process. The strength of this approach is also in setting up and supporting feedback loops that allow experience at grass-roots level to influence policy direction. A particular illustration is that of integrating the fisheries sector within national poverty reduction policies and strategies, but in addition to this the SFLP has been working within a number of countries to integrate the fisheries sector within national HIV/AIDS strategies, micro-finance programmes, gender strategies and literacy training, ensuring that fishing communities receive the policy attention and practical support they need to reduce the vulnerability and marginalization;
- participatory planning: As an exploratory and integrating tool for many of these interventions and processes, the participatory planning exercises carried out within the SFLP was a particularly valuable component of the learning process it promoted in West and Central Africa.

### **Achievements and lessons learned**

The measurement of impact over a wide and complex programme engaging in a wide variety of initiatives and varying scalar and organizational levels is a formidable if not an impossible challenge. This is always more challenging within the wider contexts of change, when the countries and communities in the SFLP are subject to many other forces and influences, and in the relatively short time since the programme in its original form was completed. The immediate outputs and outcomes are summarized below and discussed in fuller detail in the next sections of this technical paper, The more intangible, but in many ways more essential consequences were those which emerge during and beyond the programme in the form of ideas and policy influence, institutional change, differences in attitude, behaviour, ways of doing things, differences in opportunity, choice and confidence, and reductions in vulnerability, poverty, and resource stress.

The real measure of these will come about among communities and national organizations in coming years, in the processes and directions of new rounds of development investment, building effectively on the platform of the SFLP, in the resources of the region and in the resourcefulness of its people. At this stage at least, a number of lessons can be learned which combined with Field Studies, Policy Briefs, and with a wide range of experience gained among communities, sector agents and development practitioners, represents a substantial experiential base for future benefit to continued efforts towards development and responsible fisheries by communities and their development partners.

One of the primary lessons concerns the possibility of reconciling responsible fisheries with poverty reduction. In many views these have been considered to be opposing objectives. Thus many approaches to fisheries management seek to control access or reduce effort, potentially marginalising or excluding the poor from access to resources. Conversely an aim to increase incomes of fishing communities through increased exploitation of resources can threaten sustainability. The SFLP approach has attempted to challenge this assumption, essentially by proposing that poverty can be addressed – indeed needs to be, through a wider perspective than that of resource exploitation alone. Addressing poverty is not necessarily about increasing incomes through increasing fish catches, but about understanding and dealing with vulnerability, and exploring wider livelihood options, in and outside the sector. It is also about improving access to services to reduce vulnerability and ensuring the inclusion of stakeholders and marginalised groups in institutional processes. Applying this perspective, experience within 25 West and Central African countries has shown that not only it is possible to address the two objectives of poverty reduction and responsible fisheries together, but it is necessary to tackle them both for the long term sustainability of fisheries livelihoods (SFLP, 2005). Some of the more specific elements of this, and other lessons learned in the SFLP experience, as detailed further in respective chapters of this paper, are outlined below.

#### *Analysing and addressing the multiple dimensions of poverty*

At the core of SLA is the recognition that poverty is multidimensional and complex, requiring diversified and dynamic actions. SFLP raised the awareness of the usefulness of SLA and of the relevance of the Code not just in resource management but for addressing issues of poverty and equity associated with the sector. The various methodologies developed and used by SFLP for the participatory diagnoses of fishing community livelihoods and for poverty profiling were shown to be powerful tools for understanding the processes and characteristics of poverty, and for communicating this wider perspective to local and national agencies. From this understanding of poverty, there have now also arisen various projects aimed at supporting community approaches to change and opportunity, and on using these interventions to inform and influence higher-level policy. (See Chapter 2).

#### *Re-assessing the economic contribution of fisheries to national economies*

The methodological guide developed within the SFLP to assess the contribution of small-scale fisheries to national economies was used to conduct case studies in 15 participating countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Congo, Gabon, Guinea, Mauritania, Cameroon, Chad, Gambia, Senegal, Cape Verde and Sao Tome & Principe). In many countries, these case studies have altered the perception of the fisheries sector, by showing that its contribution to Gross Domestic Product (GDP) is notably greater than had commonly been described in national statistics. In addition to clarifying the fisheries sector's role in GDP, the studies also provided useful information concerning other economic aggregates, such as comparative added value per person employed, the size and scope of multiplier effects, the impacts in trade, and

the contribution of the sector to government resources and hard currency reserves. (See Chapter 3).

#### *Mainstreaming fisheries in national policies*

Partly as a consequence of defining the economic contribution of fisheries in the region, it was then possible to integrate the fisheries sector better into national policies and strategies. This has been a key area of success of SFLP initiatives across West and Central Africa. The fisheries sector has often been considered as very marginal, with limited significance to poverty reduction. It has therefore rarely been given priority in national development plans or in the poverty reduction strategies of West and Central African countries. Putting across the case that the fisheries sector is important in providing employment, income generation, food security and a safety net has therefore resulted in a greater coverage of the fisheries sector in national strategies. This in turn has significant impacts on sustaining key resources over the longer term, on local and national poverty reduction, and on national food supply and security. (See Chapter 4).

#### *Introducing institutional innovations in fisheries co-management*

The Programme addressed poverty by specifically targeting the resource users in artisanal fishing communities, small-scale traders, processors (mainly women), and consumers. The Programme's focus on improved management combined with social development in fishing communities as well as with its focus on helping to improve government capacity for policy formulation, planning and management have been the essential elements of its relevance to sustainable development. The consequent increase of institutional capacity has supported fisheries co-management and the empowerment of fishing communities, including vulnerable groups, in the decision-making process involved. (See Chapter 5).

#### *Taking account of fishing people's mobility and migration patterns*

One of the livelihood strategies often applied by fishing communities in West Africa is migration. Migration is undertaken for a number of reasons among which economic factors are the most important. A better understanding of the mobility and migration patterns of fishers and other fishing community members is needed to inform fisheries management policies and poverty reduction strategies. Migration constitutes an opportunity both for the host country and the country of origin. The current lack of detailed information on the characteristics of migrant fishing people makes it difficult to establish the necessary measures for the protection of their rights and to formulate policies that are supportive of migration. (See Chapter 6).

#### *Synergies between microfinance services, capacity building and livelihoods diversification*

The economic environment in poor rural communities can be characterized by two main attributes: monetary transactions are often in small amounts and there is a high level of insecurity and risk with regard to money flows. Financial services for fishing communities need to be adapted to these conditions as well as to the specificities of the fisheries sector. The SFLPs experience showed that capacity building and organizational development are key elements of interventions aiming to allow poor and vulnerable groups access to microfinance services. Microfinance can play an important role in livelihood diversification, which is an important component in promoting responsible fisheries and decreasing vulnerability. A holistic and poverty focused approach in microfinance can contribute significantly to sustainable development. (See Chapter 7).



### *Changing ways of working through innovations in communication*

Information and communication (IC) is a cross-cutting theme playing an important role at all levels and phases of project planning and implementation. While SFLP was successful in its application of IC in some areas, the complexity of the Programme and the lack of a clear communication strategy made it more difficult in others. At the field level, successful new approaches to communication were a core change in the ways of working with fishing communities and other partners. Rather than seeing communication as the linear and usually unidirectional dissemination of information from formal sources of knowledge to deprived recipients, a number of interventions placed and used communications at the heart of their activities, in a much more open and discursive way to engage with partners and bring about change. This involved using communication methods that were relevant to stakeholders and to the tasks at hand, contributing to a shared perspective on a range of issues and responses. (see Chapter 8).

### *Responding to HIV and AIDS in fishing communities*

Recent studies have shown that fishing communities in many developing countries frequently suffer from HIV prevalence rates many times higher than those of the general population. The SFLP's work in fishing communities in Benin and Congo included participatory socio-behavioural studies, identifying transactional sex patterns and risk behaviour. Working closely together with communities and, at the same time lobbying at higher political levels, brought about important support action for addressing HIV/AIDS in the two countries. The Programme also brought attention to the fact that the pandemic is not only a local issue but a regional one because of the mobility and migration of people. Major challenges remain with regard to mobilising national responses to gender issues with regard to HIV/AIDS in the fisheries sector. Increased integration of gender and HIV/AIDS concerns in the fishery strategies and development plans are needed. (See Chapter 9).

### *Gender and fisheries*

The gender mainstreaming approach adopted by the SFLP was consistent with the call for holistic approaches within livelihoods programmes: people-centred approaches that require cross-sectoral, cross-ministerial and cross-organizational cooperation. Gender concerns exist at all levels – among households, communities, meso actors and at the national policy – and analyzing gender relations and mainstreaming become more effective if bottom-up and top-down processes are implemented at the same time. The proposed way forward to achieve improved gender equality in fisheries includes increased application of gender analysis by fisheries departments. There is a need to develop sector specific gender strategies at the same time as engaging in overall mainstreaming processes and ensuring that gender equity is an integral part of the development objectives for the fisheries sector. (See Chapter 10).

### *The future*

It is that clear that the SFLP has contributed to creating an enabling environment for the small-scale fisheries sector and its people, and has had a definable impact at the policy level, e.g. inclusion of fisheries in national development plans and in poverty reduction strategies, improved legal frameworks and increased awareness of HIV/AIDS in fishing communities. The Programme has also raised the awareness of SLA and the Code, as well as the profile of small-scale fisheries in the development arena, including in FAO itself. Tangible results have also been achieved locally but the experience of the Programme also shows clearly that it takes a significant amount of time to bring a wider range of results to sustainability and to induce firm and durable political and institutional changes that allow for wider impact.

The SFLP has laid an important foundation in the West and Central African region. Further efforts are now needed to ensure that the outcome achieved will be sustained and reinforced (Cunningham and Holleran, 2007) (see Chapter 11).

## REFERENCES

- Allison, E.H. & B. Horemans. 2006a. Poverty alleviation, sustainable livelihoods and management in small-scale fisheries. In Swan, J. & D. Gréboval (eds), *Overcoming factors of unsustainability and overexploitation in fisheries: selected papers on issues and approaches*. International workshop on the Implementation of the International Fisheries Instruments and Factors of Unsustainability and Overexploitation in Fisheries Siem Reap, Cambodia, 13-16 September 2004. *FAO Fisheries Report* No. 782. Rome, FAO. pp 307-338.
- Allison, E. & Horemans, B. 2006b. Putting the principles of the sustainable livelihoods approach into fisheries development and practice. *Marine Policy*, 30(2006): 757-766.
- Anon. 1999. *Project Document. Sustainable Fisheries Livelihood Programme*. 40pp.
- Anon. 2001. *Report of the subregional workshops on the impact of Policies, Institutions and Processes (PIPs) on the livelihoods of fisheries communities in West Africa* (Dakar 18-20 April 2001; Banjul, 23-25 April 201; Libreville, 19-21 June 2001). Cotonou, Sustainable Fisheries Livelihoods Programme in West Africa, 135pp.
- Barry, B. 2001. *Report on revision of the Programme Logical Framework with comments on Pilot Projects Pilots*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document) 15pp.
- Béné C., Macfadayen G. & Allison, E.H. 2007. Enhancing the contribution of small-scale fisheries to poverty alleviation and food security. *Fisheries Technical Report* No. 481, FAO, Rome. 125pp.
- Blake, B. & Coutts R. 2001. The pilot projects process. Why and How? *Sustainable Fisheries Livelihoods Programme in West Africa. Liaison Bulletin* No. 6: 20-23. Cotonou, Benin, Sustainable Fisheries Livelihoods Programme (SFLP) (also available at [www.sflp.org](http://www.sflp.org)).
- Chambers, R. & Conway, G. 1992. Sustainable rural livelihoods: Practical concepts for the 21<sup>st</sup> century. *IDS. Discussion Paper* No 296. Brighton, IDS.
- Cunningham, S. & E. Holleran 2007. Final Evaluation of the Sustainable Fisheries Livelihoods Programme (SFLP), GCP/INT/735/UK. *Final Report, 2 March 2007*. FAO. 78pp.
- DFID. 1999. *Sustainable livelihoods guidance sheets*. 10pp. (available at [www.livelihoods.org/info/guidance\\_sheets\\_pdfs/section1.pdf](http://www.livelihoods.org/info/guidance_sheets_pdfs/section1.pdf)).
- DFID. 2001. Changing thinking: sustainable livelihoods. *Poverty Elimination: The role of Economic and Social Research*. Economic and Social Research Unit (ESCOR), Department for International Development (DFID), London. (available at [www.dfid.gov.uk/pubs/files/poverty-elimination-ssr-2-1.pdf](http://www.dfid.gov.uk/pubs/files/poverty-elimination-ssr-2-1.pdf)).
- ECFC. 2005. *Empowerment of Coastal Fishing Communities for Livelihood Security (BGD/97/017). A livelihood Analysis*. The Technical Advisory Group of ECFC. GOB/UNDP/FAO Project. October 2005. 10pp.
- FAO. 1995a. *Code of Conduct for Responsible Fisheries*. Rome, FAO. 41p.
- FAO. 2002. *Report of the Sustainable Fisheries Livelihoods Programme and FAO Advisory Committee on Fisheries Research Joint Working Party on Poverty in Small-Scale Fisheries. Promoting the Contribution of the Sustainable Livelihoods Approach and the Code of Conduct for Responsible Fisheries in Poverty Alleviation*. Rome, 10-12 April 2002. *FAO Fisheries Report* No.678. Rome, FAO. 22p.
- Holvoet, K. 2007. *Lessons learned from community and institutional support projects: internal evaluation 2000-2006*. Sustainable Fisheries Livelihoods Programme (SFLP) report 121pp (available at [www.sflp.org](http://www.sflp.org)).

- Horemans, B.** 2004. The work of the Sustainable Fisheries Livelihoods Programme (SFLP) in West Africa. In Neiland A.E. and C. Béné (eds), *Poverty and small-scale fisheries in West Africa*. FAO/Kluwer Academic Publishers. 2004. Pp 229-244.
- Hussein, K.** 2002. *Livelihoods approaches compared: A multiagency review of current practice*. DFID/ODI October 2002. 62pp. (available at [www.livelihoods.org/info/docs/LAC.pdf](http://www.livelihoods.org/info/docs/LAC.pdf)).
- Kébé, M.** 2007. Lessons learned from combining the sustainable livelihood approach and the Code of Conduct for Responsible Fisheries. *Liaison Bulletin* No. 23: 9-13. Cotonou, Benin, Sustainable Fisheries Livelihoods Programme (SFLP) (available at [www.sflp.org](http://www.sflp.org)).
- Kuyateh, M. & Monan, J.** 2001. Training Manual of the Sustainable Livelihoods Fisheries Programme in West Africa. *Sustainable Livelihoods Programme in West Africa. Working Paper*. 206 p.
- Muir, J., Manigui, S.A., Chamberlain, R. & Aiazzi, T.** 2003. *Joint Mid-Term Evaluation Mission, Sustainable Fisheries Livelihoods Programme (GCP/INT/735/UK), Final Report* September 2003. FAO, Rome.
- Scoones I.** 1998. Sustainable Rural Livelihoods: A Framework for Analysis. *IDS Working Papers* No. 72. 22pp.
- SFLP.** 2002. A guide for the preparation of community projects. *Sustainable Fisheries Livelihood Programme (SFLP) Methodological Guidelines* (available at [www.sflp.org](http://www.sflp.org)).
- SFLP.** 2005. *Synthesis of lessons learned. Sustainable Fisheries Livelihoods Programme (SFLP) Workshop Report*. Dakar, Senegal 21-25 November 2005. 25 pp. (also available at [www.sflp.org](http://www.sflp.org)).
- SFLP,** undated. *SFLP Strategy, SFLP in brief*. The Sustainable Fisheries Livelihoods Programme (SFLP) Web site (available at [www.sflp.org](http://www.sflp.org)).
- World Bank.** 2007. Market institutions and economic growth. Knowledge resources for Financial & Private Sector Development Web page. (available at [www.rru.worldbank.org/PapersLinks/Institutions-and-Growth/](http://www.rru.worldbank.org/PapersLinks/Institutions-and-Growth/) )



## 2. Analysing and addressing the multiple dimensions of poverty

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### INTRODUCTION

During the last decades, a significant evolution has taken place in the international development community with regard to the understanding of poverty and how to achieve poverty reduction. From having mainly related poverty to income and consumption, the World Development Report of 1990 promoted a move towards a multidimensional definition by suggesting a two-part strategy for poverty reduction consisting of labour-intensive economic growth combined with the provision of basic health and education services to poor people. In the 1990s, the importance of governance and institutions were recognised and the concept of social networks and the place of poor people in these networks became part of the poverty picture (World Bank, 2001; Bastiaensen, De Herdt and Vaessen, 2002). A social capital perspective emerged together with the political dimension of social exclusion as an explanatory factor for poverty. It was recognised that groups of people may be excluded from fully participating in political, social and economic life due to constraints created by their relationships with the more powerful and that policies, institutions and processes (PIP) influence people's possibilities to overcome poverty (Bastiaensen, De Herdt and Vaessen, 2002; Allison and Horemans, 2006). Moreover, the importance of vulnerability was acknowledged, being "a function of the risks to which people may be exposed, the sensitivity of their livelihood system to those risks, and their ability to adapt to, cope with, or recover from the impacts of an external 'shock' to their livelihood system" (Allison and Horemans, 2006, pp. 757-758).

Analogous to the development of the understanding of poverty, definitions and indicators aiming at describing and measuring poverty have evolved and a number of different methodologies exist. For example, at the global and national level, the UNDP Human Development Index – first introduced in 1990 – combines "indicators of life expectancy, educational attainment and income into a composite human development index" (UNDP undated, webpage) in the Human Development Reports. Since 1997, UNDP also compiles information on human poverty (the Human Poverty Index) and gender equality (Gender-related Development Index and Gender Empowerment Measure) reflecting the recognition of the complexity of human development and poverty aspects (UNDP, undated).

When adding qualitative aspects to the predominantly quantitative income-related indicators mainly used earlier, more participatory approaches to defining and understanding poverty are needed. In the World Bank's report 'Voices of the poor' (Narayan *et al.*, 2000), poverty is described by using poor people's own perceptions, summarising them into a number of interrelated dimensions of ill-being and bad quality of life such as inadequate assets, physical ill-being, unequal gender relations, discriminating social relations, insecurity and disrespect, lacking or weak institutions and organizations, and lack of education, information and confidence.

Using a human rights perspective to define poverty enhances the understanding of many of the vulnerability issues and allows looking at not only resources but also

at the capabilities, choices, security and power required to enjoy basic civil, cultural, economic, political and social rights. The United Nations Social and Economic Council (ECOSOC) proposes the following definition of poverty: “a human condition characterized by sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights” (ECOSOC, 2001, point 8).

Small-scale fishing communities have long been considered to be among the ‘poorest of the poor’. This is explained by a number of factors including, for example, the often remote location of fishing villages and hence limited access to health and educational services, limited access to financial credits because of lack of collateral, and exposure to natural disasters in coastal areas. More importantly, it has been argued that poverty in fisheries is related to the uncertain or – nowadays in many areas increasingly – low level of fishery resources. This argument relates to the common property nature of the fishery resources and their overexploitation because open access leads to more and more people fishing. However, as in the general discussion on poverty referred to above, there has recently been a growing understanding that poverty in fishing communities is a complex issue and that socio-institutional aspects are more important than pure economic or biological considerations. This would mean that although overfishing and potential depletion of fishery resources constitute a real threat to many coastal livelihoods, the “social positions and institutional arrangements controlling the access to, and the use of, these resources [...] play a more critical role in determining poverty” (Béné, 2003, page 968).

This argument has important consequences for small-scale fisheries management in a poverty context. Addressing poverty requires that marginalised groups are included in the institutional processes related to resource management and new institutional approaches are needed to ensure effective fisheries co-management. However, due to their continuing social exclusion and vulnerability, fishing people may lack the capacity and incentive to participate in resource management and these aspects of poverty need to be addressed first, or simultaneously.

The SFLP fully recognised poverty to be complex and multidimensional, requiring an in-depth and holistic analysis. The multifaceted character of the poverty context – including the interrelationships among poverty, vulnerability and marginalisation – forms the basic analytical framework used in the sustainable livelihoods approach (see Chapter 1). This chapter describes the SFLP SLA-based poverty profile methodology and how the process of developing the profiles as well as the information generated were used as the basic building blocks for formulating development interventions in participation with the concerned communities. The profiles constituted a powerful tool for understanding poverty and the poor, and for addressing poverty and fisheries management in an effective manner. The chapter includes highlights from some of the poverty profiles developed for individual areas and countries as well as examples of how the profiles were used in subsequent development interventions.

## **POVERTY PROFILING**

Poverty profiles – or livelihood profiles or assessments as they are also called – have been used by several development agencies in various countries in Africa, Latin America and Asia since the late 1990s (Pittaluga, Salvati and Seghieri, 2004). A poverty profile describes groups of poor people, defined according to their livelihood systems and other characteristics. The questions that poverty profiles help answer include who the poor are in a particular geographic area, why they are poor and what specific actions are required to address their needs (Pittaluga, Corcoran and Senahoun, 2004). Poverty profiles are hence analytical instruments that provide information to help formulate actions for poverty reduction. They can be carried out at the national level or for more limited areas such as a community. National level poverty assessments using secondary

data and participatory methods are key tools in countries preparing Poverty Reduction Strategy Papers (PRSPs) in line with World Bank and International Monetary Fund (IMF) requirements (World Bank Web site; Macfadyen and Corcoran, 2002).

The SFLP methodology used for poverty profiling had its origin in work by FAO in the early 2000s (see, for example, FAO, 2001). Although the methodology evolved over time and the focus of the analysis was somewhat different in different countries (see also below), the main principles of the approach can be summarized as follows:

- “Use of the Livelihood System as the ‘lens of analysis’;
- zero-in approach (from larger units of analysis to smaller ones);
- participation at macro- meso- and micro-levels;
- use of unwritten information vested in the institutional memories of stakeholders at meso level;
- use of mixed sets of qualitative-quantitative methods for data collection and analysis”

(Pittaluga, Salvati and Seghieri, 2004, p. 11)

Using a livelihood systems approach facilitated a holistic analysis covering the existing multitude of poverty facets – i.e. human, natural, financial, physical and social capitals – and including the important aspects of social exclusion and vulnerability. The vulnerability aspect of poverty was documented in depth and analysed at different levels. The vulnerability factors were discussed and analysed with representatives of institutions at the meso level and during focus group meetings at the village level. The vulnerability at the household level was discussed during the analysis of the characteristics of different poverty categories and the perception of poverty. There was however no specific exercise to address issues of exclusion and only a few of the poverty profiles did mention factors leading to exclusion (e.g. in Congo and the Gambia).

In order to understand the full extent of the livelihood system, a zero-in approach was used. A national or regional poverty profile takes a somewhat different focus than one at the community level but in both cases it is important to include stakeholders at all relevant levels. Reality is not always understood in the same way by everyone. Sometimes overarching policy mechanisms are not clear to the village or household members, which is why it is important to also directly include higher institutional levels in a local poverty analysis. By including the participation of people at the macro (e.g. national or regional), meso (e.g. subregion or department) and micro (village or household) levels, a full range of interpretations of the various structures and relationships relevant to the livelihood system of the local community could be captured (Pittaluga, Salvati and Seghieri, 2004).

The profiling exercises combined written and oral information and it was found that a substantial amount of information often exists within development institutions or with individuals at the meso level who work with local communities. While some of this information may be available in reports and documents, other is not and it can only be accessed by oral communication (Pittaluga, Salvati and Seghieri, 2004).

The SFLP poverty profiling sought to combine full stakeholder participation and scientific principles and initially extensive quantitative data were used in addition to qualitative information. (Pittaluga, Salvati and Seghieri 2004). The first poverty profiles carried out by the programme concerned lakeside communities in four countries – Burkina Faso (Lake Bagré and Lake Kompienga), Côte d’Ivoire (Lake Kossou), Ghana (Lake Volta) and Mali (Lake Sélingué) – and included detailed questionnaire surveys of which the results were analysed statistically. The results of the assessments fed into the formulation process for the Pilot Project on co-management in inland waters.<sup>4</sup> As

<sup>4</sup> See Chapter 1 for an overview of the SFLP project activities and Chapter 5 for more information on the co-management initiatives.

## BOX 2

**Poverty profiling processes in Lake Sélingué, Mali, and in Lake Volta, Ghana**

The poverty profiling surveys in Mali and Ghana started with analyses of existing secondary data, focusing on information on artisanal fisheries livelihoods, poverty and food security issues, existing experience of co-management of natural resources, and institutions working with small-scale fishers. This was followed by collection of data and discussions in the field. In Ghana, one-day workshops were organised bringing together officials, private sector representatives and civil society key informants from the five administrative districts on and around the southern shore of Lake Volta. These workshops discussed large-scale dynamics affecting the communities in the different districts.

The community level field surveys were carried out by multidisciplinary teams including specialists in gender, socio-economics and fisheries and focused on a selected number of villages in the areas that had been proposed for participating in the SFLP inland water co-management Pilot Project (eight villages out of 72 in Mali and 35 out of 100 in Ghana). Three main types of exercises took place:

- Discussions in focus groups consisting of representatives of community institutions and key informants (e.g. the village chiefs, school principals, heads of socio-professional associations).
- Participatory discussions, using PRA tools (e.g. wealth ranking and Venn diagrams), with community members in groups according to gender and age.
- Questionnaire surveys based on SLA.

The questionnaire surveys were constructed in different ways in the two countries. In Mali, the household was the unit of analysis and the questions focused on household demographics and assets, participation in and use of institutions and services, access to natural resources, current livelihood strategies, and access to financial services. In Ghana, the analysis took place at the village level and the questionnaires were constructed based on Likert scales<sup>1</sup>.

In the data analysis process, the accumulated qualitative information was first analysed to arrive at a local perspective of poverty and to attempt to classify the population into wealth classes. These findings were then compared with the results of the statistical analysis of the data collected by questionnaire. In Mali, a set of indicators was combined into a general poverty index using fuzzy sets statistical analysis. This permitted the incorporation of different aspects of livelihoods (e.g. assets, vulnerability and resilience levels) into a composite index that could be used for, among other things, monitoring purposes and comparisons between villages.

<sup>1</sup> Likert scales are commonly used in questionnaire surveys asking respondents to tell to which degree they agree with a certain statement. An example from the Lake Volta survey is the statement 'Fish catches over the past 5 years have...' 1. substantially decreased. 2. somewhat decreased. 3. remained stable. 4. slightly increased. 5. increased considerably (Pittaluga *et al.*, 2003).

Source: Pittaluga *et al.*, undated; Pittaluga, Salvati and Seghieri, 2004.

examples of this methodology, the procedures followed for the poverty profiles of Lake Sélingué in Mali and southern Lake Volta in Ghana are summarized in Box 2.

However, the methodology proved to be time-consuming and required skills in statistical analysis that were not generally available locally. Also, the statistical models used were over-parameterised causing problems at the analysis stage. For the



continuation of the poverty profile exercises that were carried out for the formulation of the Pilot Projects on maritime co-management and on improvements in the post-harvest subsector<sup>4</sup>, a simplified methodology was used, focusing more on qualitative information. The process included a review of secondary information followed by a brainstorming session with representatives of institutions at the district level and focus group discussions with community members in a sample of villages. In these discussions, community members were divided into groups according to gender, age, ethnic group or any other characteristic likely to determine significant differences in perceptions. A wide spectrum of stakeholders was involved and local perceptions of poverty were explored and compared to other survey results. Past experiences were reviewed and lessons learned on what had worked and what had not were noted as inputs into the formulation of project activities (Pittaluga, 2002).<sup>5</sup>

A team consisting of a socio-economist, a gender specialist, a sociologist and a fisheries expert carried out the surveys. Some difficulties encountered by the field teams included:

- Communication and transport problems due to language barriers and lacking infrastructure.
- A tendency of communities to see visitors from projects and the administration as potential donors with miracle solutions sometimes leading to biased discussions and long lists of needs (rather than an analysis of root causes).
- Difficulties for some community members to express themselves in public due to cultural or social constraints or unwillingness on behalf of some villagers to participate due to a particular political situation.

(Angaman, 2003; Djangone *et al.*, 2003; Njifonjou *et al.*, 2003b).

Triangulation, *i.e.* a process of cross-referencing sources commonly used as part of participatory appraisal approaches, and other validation methods were generally effective in overcoming these difficulties.

## POVERTY IN WEST AFRICAN SMALL-SCALE FISHERIES COMMUNITIES

The results of the poverty profiles confirmed the complexity of poverty in fishing communities and illustrated some of its particularities. They showed that fishing communities may not be as poor in monetary terms as previous national poverty assessments may have indicated – due to a focus in these surveys on assets that many fishing people do not own (e.g. agricultural land) – but that they often suffer from a high degree of vulnerability and social exclusion (FAO, undated).

Nonetheless, assets and income do of course still play an important direct role in fishing people's poverty and while income from fishing and related activities may at times be higher than generally expected in the rural community context, these earnings are commonly seasonal and subject to a high degree of uncertainty. There is also an important variation in incomes between communities and among different socio-professional groups within communities; boat owners and large-scale traders can be among the wealthiest but crewmembers are commonly at the other end of the rural income scale (FAO, undated). Not surprisingly, those with no or few productive assets were generally found to be among the poorest. It was also noted that women were often poorer than their male counterparts (Coulibaly, 2003; Jallow *et al.*, 2003; Njifonjou *et al.*, 2003).

In the post harvest sector, the degree of poverty and vulnerability differed according to the position the actors have in the chain and the skills and market access they have

<sup>5</sup> In addition to the countries/areas mentioned above, this chapter mainly draws on the SFLP Poverty Profiles and related working papers for Cameroon (Mbakaou waterbody), Chad (Lake Chad and Chari river), Congo (Lake Kouilou), Gabon (Noya and Komo Mondah districts), the Gambia (villages around the western/central part of the Gambia River), Guinea (Boffa and Boké districts) and Senegal (Mbour and Foundiugne districts)

been able to negotiate. In the Gambia, fish smokers, fish dryers and oyster harvesters were identified as the poorest segments due to their limited access to and control of resources and assets, i.e. financial resources (credit), physical (distant markets), human (education skills and information), natural (especially land and sometimes fish resources) and social (institutions) (Jallow *et al.*, 2003). In the Pilot Project zone in Chad, the organization and control of the post harvest sector was found to be in the hands of those categorised as “well off and less poor groups”. The difficult access and harsh working conditions in the zone contributed to the fact that without adequate equipment, sufficient capital or access to credit it was impossible to work as a collector, trader or wholesaler (K. Holvoet, personal communication, 2007)

Those who could diversify their income generating activities were better off than those who did not. The survey of fishing communities in the districts of Boffa and Boké in Guinea showed that this included fishers who had fishing gear allowing them to engage in different fisheries according to season. For women, however, a diversity of activities did not always guarantee a better situation if they were not in possession of the productive assets. In Guinea, it was found that women who engaged in salt and vegetable oil extraction in households where the revenues accrued to the male decision-maker were not necessarily better off from diversification (FAO, undated; N’Dia *et al.*, undated). Overall, there were many examples of fishers-farmers in the region and combining different economic activities was a common livelihood strategy. In the inland water areas, the combination of agriculture and fishery activities was found to be particularly common. However, for some, e.g. migrant fishing households, this may not be a realistic possibility due to restrictions with regard to access to land and other resources (Njock, 2007).

Also local fishing people commonly lack formal land titles and are often excluded from equitable access to land. This situation is particularly pronounced with regard to women; in the poverty profiling survey area in Guinea, women land owners were found only in one village, Dobiré (N’Dia *et al.*, undated).

Factors that are often closely correlated with poverty are isolation and lack of access to services and institutions. Around Lake Sélingué in Mali, the poorest community groups were found in areas with poor access to the road network and markets (Pittaluga *et al.*, undated). Access to health and other services, including government extension facilities and financial products, were noted as particular constraints in several areas, e.g. in the southern Lake Volta area in Ghana and around the two lakes in Burkina Faso. Moreover, illiteracy levels were found to be high, in particular among women, hindering access to information and services (SFLP, undated b; Pittaluga *et al.*, 2003). In Gabon, the existence or absence of infrastructure and services was perceived to contribute significantly to poverty levels and the further away the fishing village was from Libreville, the more likely a lack of safe water sources, schools and health services (Djangone *et al.*, 2003). In Mali, the lack of formal land ownership was found to contribute to the social exclusion of fishing people in development processes and to further impede their access to public services since they do not appear in formal registers (SFLP, undated c).

The poverty profiles showed that many fishing communities exhibit low levels of engagement in local development. Their political power is limited and there appears to be a general lack of community organizational structures. This situation is particularly distinct for migrants and the lack of involvement in local development is in some countries related to the migration policy – or the lack of a policy – and an animosity of fisheries institutions towards foreign fishers. In the fourteen villages surveyed in Gabon (Noya and Komo Mondah districts) where the fishers are predominantly immigrants, the uncertain legal status of many of the foreign fishing people constituted a disincentive to organizational engagement (Djangone, 2003). In Mauritania, the artisanal fisheries sector is also characterised by migration and many fishing villages

along the coast are mere “fishing camps”, although more or less permanent, and hence low levels of community organization are common. In fact, migration is an important feature of artisanal fisheries in the whole West and Central Africa region. The poverty profiles showed that the poverty situation of immigrant groups is sometimes different from that of the native population because of their marginalisation and exclusion in development processes (Njock, 2007). On the shore of Lake Kossou, Côte d’Ivoire, the livelihood sustainability of fishing people is further compromised by ethnicity based clashes between fishers and farmers and by a broader economic and political crisis in the country that threatens personal and asset security (Pittaluga *et al.*, 2002).

Lacking political power and low levels of organizational strength make small-scale fishing communities vulnerable to unfair treatment and neglect. Small-scale fishers are often the weaker party in conflicts with other resource users, e.g. industrial trawlers encroaching on inshore fishing grounds, and may be pushed to take additional risks in order to fish. In a study undertaken by SFLP’s predecessor, the Programme for Integrated Development of Artisanal Fisheries in West Africa (IDAF), in seven West African countries in 1991-1994, incidents with industrial vessels getting their trawls entangled in fishing nets and dragging them away while canoes are fishing were among the main causes for accidents at sea (Gallène, 1995). During the poverty profiling exercises in Congo, Guinea and Gabon, infractions by larger vessels in the artisanal fishing area and safety at sea were identified as significant vulnerability factors (Njock, 2007).

Generally, the local communities surveyed by SFLP expressed alarm with regard to diminishing fishery resources although this was not always mentioned as a priority worry. In the Gambia, communities had noted declining resources and felt the reason was illegal fishing and a higher fishing pressure due to increasing number of fishers (Jallow *et al.*, 2003). Forty-five percent of the fishers interviewed during the poverty profiling exercise in Ghana considered that the fishery resources had declined considerably, also citing illegal fishing practices as one reason together with the destruction of shore habitats due to farming activities and diminishing rainfall (Pittaluga *et al.*, 2003). Likewise, in Gabon, demographic factors and destruction of mangrove areas were given as explanations to production decreases (Djangone *et al.*, 2003). In some countries, unfair access to resources (the Gambia) and a need for fishery management were mentioned (Cameroon) (Jallow *et al.*, 2003; Njifonjou *et al.*, 2003).

### **POVERTY, VULNERABILITY AND SOCIAL EXCLUSION IN THE CONTEXT OF SMALL-SCALE FISHERIES MANAGEMENT**

Outsiders’ perceptions of poverty do not always correspond to how poor people themselves see their situation. At the same time, local people do not always see the links and wider context of their own situation. Using a participatory livelihoods perspective and analysing poverty at micro, meso and macro levels achieved a better understanding, both of what priorities poor people have and of the institutional framework relevant to their livelihoods. The SFLP poverty profiles illustrated in particular the significance of vulnerability and social exclusion in the overall poverty picture. This was an important outcome of the poverty profiling. Income and asset poverty, vulnerability and social exclusion can be seen as three components of poverty and while the three concepts are closely related, they generally require different entry points for development (FAO, undated) (see Box 3).

The profiles helped identify the target groups for the Programme’s interventions by providing a classification of poor fishing people into subgroups of poverty and showed the relatively high level of heterogeneity of fishing communities with regard to livelihood situations and strategies. The poverty surveys also emphasised the need to take micro, meso and macro linkages into consideration and confirmed the importance

BOX 3  
Poverty, vulnerability and social exclusion



Poverty can be divided into three interrelated concepts: income and asset poverty, vulnerability and social exclusion. Standardized measures of asset and income poverty can be expressed as poverty lines and be compared to targets. Vulnerability refers to people's exposure to risks, how sensitive their livelihoods are to these risks and what their capacity is to cope and adapt to risks. Social exclusion or marginalization refers to the process by which certain population groups are systematically disadvantaged because they are discriminated against. The SFLP experience showed that the two dimensions vulnerability and social exclusion are at the centre of poverty in West and Central African fishing communities.

*Source:* FAO, undated.

of institutions. In order to achieve sustainable improvements at the local level, changes of policies, institutions and processes (PIP) are essential. Moreover, there are significant cross-sectoral linkages since livelihoods generally are diversified.

Another finding – related to the importance of vulnerability – was that, for poor fishing people, the risk of resource degradation and the need to manage fisheries might not represent a main concern. In fact, the results of the SFLP poverty profiling and the exploration of local perceptions of poverty pointed to other needs and threats. This is typical in situations with high vulnerability since this tends to reduce the incentives to save and to invest in future. Hence, in order to enable fishers to engage in fishery management, it is essential to reduce their vulnerability by addressing other needs they identify (FAO, undated).

#### USING THE ENHANCED KNOWLEDGE OF POVERTY

The poverty profiles were key inputs into the formulation of the three SFLP Pilot Projects and other related Community and Institutional Support projects.<sup>6</sup> They also

<sup>6</sup> Chapter 1 gives an overview of the different Programme components and projects.

provided a baseline that could be used for impact monitoring purposes although this did not work as may have been intended. Reasons for this included that the monitoring systems conceived by the Programme were complex and data intensive – as the original poverty profiling methodology had been – and hence difficult to implement. There was also a certain focus on project development processes rather than on monitoring of implementation and impact, and this coupled with time constraints led to difficulties in impact monitoring (Cunningham and Holleran, 2007).

Nonetheless, the poverty profiles contributed directly to the Programme's objectives by facilitating the formulation of demand-driven and poverty-focused interventions. In the context of the Pilot Projects on co-management and post-harvest activities, the profiles provided essential information with regard to relationships among different institutions and the communities. They also ensured that the objective of fisheries co-management was supported by accurately addressing vulnerability issues. The co-management Pilot Projects included the following key features and components:

- a process of awareness creation, participation and partnerships with communities, meso and macro level institutions, and NGOs;

- support to livelihood diversification through capacity building and training combined with the establishment of improved access to financial services by partnerships with micro-finance institutions (MFIs);

- literacy training and other skills development especially designed for the needs of fishing people;

- integration of fishing communities in local development by lobbying for increased attention and providing information of these communities to the national policy and development level, e.g. enabling inclusion of fishing communities in national Poverty Reduction Strategy Papers (PRSPs) and in health and HIV/AIDS action plans;

- development of co-management institutions based on community and socio-professional organizations at the micro and meso levels, and of appropriate linkages to the macro level. The co-management committees included a wide range of stakeholders and extensive support to capacity building was given to ensure participation by all groups. Organizational capacity building included participatory management and conflict resolution;

- inclusion of the post-harvest sector in project activities, in particular by assisting them with regard to organizational development and ensuring that these organizations are linked to the resource management structures; and
- assistance to national level policy and legislation work in order to create a political and legal framework allowing the legalisation of local co-management arrangements.
- (Angaman, 2007; Njock, 2007; K. Holvoet, personal communication, 2007)
- Partnerships were particularly important to the capacity building and training activities. As an example of activities and partners, Table 2 gives an overview of SFLP capacity building in Guinea together with the service providers.

The SFLP Community and Institutional Support projects also used information from the poverty profiles, or – when there was no poverty profile available for the particular intervention area – used elements of the poverty profiling methodology as part of the project formulation process. In addition to the co-management (mentioned above), these projects contributed to three themes, i.e.; (i) integration of fisheries into local development; (ii) market access and improved marketing; and (iii) integration of fisheries into national development policies. There were also three cross-cutting themes identified; gender, HIV/AIDS and communication. The principles of the projects were analogous to those of the co-management and post-harvest Pilot Projects and many of the activities were in direct support of these. Some examples of activities carried out and the benefits produced include:

TABLE 2  
SFLP capacity building and partners in Guinea

Subject matter	Partner
Functional literacy	NGO EUPD
Organizational development (including decentralization, participatory management, conflict management, savings and credits).	NGO CENAFOD
Awareness raising with regard to HIV/SIDA and other illnesses	Sector Committee for the Fight against AIDS (Comité sectoriel de lutte contre le SIDA)
Fish processing	NGO HTS
Safety at sea	Maritime Navigation Agency (ANACAM)
Environment management	Boussoura National Fisheries Science Centre (CNSHB)
Appeals and lobbying	Project management team
Analysis of traditional communication and dialogue systems	Guinea National Fisheries Observatory (Observatoire national des pêches en Guinée)
Support to communities for the formulation of development projects	Commission for the Coordination of Artisanal Fisheries Training and Development (CCFAD)

Source: Adapted from Njock, 2007, p. 10.

- promoting livelihoods diversification (fish drying, cassava production, goat rearing) in support of co-management in Congo led to increased incomes and reduced vulnerability for fishing households;
- analysing gender issues in microfinance and providing training in business skills and enterprise development increased women's participation in management of their socio professional organizations, village management committees, infrastructure (ice plants and processing equipment) and in the credit union or cooperative unions in the Gambia, Niger, Chad and Nigeria;
- achieving national level commitment to the provision of literacy services in fishing communities and using fisheries specific literacy training modules contributed to improved literacy rates which in turn led to increased use of health services and more effective participation of members in the management of community based organizations in Burkina Faso;
- financing the construction of a transport boat and providing training in navigation and in business management helped a local NGO in São Tomé e Príncipe to set up transport service facilitating the marketing of fish; and
- assisting communities in Guinea to address conflicts between artisanal and industrial fisheries through participatory monitoring, control and surveillance (MCS) in partnership with relevant government authorities reduced fisher household vulnerability (by improved safety at sea) and increased incomes. (Holvoet, 2007).

The experience of SFLP clearly showed that by properly analysing the different dimensions of poverty and understanding its context as well as the micro, meso and macro linkages, interventions could be designed that both provide poverty reduction and promote responsible fisheries. By focusing community development on the strengthening of human capitals (training, education, improved access to health and other services, etc) and social capitals (community organizational skills, inclusion of marginalised groups, supporting networks and linkages, etc), a solid foundation was laid for reinforcing and building the physical, natural and financial capitals. Fishing

communities that are sensitised, informed, educated, and given self-esteem and responsibility have great potential to achieve poverty reduction and sustainable fisheries management. However, it is a long process and while the SFLP projects produced a number of significant successes – in terms of local level capacity building and influence at the macro policy level creating increased awareness of the importance of small-scale fisheries – continued support to the participating countries and communities will be needed to sustain and further enhance these achievements.

## REFERENCES

- Allison, E. & Horemans, B. 2006. Putting the principles of the sustainable livelihoods approach into fisheries development and practice. *Marine Policy*, 30(2006): 757-766.
- Angaman, K. 2003
- Bastiaensen, J., De Herdt, T. & Vaessenm J. 2002. Poverty, institutions and interventions – a framework for an institutional analysis of poverty and local anti-poverty interventions. *IDPM-UA Discussion Paper 2002-06*. Antwerp, Belgium. University of Antwerp, Institute of Development Policy and Management. 48pp.
- Béné, C, Macfadyen, G. & Allison, E.H. 2007. Increasing the contribution of small-scale fisheries to poverty alleviation and food security. *FAO Fisheries Technical Paper* No 481. Rome, FAO. 125pp.
- Béné, C. 2003. When fishery rhymes with poverty: a first step beyond the old paradigm on poverty in small-scale fisheries. *World Document*, 31(6): 949-975.
- Coulibaly, M., Deme, M. Diop, N. & Kane, A. 2003. *Étude du profil de pauvreté des communautés de pêche des départements de Mbour et de Foundiougne, Sénégal*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working paper). 41pp.
- Cunningham, S. & Holleran, E. 2007. *Final Evaluation of the Sustainable Fisheries Livelihoods Programme (SFLP), GCP/INT/735/UK. Final Report, 2 March 2007*. Rome, FAO (unpublished). 78pp.
- Djangone, A.M.R., Ovono Edzang, N., Mouele Mouele, C., Angoue-Aguee, C. & Rerambbyath, G-A. 2003. *Profil de pauvreté dans les communautés de pêche artisanale des départements de la Noya et du Komo Mondah, Gabon*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working paper). 61pp.
- ECOSOC. 2001. Poverty and the International Covenant on Economic, Social and Cultural Rights: 10/05/2001. E/C.12/2001/10. (Other Treaty-Related Document). 10 May 2001 (available at [www.unhcr.ch/tbs/doc.nsf/\(Symbol\)/E.C.12.2001.10.En?Opendocument](http://www.unhcr.ch/tbs/doc.nsf/(Symbol)/E.C.12.2001.10.En?Opendocument)).
- FAO. 2001. Food insecurity: when people live with hunger and fear starvation. *The state of food insecurity in the world 2001*. Rome, FAO (also available at [www.fao.org/DOCREP/003/Y1500E/Y1500E00.HTM](http://www.fao.org/DOCREP/003/Y1500E/Y1500E00.HTM))
- FAO. 2002. Report of the Sustainable Fisheries Livelihood Programme (GCP/INT/735/UK) and FAO Advisory Committee on Fisheries Research Joint Working Party on Poverty in Small-scale Fisheries. Promoting the Contribution of the Sustainable Livelihoods Approach and the Code of Conduct for Responsible Fisheries sin Poverty Alleviation. Rome, 10-12 April 2002. *FAO Fisheries Report* No 678. Rome, FAO. 22pp.
- FAO. Undated. Reducing fisherfolk's vulnerability leads to responsible fisheries. *New directions in fisheries. A series of policy briefs on development issues*. Rome, FAO. 12pp. (also available at [www.sflp.org/briefs/eng/01.pdf](http://www.sflp.org/briefs/eng/01.pdf)).
- Gallène, J. 1995. Data compendium on safety at sea for seven West African countries: Mauritania, Senegal, the Gambia, Guinea-Bissau, Guinea, Sierra-Leone and Cape Verde, 1991–94. Programme for Integrated Development of Artisanal Fisheries in West Africa (IDAF). *Technical Report* No 71. Danida and FAO. Rome, FAO. 23pp.
- Holvoet, K. 2007. *Lessons learned from community and institutional support projects: internal evaluation 2000-2006*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 121pp. (available at [www.sflp.org](http://www.sflp.org)).

- Jallow, A., Nyassi, F., Bah, M., Njie, & Decosta, M. 2003. *Report on the Poverty profile of fisheries communities in the Gambia* (March 2003). Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document). 65pp.
- Macfadyen, G. & Cocoran, E. 2002. Literature review of studies on poverty in fishing communities and of lessons learned in using sustainable livelihoods approach in poverty alleviation strategies and projects. *FAO Fisheries Circular* No. 979. Rome, FAO. 93pp.
- Narayan, D., Chambers, R., Shah, K.M. & Petesch, P. 2000. *Voices of the poor: Crying out for change*. The World Bank and Oxford University Press, New York. 332pp (available at [www1.worldbank.org/prem/poverty/voices/reports/crying/cry.pdf](http://www1.worldbank.org/prem/poverty/voices/reports/crying/cry.pdf)).
- N'Dia, Y., Diallo, M.M., Traore, S., Sylla, S.D. & Soumaro, B. Undated. *Profil de pauvreté des communautés de pêche artisanale du littoral Guinéen (Préfectures de Boffa et Boké)*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document). 47pp.
- Njifonjou, O., Weulassagou, R. D., Mindjimba, K. & Mouchikpou, A. 2003. *Étude du profil de pauvreté des communautés de pêche de la retenue d'eau de Mbakaou au Cameroun (March 2003)*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document). 89pp.
- Njifonjou, O., Bara, S., Dara, L. & Yonoudjoum, C. 2003b. *Profil de pauvreté des communautés riveraines du lac Tchad et du fleuve Chari* (January 2003). Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document). 64pp.
- Njock, J-C. 2007. *Projet pilote d'aménagement participatif des pêches en zone côtière au Congo, au Gabon, en Guinée et en Mauritanie. Rapport Terminal. May 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 34pp (available at [www.sflp.org](http://www.sflp.org)).
- Pittaluga, F. 2002. *Field guide for poverty analyses in artisanal fishing communities*. Sustainable Fisheries Livelihoods Programme (SFLP) and SIFAR. FAO, Rome. 21pp.
- Pittaluga, F., Corcoran, E. & Senahoun, J. 2004. Poverty profiles of artisanal fishers: methods based on the SLA model. In Neiland A.E. and C. Béné (eds), *Poverty and small-scale fisheries in West Africa*. FAO/Kluwer Academic Publishers. 2004. Pp 103-119.
- Pittaluga, F., Salvati, N. & Seghieri, C. 2004. *Livelihood systems' profiling. Mixed methods for the analysis of poverty and vulnerability*. SFLP/SIFAR/FAO. 45pp.
- Pittaluga, F., Braimah, L.I., Bortey, A., Wadzah, N., Cromwell, A., Dacosta, M, Seghieri & Salvati, N. 2003. *Poverty profile of riverine communities of southern Lake Volta. Ghana (January 2003)*. Sustainable Fisheries Livelihoods Programme in West Africa. (SFLP) report. 76pp.
- Pittaluga, F., Coulibaly, M., Cisse, A., Haïdara, H., Dembele, S.N., Koné, Y., Seghieri, C. & Salvati, N. Undated. *Analyse de la pauvreté dans les communautés de pêche artisanale autour de plan d'eau de Sélingué, Mali*. Sustainable Fisheries Livelihoods Programme (SFLP) unpublished working document. 82pp.
- Pittaluga, F., Oumarou, N., Juliette, A., Alain, K., Youssouf, N., Salvati, N. & Seghieri, C. 2002. *Profil de pauvreté dans les communautés riveraines du lac de Koussou en Côte d'Ivoire (November 2002)*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document). 96pp.
- Pittaluga, F., Traoré, K.G., Zigani, N.S.N., Zerbo, H., Baro, Z., Salvati, N. & Seghieri, C. 2003. *Profil de pauvreté dans les communautés de pêche de Bagré et de Kompienga. Burkina Faso (February 2003)*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document). 112pp.
- SFLP. Undated a. *Moyens d'existences dans un contexte d'isolement. Migration et faible capital social autour du bassin sud du lac Volta, Ghana*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 4pp. (available at [www.sflp.org](http://www.sflp.org)).
- SFLP. Undated b. *Pêcheurs-agriculteurs ou agriculteurs-pêcheurs? Les moyens d'existence des communautés rurales autour des lacs Bagré et Kompienga, Burkina Faso*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 4pp. (available at [www.sflp.org](http://www.sflp.org)).



**SFLP.** Undated c. *Poverty Profile Mali. Sustainable Fisheries Livelihoods Programme (SFLP)* report. 4pp. (available at [www.sflp.org](http://www.sflp.org)).

**UNDP.** Undated. *Human development indices – HDR* (available at [hdr.undp.org/en/humandev/hdi/](http://hdr.undp.org/en/humandev/hdi/)).

**UNHCR.** Undated. *Human rights in development* (available at [www.unhcr.ch/development/poverty-02.html](http://www.unhcr.ch/development/poverty-02.html)).

**World Bank** poverty Web site (available at [www.worldbank.org/poverty](http://www.worldbank.org/poverty)).

**World Bank.** 2001. Overview – Attacking poverty: Opportunity, empowerment and security. In World Bank, *World Development Report 2000/2001*. World Bank Oxford University Press, Oxford, 2001, 335 pp (available at [siteresources.worldbank.org/INTPOVERTY/Resources/WDR/overview.pdf](http://siteresources.worldbank.org/INTPOVERTY/Resources/WDR/overview.pdf))



### 3. Reassessing the economic and social contribution of fisheries in developing countries

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#### INTRODUCTION

The fishery sector plays multiple roles in the national economies of West and Central African countries and contributes to economic growth, employment, exports and tax revenues. A high proportion of these benefits are generated by the small-scale subsector which plays an important role in food security and poverty reduction that are essential elements of global development strategies as expressed in the Millennium Development Goals (MDGs) (FAO, 2006; Heck, Béné and Reyes-Gaskin, 2007).

In most cases, the current and potential role of small-scale fisheries in poverty reduction and food security is not well documented by national statistical systems and is poorly recognized (Thorpes *et al.*, 2005). The subsector is consequently neglected in both fisheries and national policies (Dugan, 2005; Horemans and Kébé, 2006). Few attempts have been conducted so far to document the contribution of small-scale fisheries to the livelihood of African populations (Béné, 2005; Béné, 2006).

National statistical systems use the national accounts as the framework for evaluating the overall economic importance of the national economy and individual sectors. The national accounts system of a country allows economists to measure and monitor “the level of economic development and the rate of economic growth, the change in consumption, saving, investment, debts and wealth” (UNSD, 2003, p.1), for the economy as a whole or specific parts of the economy. The United Nations Statistics Division (UNSD) provides guidelines for countries how to set up national accounts, i.e. the United Nations System of National Accounts (UNSNA). UNSD also compiles national accounts data over 200 countries on an annual basis, allowing for aggregated macro-economic analysis and comparisons between countries (UNSD, 2003).

National data aggregated in time series and by sector can be used for appreciating the priority given to individual sectors or activities of the national economy and this information is used for development planning purposes. One of the most commonly used aggregates for measuring economic growth is the Gross Domestic Product (GDP).

The GDP is an aggregate production measure based on the gross value added created by the residents of a country. To compose the aggregate, national economic activities are divided into three main sectors: primary (production), secondary (industry) and tertiary (all services including trade). The conventional approach to evaluate the GDP of a sector such as fisheries is to consider it entirely part of the primary sector and hence only include value added created in primary production activities, i.e. fishing. The value of fish processing and trade activities, which are in many respects the driving forces of the fisheries sector, are counted for under other items (secondary and tertiary sectors) and hence not appear as part of the fisheries sector GDP.

More importantly, to only look at the economic contribution of the fisheries sector as measured by GDP ignores many other economic and social considerations and is likely to lead to undervaluing its economic importance. This could result in a number

of disadvantages for the sector with regard to budgetary support and prioritisation in development planning.

Recognising these weaknesses of current economic assessment practices, the SFLP developed a methodology considering a wider range of economic and social impacts of the fisheries sector. Particular attention was nevertheless paid to issues related to the contribution of fishery sector to GDP since it is the indicator of reference for most decision makers and donors. The approach included the whole fish value chain, i.e. from fishing through to trade and retail marketing. The value added created by the various elements of the system were aggregated into a revised GDP measurement including (i) actual fishing or fish production, (ii) trade of fresh fish products, (iii) processing of fresh fish products and (iv) trade of processed fish products. This approach was complemented by the development of other basic indicators related to the creation of national wealth, employment and food security to better appreciate the economic and social contribution of fisheries sector (Kébé, 2007).

This chapter looks at the methodology used by SFLP to carry out economic studies and presents the results of studies in 15 countries.

## **SFLP VALUATION METHODOLOGY**

### **Selection of basic reference methodologies**

A detailed evaluation of the economic and social performances of a sector like small-scale fisheries needs data, tools and human expertise that were unfortunately not available in most of SFLP participating countries. Moreover, the SFLP initiative was not intended to be part of a process to assist government in planning, since this would require more sophisticated means and methods of collecting, analyzing and processing data. This is why the procedure adopted by the Programme and presented here should rather be seen as a 'simplified' tool that can be used to conduct an appraisal – and not necessarily to produce a detailed and accurate assessment – of the contribution of fisheries to national economies and welfare. The objective sought was to make some first step towards a better and cost-effective assessment of the contribution of fisheries to national, regional and local economies.

No one specific methodological approach suffices to estimate the contribution of the fisheries sector to economic and social development. The determination of the economic value, for example, of a natural resource like fisheries becomes irrelevant if people whose livelihoods depend on these natural resources cannot access them (Béné and Neiland, 2003a). The various analytical frameworks available offer a set of complementary techniques which when properly applied, can help to improve understanding of the contribution of fisheries sector to national economic development and to the livelihoods of the local populations.

The SFLP approach integrated the main basic indicators developed in other methodologies for valuation of fisheries, particularly indicators of national wealth, employment and food security (Anon., 2004; Béné and Neiland, 2003a; Béné and Neiland, 2003b; Béné, Macfadayen and Allison, 2006; Emerton and Muramira, 1999; FAO, 2005; Kébé, 1998; Murray, 2003; Sarch and Allison, 2000; Yaron *et al.*, 2004). There are three broad but complementary approaches potentially applicable to the valuation of fisheries, i.e. conventional economic valuation, economic impact analysis and socio-economic analysis. They were reviewed by Béné and Neiland (2003a), although in the specific context of inland fisheries.

In the broader context of complementarities between these empirical methodologies, the SFLP methodology used the total economic value analysis (part of conventional economic valuation method) and the livelihood approach (part of socio-economic analysis) in determining the economic and social contribution of the fisheries sector in West and Central African countries. Considering its importance as a reference for decision makers and donors, particular attention was paid to issues related to

the contribution of fishery sector to GDP, but the approach also integrated other basic indicators to better appreciate the contribution to food security and poverty reduction.

### Identification of counterpart organizations

As mentioned above, the purpose of the SFLP methodology for assessing the contribution of small-scale fisheries to national economy was to provide basic knowledge, as well as a low-cost methodology, to facilitate the calculation of the economic and social benefits of the small-scale fisheries sector. At a later stage, this could lead to the full exploitation of the “strategic” information that the exercise could eventually produce. To achieve these objectives, two options were considered: to work closely with fisheries departments to generate the information or to involve the government service in charge of statistics (e.g. ministry of planning).

These two options were tested and analysed in real conditions, for relevance and efficiency issues through a case study conducted in Benin during a period of one month. The test made it possible to validate the proposed methodology as a tool to reinforce the capacities of the fisheries departments and their partners in production and valorisation of strategic information on the contribution of fisheries sector to national economies. It appeared that this option was more relevant and efficient than the other one, it proved difficult to develop appropriate networks and information channels to facilitate access to basic data on the fishery sector by governmental services in charge of official statistics (Houndekon, Fagbohoun and Ekue, 2003).

### Definition and construction of indicators

In the SFLP methodology the process of defining indicators took place in a three step approach: (i) identify the type of indicators most relevant and that can be produced at the least cost; (ii) identify the type of data required to build these indicators; and (iii) proceed to the calculation (or development) of these indicators.

The basic indicators used in the SFLP methodology have been classified under three main categories: (i) national wealth, (ii) employment and (iii) food security.

The SFLP methodology considered a wider range of economic and social impacts of the fisheries sector to assess the *national wealth* created by the sector. As an improved measurement of the *contribution to economic growth*, the value added created by the various elements of the fisheries system were aggregated into a revised GDP measurement including (i) actual fishing or fish production, (ii) trade of fresh fish products, (iii) processing of fresh fish products and (iv) trade of processed fish products.

This meant including the main stages of the fish value chain from fishing itself to retail marketing. It also recommended to take into account the wealth created by auxiliary activities, e.g. while supplying inputs for the production. However, in reality, such an economic analysis proved too difficult to implement and as a supplement to indicators based on GDP and trade aspects, an assessment of *annual investments in fisheries* was used as a proxy for national wealth created by the fisheries sector.

By estimating the amount of annual investments in the fisheries sector, an assessment of the quantity of monetary resources mobilized each year by the sector can be made. It refers to boats, outboard motors, fishing gears, isothermal boxes, ovens for smoking fish, drying trays, boathouses, stores for stocking fishing materials, ice production factories, cold rooms, fishing products transportation means, markets of fishing products etc. This indicator gives an idea of the importance of the economic role of fisheries upstream of the sector although it cannot be compared to the added value.

In addition, the contribution of the sector to national budgets was included as a third component among the national wealth indicators (along with the value added and annual investment). Income from fishing licences (for foreign and national fishers) and taxes on production and on trade are examples of such contributions.

The indicator of *employment* refers to the number of professional fishers and occasional fishers, and other jobs related to fishing and handling of fish. The definition of professional fishers is sometimes subject to discussion, particularly in inland fisheries. In the context of the SFLP methodology, a professional fisher was defined as a person drawing more than half of his/her income from fisheries (Kébé, 1998). Fisher-helpers, as well as people practicing farming and fishing, are also included in this category if more than half of their income is generated by fishing or related activities. A distinction between sedentary professional fishers and migrant professional fishers was made due to the fact that their income and way of living are very different (see Morand, Sy and Breuil, 2005). The occasional fisher (fisher-farmer particularly) may be defined as someone who considers fishing as a temporary activity, seasonal most of the time, complementing his/her main economic activity (e.g. farming). Most of the people practicing farming and fishing are found in this category.

The importance of the fishery sector as a livelihood for West and Central African populations is often appreciated in practice according to statistics on the activity of capture, i.e. the number of boats or the number of fishers strictly speaking. In fact, other fishing related activities are generally not counted since they are buried in the extensive informal sector of African economies. However, there are methods of investigation to assess the importance of jobs upstream and downstream the production. Those jobs refer to domains of activities such as: equipment suppliers, net menders, ice producers, carriers, fish processors, fish wholesalers, haulers, retailers, etc. In practice, emphasis will put on two main categories of other fishing activities, namely processing and trade of fish products. In addition, the SFLP methodology recommended to calculate the total population whose livelihoods depend on the fisheries sector, based on the average size of fishers' household and the number of fishers, e.g.: 7-8 people/household \* X fishers.

*Food security* is defined by the 1996 World Food Summit as “a condition when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (FAO, 2005, p.7). Fish can hence contribute to food security both directly, fish as food, and indirectly by providing income for purchasing food.

The basic food fish availability indicator is estimated from the *apparent availability* of fish and fish products which is calculated from information on domestic production, exports and imports of fish and fish products. It represents the quantity of fish available in the country once exports are subtracted from and imports added to the domestic production. From this the apparent annual consumption per capita i.e. the average quantity of fish consumed per capita (kg/annum) on the basis of calculated fish availability and the population, may be deduced. It is recommended to qualify this average number taking into account disparities in consumption observed according to different areas (rural, urban, production areas, etc.).

The commercial balance of fish products which corresponds to the difference between exports and imports in value was used to assess the degree of connection of the fisheries sector to external markets and the contribution in terms of foreign currency. Foreign currency generated by the fisheries sector could be important for countries to allow them to import necessary food staples.

In addition to these main indicator categories, a set of *other indicators* was developed to appreciate the indirect contribution of the fisheries sector to the economy. According to availability of information, the following complementary indicators were used to assess the contribution of small-scale fisheries to (i) local communities' budgets: market taxes and rights of access to resources (according to the decentralisation process in some cases); (ii) local development and poverty alleviation: impact of fishing on the

development tourism, seasonal jobs (e.g. good fishing season at the end of the dry season) and generation of additional incomes for some of the poorest categories of the population (e.g. young people in activity on wharfs to make a little income, old people in search of unsold products), (iii) protection of environment: traditional management practices of water spaces by the communities and coastline quality control by communities.

Once the type of indicator had been selected, based on relevance and cost-effectiveness, the type of data required to build the indicators were identified. Most of the information needed was provided by national administrations (ministry in charge of fisheries, ministry of planning and statistics, ministry in charge of commerce), research institutes/centers, development projects and NGOs. In some cases, specific studies had to be carried out to complete the data needs (e.g. surveys on costs incurred by fishers, boat owners, processors and traders). Some indicators required more data than others, e.g. the calculation of value added to production was based on annual domestic production, auto-consumption, prices and costs of production (Kébé, 1998; Kébé, 2007).

## **FISHERIES CONTRIBUTION TO NATIONAL ECONOMIES**

### **Case study process**

Following the test in Benin, the SFLP methodology was further developed through case studies in 14 other SFLP participating countries. These studies were conducted in the countries participating in the three pilot projects, i.e. Burkina Faso, Côte d'Ivoire, Ghana and Mali for the first pilot project, Congo, Gabon, Guinea and Mauritania for the second pilot project, and Cameroon, Chad, The Gambia and Senegal for the third pilot project. Two island countries (Cape Verde and Sao Tome and Principe) were also integrated in the analysis to better appreciate the situation in the region.

The major objectives of the analysis were to assess the economic and social contribution of fisheries, and to make recommendations and suggestions to improve the SFLP proposed methodology and the national statistical data collection system of the fisheries sector.

The case studies made it possible to (i) fill in the information and data gaps on the real and potential contribution of fisheries to national economies; (ii) develop a close collaboration between the Fisheries Department and National Accounts Office in each of the countries; and (iii) arouse the interest of decision makers and development partners engaged in poverty reduction programmes in the fisheries sector.

The case studies were conducted in each country by a national team of three experts including an economist specializing in macro-economic analysis, a fisheries specialist of the Department of Fisheries, and a Statistician with the National Accounts Office. The relevance of their findings is buttressed by the connection between these three areas of specialty. This helped to provide a general overview, backed with figures, of all the various activities that are directly or indirectly linked to fisheries. After investigations during 45 working days, a one-day national workshop was organized with the key policy makers to discuss and validate the findings of the study. Then a communication strategy was developed by the SFLP National Coordination Unit (headed by the Fisheries Department) to facilitate a wider dissemination at the national level, particularly for the use of the information generated to influence national policies (see also Chapter 4).

### **Results of the case studies**

The overriding conclusion from the case studies carried out was that the contribution of the fisheries sector is important in West and Central Africa, and varies from country to country. The results of the case studies, according to the main indicators defined

TABLE 3  
How the fisheries contribute to economy (selected examples)

Countries	GDP	Employment	Fish Supply	Fish Trade	Taxes
Congo	Fisheries contributes to 2.75% of GDP and 23.6% of the primary sector	6.8% of the labour force is involved in fisheries 80% to 90% of fish traders are women	Fish consumption averages 25 kg per year per person Fish provides 46% of animal protein	37% of the national fish supply is provided by imports	Taxes are mainly collected from fishing licenses but their contribution is marginal
Ghana	Fisheries contributes to 4.5% of GDP The small-scale sector alone contributes 3.4% of GDP	The livelihood of one in ten Ghanaians depends on fisheries 300,000 people depend on Lake Volta fisheries	Fish consumption averaged 27.2 kg per person in 2003 Fish provides 45% of animal protein	Exports amounted to US\$95 million in 2002, representing 4.74% of total export earnings	Taxes are from fishing licenses and market tolls and represent less than 5% of local revenue
Mali	Fisheries related activities contribute 4-5% of GDP	Fisheries provide 285,000 jobs, of which 70,000 are fishers, and represent 7.2% of the national labour force	Fish consumption averages 5.4 kg per person per year, compared to 4.7 kg for meat	Official exports are marginal; however, 15-20% of the fish traded in Mopti (Niger Central Delta) is exported to other countries in the region	Taxes on added value represent about 10% of the total value
Mauritania	Fisheries sector contributes to 4-5% of GDP and 22% of the primary sector	Small-scale fisheries represent only 10% of fish production, but provide 80% of the jobs	Fish consumption averages 4.3 kg/year but varies regionally – it is 17.1 kg/yr in Nouadhibou and 9.2 kg/yr in Nouakchott	Fish exports represent 70% of total exports, half from small-scale fisheries	From 2000 to 2004, fisheries contributed to 41% of budgetary revenues, mainly through EU fishing agreements (34%)
Sao Tome & Principe	Fisheries contributes to 5.2% of GDP and 19% of the primary sector	Between 1999 and 2002, the number of fishers increased from 3 310 to 5 296 (+60%)	Fish consumption averages 28kg per person per year – well above the world average of 16.3 kg	International fish trade is insignificant	Main source of revenue is the EU fishing agreement providing 600,000 euros per year
Senegal	Fisheries contributes to 4.1% of GDP and 13.7% of the primary sector	600,000 people are employed in the sector, i.e. 17% of the national labour force	Fish consumption averaged 30.8 kg per person in 2003 Fish provides 44% of animal protein	Fisheries are the leading export sector, representing in value 37% of total exports	25% of the value added goes to the state In the fishing commune of Joal, the sector provides 27.5% of the budget revenue

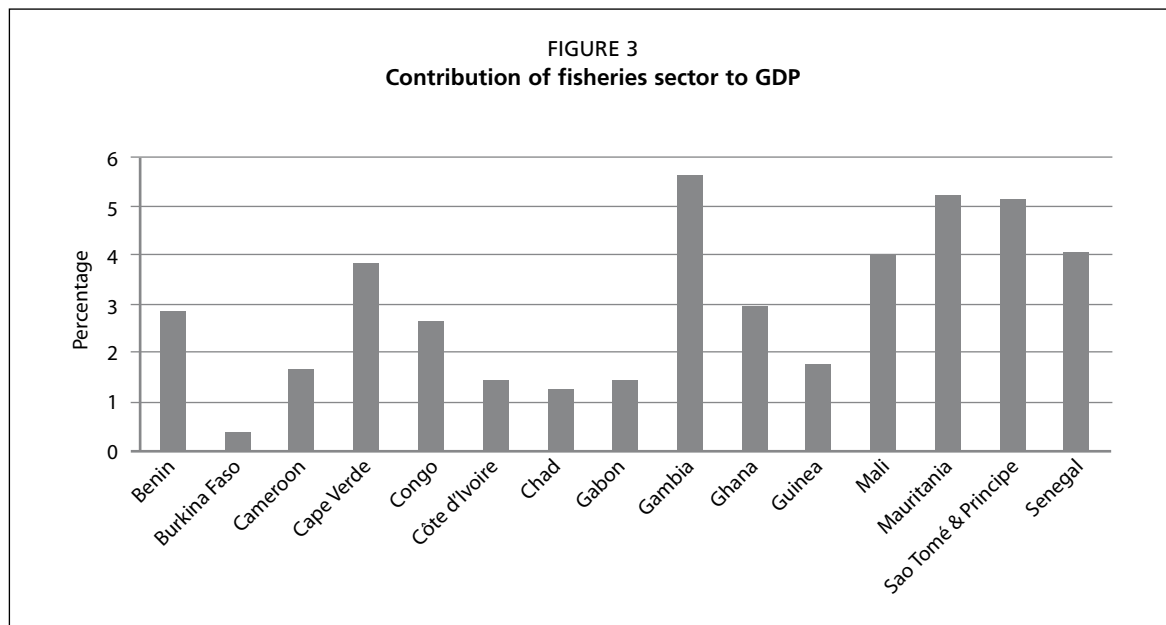
above, are presented below. A summary of the contribution of the fisheries sector to the economies of selected countries is provided in Table 3.

## National wealth

### *Contribution to economic growth*

The value added generated by the fish production subsector alone represents on average only 60 to 70 percent of the total value generated by the sector. The rest (30-40%) is derived from the secondary and tertiary sectors. It appears clearly that fisheries contribute more than what conventional national accounts show and that the contribution of fisheries to the national economy is not currently reflected in the official GDP statistics. By comparing the estimated value added by each of the fisheries subsectors using the SFLP methodology with the estimates from National Accounts data in Ghana, an apparent overall underestimation of the GDP added value created by the fisheries sector of approximately 5 percent was found in 2001 and in 2002. The conventional calculation gave 1 377.5 billion cedis (US\$193 million) in 2001 and 1 655.1 billion cedis in 2002 (US\$232 million) of fisheries sector GDP while the values





Source: Kébé and Tallec, 2006.

calculated with SFLP's methodology were 1 444.8 (US\$202 million) and 1 738.0 billion cedis (US\$243 million), respectively (Sarpong, Quaatey and Harvey, 2005).

The analysis of the results of the case studies on assessment of the contribution of the fisheries sector to national economies also showed that there is unequal development of fisheries activities from one country to another. The percentage of value added credited to the fisheries sector in national GDPs ranged from 0.4 percent (Burkina Faso) to 5.7 percent (see The Gambia).

The countries with the highest percentage are mainly those endowed with a favourable geographic location or vast natural resources. For example, in Cape Verde and São Tomé and Príncipe, two island countries with natural easy access to the sea, the fisheries sector plays a prominent role in the economies. The same goes for the Gambia, entirely located in the Gambia River basin along 470 km from the Atlantic coast inland. In Mali, the water surface of the central delta of the River Niger (over 20 000 km<sup>2</sup>) is greater than the continental shelf in the coastal zone of Benin, Cameroon, Congo, Côte d'Ivoire or the Gambia.

In Mauritania, the vast surface (230 000 km<sup>2</sup>) of the Economic Exclusive Zone (EEZ) is characterized by high biological productivity, translating into an abundance of fishery resources. In spite of the fact that the various fishing licenses have been granted to foreign fishing vessels as part of the fisheries agreement with the European Union, national production is still high. In this country where 90 percent of the national territory is desert land, fishing activities in the EEZ provides an important opportunity for development, also when compared to other primary sector activities (Ould Cheikhna, Guisset and Souëïlim, 2005).

In oil producing countries like Gabon and Congo, the contribution of the fisheries sector to the national economies would seem to be minor, in as much as the rent from oil exploitation accounts for the major part of the national income.

In the economies of some countries (Cameroon, Côte d'Ivoire and Ghana), the contribution of the value added as a percentage of the GDP is marginal, whereas in absolute values, it represents a large volume when compared with other countries involved in the case study process. With a contribution to national economy of 1.7 percent, 1.5 percent and 3 percent, respectively, the artisanal fisheries do not seem to be a key subsector; in absolute values, this subsector contributes three to five times more wealth to these countries than in, for example, Mauritania and Benin (Kébé and Tallec, 2006).

The small-scale fisheries represent the most important of the value added created by the sector in most of countries. In Mauritania about 45 percent of the overall value added is attributed to the small-scale fisheries; it accounts for only 10 percent of production but provides 80 percent of the employment opportunities. The small-scale fisheries sector has developed considerably during recent years (Ould Cheikhna, Guisset and Souëilim, 2005).

In Senegal, the whole added value calculated derived from the small-scale fisheries being the most dynamic subsector and generating 80 percent of total landings and 60 percent of the export volume (2002-2003). The small-scale fisheries provide an important quantity of fresh fish products for export through processing plants and factories. (Dione, Sy and Dia, 2005).

In Gabon where profits from oil are decreasing, the development of small-scale fisheries sector facilitates the diversification of the national economy and helps to create employment, with direct impact on local communities (Mabounda, Ondo Magne and Rarambyath, 2005).

The small-scale fisheries sector is also very important for the local economy in Mali. The ethnic group of *Bozo* has contributed to the development of this sector. The small-scale fishing activity is an important vector of the Malian culture and expertise, representing, among other things, a wide-spread tradition (Dolo, Sako and Diarra, 2005), which, in economic terms, can be thought of as ‘cultural wealth’.

#### *Investments in the fisheries sector*

In Côte d’Ivoire, the availability of data made it possible to study the fisheries investment annual growth rate from 1990–2002. The amount of investments increased at an average annual rate of almost 5 percent. However, investment effort was highest in the first five years of the period at a rate of over 25 percent per annum. From 1996 to 2002, political upheavals probably contributed to the reduction in the annual investment volume in the fisheries sector (Gole Bi, Koffi and Dadi, 2005).

In Burkina Faso, Ghana, Mali and Mauritania, the inventory of investments made in the fisheries sector was at best, only partially carried out. In Mauritania for example, only information on public investments was obtained. It clearly indicated that a survey would first have to be conducted in order to find out the total investments made in the sector.

In Benin, Gabon and Congo the cost of fishing materials brought to light the importance of investments for fishers. Small-scale coastal fishery with motorized canoes requires a total investment of approximately EUR300–350 (US\$450-525), representing an average annual investment of about EUR50 (US\$75) based on an average economic lifespan for equipment of seven years. There was not enough information on fishers’ income, but this annual investment probably represents roughly one month’s salary. In fishing activities, investments account for a substantial part of the fishers’ budget. The development of this activity means being able to mobilize large amounts of capital, and having access to the credit market.

#### *Contribution to national budgets*

The fisheries sector makes some direct, non-negligible contributions to national budgets. The major earnings from the sector are through “fishing rights” or “exploitation rights” or “exploitation license”. Various taxes are paid by traders and benefit usually decentralized administrative structures like the local government or community groups. These include the “tax on value added” or “license tax”, “trading tax”, “local government tax”, “packaging tax”, “phytosanitary tax” or “health clearance certificate”, “import” or “export” taxes, or “port tax” (if shipped by sea). It appeared that the government would generally collect between 5 and 15 percent of

the value added of the fisheries sector in the form of taxes and duties. (Dolo, Sako and Diarra, 2005).

The fisheries sectors of the Gambia and Côte d'Ivoire contribute the most in absolute terms to government earnings among the countries in the region. These revenues represent 4.4 percent and 26 percent, respectively, of the value added. In spite of the fact that the contribution of fisheries to the national budget in Côte d'Ivoire is lower, it has nevertheless increased at an annual rate of 4.5 percent. This performance was probably maintained mainly through the small-scale subsector. In Mauritania, over the 2000–2004 period, earnings from the fisheries sector accounted for more than two thirds (37.6 percent) of the national budget of the country.<sup>7</sup>

### Employment

Direct and indirect employment is an important way in which the fisheries sector contributes to national economies. There are an estimated of 10 million fishers in sub-Saharan Africa, 7 million of which are from West and Central Africa. These are mainly fishers, fish processors and fish traders, but other associated jobs should be added to his figure (FAO, 2006).

The analysis of the results of the case studies revealed that data on employment is the most difficult to obtain, and the most inaccurate. One of the major difficulties is the lack of clear definitions. How do you classify a fish-food caterer who only partly uses fish to cook the food she/he sells? How do you classify a transporter who loads different proportions of fish, cattle, cereals and even people? In addition to these complications there are those related to a lack of standardisation of data collection procedures between the countries covered by the study. The proposed SFLP methodology was eventually not used by all the countries. In Mali, the number of people whose livelihoods depend on the fisheries sector was estimated to 260 000 based on the number of fisher households (33 000) and the average size of a household (7.9 members) as recommended by SFLP. However, it would appear that the studies in Burkina Faso and Côte d'Ivoire did not take all the relevant households into consideration when estimating the total number of people dependent on the fisheries sector when compared to the total population of (1 percent and 0.15 percent, respectively).

Both employment and revenue in the fisheries sector create multiplier effects in other sectors of the economy – highlighting fisheries' importance to national economies as a whole. In Cameroon, an income multiplier indicator, called the social accounting matrix multiplier was created by the National Account Office. The results of a simulation exercise showed that fisheries activities have a strong multiplier effect on revenue (7.3) and therefore a strong “domino effect” on the rest of the economy. This would mean that an investment of CFA francs 1 million in the fishing sector generate additional revenues of CFA francs 7.3 million in the national economy (Ngok, Djamen and Dongmo, 2005). This estimate – derived from the one case study – does however seem high and would need to be confirmed by other wider analyses of the same nature. For comparison the average income multiplier effect for agriculture is between 2 and 3 (Delgado, Hopkins and Kelly, 1998).

### Food security

The analysis of apparent *fish availability per inhabitant* highlighted the countries where the direct contribution of fish to food security is most critical. Burkina Faso, Mali and Benin have less than 10 kg/inhabitant/annum of fish. In contrast, Gabon and Ghana are the highest consumers of fish, with an availability level of 44.1 and 29.7 kg/inhabitant/annum, respectively. Interestingly, fish availability per inhabitant and the

<sup>7</sup> Most of these revenues are made from fishing agreements with the European Union.

Human Development Index (HDI) showed a significant positive relationship between these two sets of data for the 15 SFLP countries covered by the analysis (Kébé and Talleg, 2006).

While fish consumption per capita in Africa is less than half the global average (7.8 kilos vs. 16.3 kilos in 2001) this figure has to be seen in the context of the generally lower total protein consumption in the diets of the African population. Fish provides 18.6% of animal protein in Africa – above the global average of 15.9 percent. In the case of Mali, a landlocked country benefiting from important inland fisheries, average fish consumption is higher than meat, 5.4 kg vs. 4.7 kg per capita in 2001. In countries such as Congo, Côte d'Ivoire, Gabon and Ghana, fish provide almost 50 percent of animal protein needs. It is often more accessible than meat or poultry for the underprivileged populations, particularly those close to fishing areas. From a nutritional perspective, fish products are an important source of food nutrients (protein, poly-unsaturated fat), vitamins (A, B and D), minerals (calcium, phosphate and iron) and trace elements (iodine for sea products).

Fish exports help national economies enter into international markets, particularly in high value segments (crustaceans, cephalopods, demersal fish species). When exports mainly concern high-value fish, this does not necessarily threaten the supply of lower-value fish on local markets. In Senegal, for example, only 15 percent of cheap small pelagic catches are exported (mainly to other African countries) compared to 80, 100 and 95 percent of demersal, cephalopod and shrimp catches, respectively; revenues from fish exports have generally exceeded the value of cereal imports (annual average of US\$275 million and US\$217 million respectively between 1995 and 2003).

When the trade balance in fishery products is positive, as is the case in Senegal, Mauritania and Gabon, the fisheries sector is a net provider of currency to the national economy (Horemans and Kébé, 2006). The fisheries sector can constitute a principal motor of growth in such countries and in this way contributes to underlying economic growth processes in a substantive manner (see also Chapter 4).

Between 2000 and 2003, the difference between fish imports (US\$1.2 billion) and exports (US\$3 billion) in Africa gave an average positive balance of US\$1.8 billion per year making the continent a net exporter of fish products. Overall, as a region, the exports of all the 15 countries studied generate the equivalent of US\$578 million, and imports amount to US\$320 million. The trade balance as a whole is in excess of US\$258 million (Kébé and Talleg, 2006).

Furthermore, it should be noted that better knowledge on the transboundary trade of fish products among African countries would likely show much greater volumes than those actually recorded in trade statistics. This is especially the case in inland fisheries for which data are generally poor. Lack of reliable data at the customs posts of the borders between the countries is likely to contribute to an underestimation of exports from, for example, Chad, Gabon, Ghana and Mali.

Three types of profiles emerged from the fish trade analysis. They include (from Kébé and Talleg, 2006):

1. A dynamic and surplus external trade: countries that were upgrading a large portion of their export products towards one or several specific market segments.
2. A dynamic but deficit external trade: since local demand is high, national production is insufficient.
3. A barely developed external trade: countries that were basically using up their local production, supplemented by small quantities of imported fish, and having an almost zero trade balance.

Profile 1 corresponds to the cases of Senegal, Mauritania and Gabon, as well as Guinea, although with less importance. Given the high added value obtained for

export products, external trade in the fisheries sector injects a large amount of foreign currency into the economies of these countries.

With earnings of almost US\$270 million from fish exports (average for the 2000–2002 period), Senegal is in the first position among the SFLP participating countries. The value of exports of the second highest exporter in the region - Côte d'Ivoire - is less than half of that of Senegal (US\$130 million). Senegal not only has the advantage of having a lot of economic actors capable of exporting large quantities of fish, but it also enjoys a high market value for its fish exports, as in the case of cephalopods (especially octopus on the Chinese market) and demersal species (Dione, Sy and Dia, 2005).

Mauritania also enjoys the advantage of high prices for its cephalopods on the export market. Octopus contributed 56 percent to the total value of fish products exported in 2001. A high proportion of the fishery products exported from Mauritania consists of non processed fish (iced or frozen). An increase of the volume of processed products destined for the export market would improve their market value considerably, and by extension, the total value added of the sector. However, when international demand is for non processed products, as in the case of octopus, it may be difficult to change.

In the case of Gabon, the export of shellfish (shrimps) to Europe represented 78 percent of the total export value in 2001. Asia does not import shellfish from Gabon but is the second largest importer of the country's other fishery products.

Under Profile 2 are four countries - Cameroon, Ghana, Côte d'Ivoire and Congo - with the highest trade deficits among the 15 countries studied. However the four countries represent countries with a relatively high volume of exports, in particular Côte d'Ivoire and Ghana, whose export volumes are higher than that of Mauritania and Gabon. When a comparison was made for the 2000–2002 period, Côte d'Ivoire exported almost twice as much fish products (in terms of value) than Mauritania. The large volume of exports is however offset by the volume of imports.

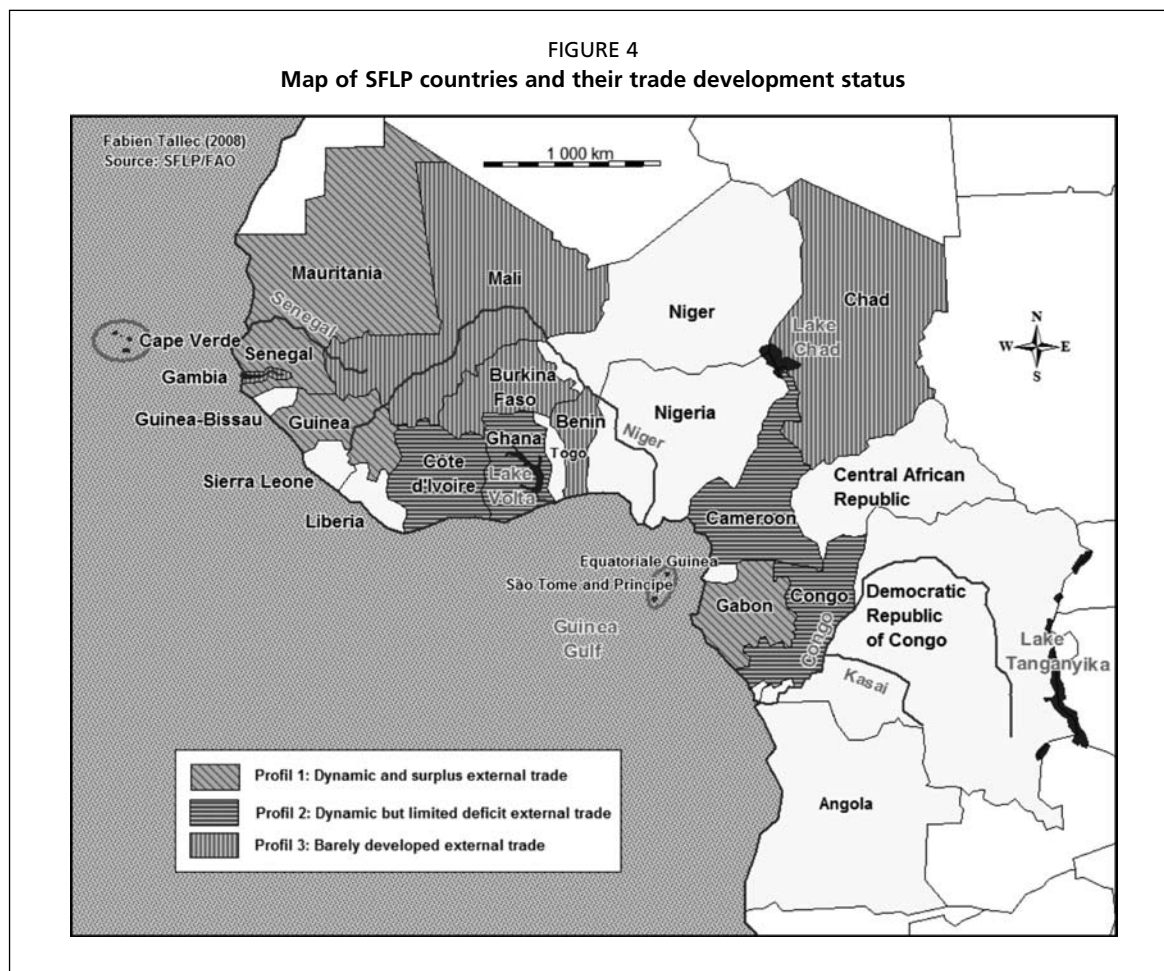
The characteristics of the Congo export market are rather particular and the country appears to belong somewhere in between profile 1 and profile 2. While on the one hand the country basically orients most of its export products towards only one segment of the market (shellfish) like the countries under profile 1, the volume of its fish import results in a trade deficit that is close to that of Côte d'Ivoire which is under the Profile 2.

Profile 3 includes Benin, Burkina Faso, Cape Verde, Chad, Gambia, Mali and São Tomé and Príncipe. External trade is barely developed; the flow of goods (imports or exports) is no more than US\$7 million dollars per annum. These countries are also the ones that have the smallest EEZ in the area studied. Besides, Burkina Faso, Chad and Mali have no access at all to the sea. They do not have saltwater fish which they therefore have to import; this kind of fresh fish is preferred in export markets. In fact, the fisheries production of these countries does not fully meet the demand for fish. The trade balance tends towards negative. Still, fisheries play an important role in other respects in several of these countries, hence illustrating that trade balance data sometimes poorly reflect the relative importance of fisheries. In Mali, for instance, Zwarts *et al.* (2006) have shown that it is economically more sensible to invest in fisheries than in dams for irrigation agriculture.

The map in Figure 4 gives a geographical summary of the Profile 1–3 countries.

## **BEYOND QUANTITATIVE ANALYSIS – POVERTY REDUCTION AND FOOD SECURITY**

The fisheries sector contributes immensely to the livelihood aspirations of millions of people in West and Central Africa. However, an important lesson learned from SFLP work is that the ways fishing activities contribute to household's livelihoods are complex and cannot easily be reduced to basic statistical indicators.



Nevertheless, the case studies and the indicators they produced have been useful in clarifying some of the aspects of the sector's importance. With regard to value added and the contribution of fisheries to national GDP, the work confirms the validity of the sectoral approach that includes all activities along the fish value chain. By including, in addition to fish production, related activities such as fish processing, trade and fish food-catering activities, a more accurate assessment of the sector's economic significance was possible.

The small-scale fisheries sector creates employment. This makes it possible for people in the poorest groups in the communities to earn income on a permanent basis, or occasionally. The fact that this trend is most common in the poorest circles suggests that it contributes directly to poverty alleviation.

The number of people dependent on fisheries in developing countries is estimated at 234 million. However, there are people who are engaged in temporary fishing activities in marine areas and, more typically, inland water bodies that are not included in these estimates (FAO, 2005). For them, fishing may not be a full-time occupation but an activity that complements other livelihood strategies. (Béné, Macfadayen and Allison, 2007).

Fishing is of particular importance to the protein needs of West and Central African people. Fish is the preferred and cheapest source of animal protein and represents a large proportion of the animal protein intake by the African population. Fish products contribute to food security, both directly - by providing animal protein and nutrients - and indirectly, by providing a source of income to both fishers and fish workers, and the state. Many countries rely on the incomes from fish exports to generate the hard currency they desperately need to import food staples for their population. These

TABLE 4  
How the fisheries contribute to economy (selected examples)

Countries	GDP	Employment	Fish Supply	Fish Trade	Taxes
Congo	Fisheries contributes to 2.75% of GDP and 23.6% of the primary sector	6.8% of the labour force is involved in fisheries 80% to 90% of fish traders are women	Fish consumption averages 25 kg per year per person Fish provides 46% of animal protein	37% of the national fish supply is provided by imports	Taxes are mainly collected from fishing licenses but their contribution is marginal
Ghana	Fisheries contributes to 4.5% of GDP The small-scale sector alone contributes 3.4% of GDP	The livelihood of one in ten Ghanaians depends on fisheries 300,000 people depend on Lake Volta fisheries	Fish consumption averaged 27.2 kg per person in 2003 Fish provides 45% of animal protein	Exports amounted to US\$95 million in 2002, representing 4.74% of total export earnings	Taxes are from fishing licenses and market tolls and represent less than 5% of local revenue
Mali	Fisheries related activities contribute 4-5% of GDP	Fisheries provide 285,000 jobs, of which 70,000 are fishers, and represent 7.2% of the national labour force	Fish consumption averages 5.4 kg per person per year, compared to 4.7 kg for meat	Official exports are marginal; however, 15-20% of the fish traded in Mopti (Niger Central Delta) is exported to other countries in the region	Taxes on added value represent about 10% of the total value
Mauritania	Fisheries sector contributes to 4-5% of GDP and 22% of the primary sector	Small-scale fisheries represent only 10% of fish production, but provide 80% of the jobs	Fish consumption averages 4.3 kg/year but varies regionally – it is 17.1 kg/yr in Nouadhibou and 9.2 kg/yr in Nouakchott	Fish exports represent 70% of total exports, half from small-scale fisheries	From 2000 to 2004, fisheries contributed to 41% of budgetary revenues, mainly through EU fishing agreements (34%)
Sao Tome & Principe	Fisheries contributes to 5.2% of GDP and 19% of the primary sector	Between 1999 and 2002, the number of fishers increased from 3 310 to 5 296 (+60%)	Fish consumption averages 28kg per person per year – well above the world average of 16.3 kg	International fish trade is insignificant	Main source of revenue is the EU fishing agreement providing 600,000 euros per year
Senegal	Fisheries contributes to 4.1% of GDP and 13.7% of the primary sector	600,000 people are employed in the sector, i.e. 17% of the national labour force	Fish consumption averaged 30.8 kg per person in 2003 Fish provides 44% of animal protein	Fisheries are the leading export sector, representing in value 37% of total exports	25% of the value added goes to the state In the fishing commune of Joal, the sector provides 27.5% of the budget revenue

Source: FAO, 2006.

multiple roles of the fisheries sector confirm the need to consider the relationships between fishery and national policy on food security.

Fishing and fish processing and trade are also considered as safety-net activities for the poor. It was demonstrated through the case studies that small-scale fisheries contribute to poverty reduction at the household level in West and Central African countries. However, it is recognized that at the present time the most important contribution of small-scale fisheries to poverty alleviation is probably through their role in poverty prevention.<sup>8</sup> It was noted that for the large majority of households

<sup>8</sup> In the general literature, “poverty prevention refers to the role of an economic activity in helping people to maintain a minimum standard of living (even when this minimum standard of living is below a given poverty line) and which prevents them from falling any deeper into destitution (see e.g. Angelsen and Wunger, 2003). Poverty prevention in small-scale fisheries therefore refers to situations where fishing contributes – through various mechanisms – to reduce risks and create safety-net mechanisms in a general context of vulnerability.” In contrast, poverty reduction describes “a situation where people are becoming measurably better off over time due to their involvement/investment in economic activities. Poverty reduction in small-scale fisheries therefore refers to the cases where wealth is generated and capital accumulated through investments made in the fishery, which then helps to lift people out of poverty.” (Béné, 2006, page 11).

involved in the fisheries sector in African countries fishing and related activities do not generate high economic returns but instead help them to sustain their livelihoods and prevent them from falling deeper into deprivation.

As noted by Béné, Macfadayen and Allison (2007), the safety-net dimension of fisheries is of greater importance and relevance to poor and marginalized households – generally those with limited access to land and other resources. The relatively easy and free access to fishing grounds allows poor people to rely more heavily on the local commons' resources to obtain the goods and services they need to sustain their livelihoods, or to gain access to paid employment, in situations of economically or institutionally restricted access to other capital (e.g. financial capital such as credit) or production factors (such as private land).

The fisheries sector offers a lot of opportunities for the social integration of women in trade, processing and food-catering. These activities provide income for those groups considered as the poorest and marginalized. By addressing this issue in assessing the economic and social contribution of the fisheries sector, the important gender dimension was partially taken into consideration through the evaluation of the contribution of the post-harvest subsector. However, it is very important to better understand the gender dimension by including gender sensitive indicators.

The results of the case studies on assessment of the contribution of fisheries to economies are of great interest, as noted by Cunningham and Holleran (2007). In many countries, the case studies have altered the perception of the fisheries sector by showing that its contribution to GDP is greater than appears to be the case in national statistics. Those case studies also have had an impact on the position of the fisheries sector in national accounting systems, and strengthened (and sometimes established) relations between the fisheries administration and that responsible for the production of national accounts. Moreover, they helped to improve the SFLP methodology which has since been adopted in some of the participating countries. The studies were very well received and have been used at the global and national levels. Given this success, it was strongly recommended to investigate the impact that improved fisheries management could be expected to have on the social and economic contribution of fisheries to help decision-makers and donors (Cunningham and Holleran, 2007).

## REFERENCES

- Anon. 2004. *National Accounts of Pakistan. Rebasings from 1980-1981 to 1999-2000. Government of Pakistan. Federal Bureau of Statistics. Statistical Division. Section A. Gross Value Added. Chapter 2. Agricultural Sector. April.*
- Béné C., 2005. Contribution of inland fisheries to rural livelihoods and food security in Africa. In Thieme, M.L., Abell, R.A., Olson, D.M., *et al.*, (eds). *Freshwater Ecoregions of Africa: A conservation assessment*. Island Press, Washington, DC.
- Béné, C., 2006. Small-scale fisheries: assessing their contribution to rural livelihoods in developing countries. *FAO Fisheries Circular*. No.1008. Rome, Food and Agriculture Organization, 46 p.
- Béné, C., Macfadayen G. & Allison, E.H. 2007. Enhancing the contribution of small-scale fisheries to poverty alleviation and food security. *FAO Fisheries Technical Paper* No. 481, FAO, Rome. 125pp.
- Béné, C. & Neiland, A.E. 2003a. Valuing Africa's Inland Fisheries: Overview of Current Methodologies with an Emphasis on Livelihood Analysis. *NAGA, WorldFish Center Quarterly* 26(3): 18-21.
- Béné, C. & Neiland, A.E. 2003b. *Contribution of Inland Fisheries to Rural Livelihoods in Africa: Empirical evidence from the Lake Chad Basin areas*. Paper presented at the Second International Symposium on the Management of Large Rivers for Fisheries: Sustaining livelihoods and biodiversity in the new millennium. Phnom Penh, Cambodia, 11-14 February.



- Cunningham, S. & Holleran, E.** 2007. Final Evaluation of the Sustainable Fisheries Livelihoods Programme (SFLP), GCP/INT/735/UK. Final Report, 2 March 2007. Rome, FAO (unpublished). 78pp.
- Delgado, C., Hopkins, J. & Kelly, V.**, 1998. Agricultural growth linkages in sub-Saharan Africa. IFPRI Research Report No.107, Washington DC: International Food and Policy Research Institute.
- Dione, D., Sy, A.B. & Dia, M.S.Nd.** 2005. *Contribution économique et sociale de la pêche artisanale au Sénégal. October 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 39pp. (available at [www.sflp.org](http://www.sflp.org))
- Dolo, M., Sako, M.A. & Diarra, S.** 2005. *Evaluation de la contribution socio-économique de la pêche au PIB et au développement rural au Mali. June 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 44pp. (available at [www.sflp.org](http://www.sflp.org))
- Dugan, P.** 2005. Fish out of water: competing for water for Africa's Freshwater Ecosystems. In Thieme M. L., Abell R. A. & Olson D. M. *Freshwater Ecoregions of Africa: A conservation assessment*. (pp.128-132). Washington, D.C.: Island Press.
- Emerton, L. & Muramira, E.T.** 1999. *Uganda Biodiversity: Economic Assessment*. Report prepared for the National Environment Management Authority as part of the National Biodiversity Strategy and Action Plan process. IUCN EARO. Nairobi. 57pp. (also available at: [www.cbd.int/doc/external/countries/uganda-eco-assessment-1999-en.pdf](http://www.cbd.int/doc/external/countries/uganda-eco-assessment-1999-en.pdf)).
- FAO.** 2005. Increasing the contribution of small-scale fisheries to poverty alleviation and food security. *FAO Technical Guidelines for Responsible Fisheries*. No. 10. Rome, FAO. 79pp.
- FAO.** 2006. Contribution of fisheries to national economies in West and Central Africa. Policies to increase the wealth generated by small-scale fisheries. *News Directions in Fisheries. A series of Policy Brief on Development Issues*. No. 3. DFID/FAO Sustainable Fisheries Livelihoods Programme (SFLP). 12pp. (also available at [www.sflp.org/briefs/eng/notesynthese.htm](http://www.sflp.org/briefs/eng/notesynthese.htm)).
- Gole Bi, G.G., Koffi, K.J. & Dadi, S.G.** 2005. *Contribution socio-économique de la pêche artisanale en Côte d'Ivoire. June 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 49pp. (available at [www.sflp.org](http://www.sflp.org))
- Heck, S., Béné, C. & Reyes-Gaskin, R.** 2007. Investing in African Fisheries: Building links to the Millennium Development Goals. *Fish and Fisheries* 8 (3): 211-226
- Horemans, B. & Kébé, M.** 2006. *Enhancing the economic contribution of fisheries to West and Central African Nations*. International Institute for Fisheries Economics and Trade (IIFET) 2006 Portsmouth Proceedings. 12pp.
- Houndekon, V., Fagbohoun, L. & Ekue, C.** 2003. *Rôle de la pêche artisanale dans les économies des pays de l'Afrique de l'Ouest : Etude du cas du Bénin. December 2003*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 54pp. (available at [www.sflp.org](http://www.sflp.org))
- Kébé, M.** 1998. Guide méthodologique pour l'étude des coûts et revenus en pêche artisanale en Afrique. Programme for Integrated Development of Artisanal Fisheries in West Africa (IDAF). *Technical Report* No 127. Danida and FAO. Rome, FAO. 32pp.
- Kébé, M.** 2007. *Methodological guidelines for assessing the contribution of fisheries sector to national economies*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document).
- Kébé, M. & Tallec, F.** 2006. *Contribution of fisheries sector to national economies of West and Central Africa*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document).
- Mabounda, D., Ondo Magne, J.J. & Rarambyath, G.A.** 2005. *Evaluation de la contribution de la pêche à l'économie gabonaise. June 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 43pp. (available at [www.sflp.org](http://www.sflp.org))
- Morand, P., Sy, O. I. & Breuil, C.**, 2005. Fishing Livelihoods: successful diversification, or shrinking into poverty? In Wisner B., Toulmin, C. & Chitiga, R. (eds), *Towards a new map of Africa*. (pp.71-96). London: Earthscan.

- Murray, A.** 2003. *Draft Guidelines for the assessment of the contribution of Artisanal Fisheries to the National Economy*. Sustainable Fisheries Livelihoods Programme (SFLP) (unpublished working document).
- Ngok, E., Djamen, D. & Dongmo, J. V.** 2005. *Contribution économique et sociale de la pêche artisanale aux moyens d'existence et à la réduction de la pauvreté au Cameroun. August 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 42pp. (available at [www.sflp.org](http://www.sflp.org))
- Ould Cheikhna, S., Guisset, D. & Ould Soueilim, M.M.** 2005. *Evaluation de la contribution socio-économique de la pêche au PIB et au développement rural en Mauritanie. July 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 50pp. (available at [www.sflp.org](http://www.sflp.org))
- Sarch, M-T. & Allison, E.H.** 2000. *Fluctuating Fisheries in Africa's Inland Waters: Well Adapted Livelihoods, Maladapted Management*. International Institute of Fisheries Economics and Trade (IIFET) Conference Session: Access, Equity and Diversification, Oregon State University.
- Sarpong, D.B., Quatey, S. & Harvey S.** 2005. *The economic and social contribution of fisheries to Gross Domestic Product and rural development in Ghana. March 2005*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 54pp. (available at [www.sflp.org](http://www.sflp.org))
- Thorpe, A., Reid, C., van Anrooy, R. & Brugère, C.** 2005. When fisheries influence national policy-making: an analysis of the national development strategies of major fish-producing nations in the developing world. *Marine Policies* 29, 211-222.
- UNSD.** 2003. *National Accounts: A Practical Introduction. Studies in methods. Series F, No 85. Handbook of National Accounting*. Department of Economic and Social Affairs, Statistics Division. United Nations, New York. 147pp.
- Yaron, G., Moyini Y., Wasike D., Kabi M. & Barungi, M.** 2004. The Role of Environment in Increasing Economic growth and Reducing Poverty in Uganda. *Final Technical Report*. (unpublished DFID report). February 2004.
- Zwarts, L., van Beukering, P., Koné, B., Wymenga, E. & Taylor, D.** 2006. The economic and ecological effects of water management choices in the Upper Niger River: development of decision support methods. *Water Resources Development* 22(1), 135-156.

## 4. Mainstreaming fisheries in development policy

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### INTRODUCTION

Increased international concern over world poverty and food insecurity led to the commitment to the Millennium Development Goals (MDGs) in 2000 and revitalised focus on poverty eradication. Along with rethinking the approaches used for working with rural communities, such as the development of the Sustainable Livelihood Approach (SLA), the need for strengthening local and national planning was recognised and tools for policy development and monitoring progress towards the MDGs were introduced. The International Monetary Fund (IMF) and the World Bank made the preparation and adoption of Poverty Reduction Strategy Papers (PRSP) mandatory for eligible countries wanting to benefit from their debt-relief initiatives. Other World Bank programmes and donors also started to refer to the PRSP and base their country strategies around these national plans. Today, PRSP has become the main strategic planning instrument for poverty eradication in Heavily Indebted Poor Countries (HIPC). In low and middle-income developing countries not qualifying for debt-relief under the HIPC scheme, national planning including poverty reduction initiatives are generally spelled out in National Development Plans (NDPs) (UNDP, 2003; Thorpe, 2005).

Most of the 25 countries participating in SFLP are HIPCs and use PRSP as the main strategic document for poverty related issues. However, following conventional lines of sectoral divisions, fisheries have generally been separate from this development processes. This might imply not only the possible omission of fisheries specific needs and activities in local and national development plans but also a risk for disconnects to overall policies when fisheries sector plans are elaborated.

A key activity of SFLP has been to work with relevant government staff and other stakeholders to increase the understanding of the importance of the fisheries sector and how it needs to be included in local and national poverty reduction plans. At the same time, assistance has been provided to ensure that fisheries policies include reference to the relevant overall poverty context and objectives.

This chapter outlines the arguments for why and how the needs of poor small-scale fishers and fish workers should be addressed explicitly in PRSPs and NDPs. The increased visibility of the fisheries sector at these high-level policy documents is evidence of recognition of the role of the fishing sector in poverty reduction and a chance to benefit from related funds, particularly by getting it into medium-term expenditure frameworks. It gives an account of the achievement of SFLP with regard to influencing the planning process to include the fisheries sector and to ensure a holistic approach, as well as incorporating the principles of FAO Code of Conduct for Responsible Fisheries (hereafter referred to as 'the Code'). The likely livelihood impact is discussed and lessons learned explored with a view to shed light on what future priorities should be. Based on the fact that fishing communities in West and Central Africa are characterized by a high level of poverty/vulnerability, parallel efforts were made by SFLP to get poverty-related objectives into national fisheries sector policy.

### WHY INCLUDE FISHERIES IN PRSPs?

The process of preparing national poverty reduction strategies as initiated and encouraged by the Bretton Woods institutions has been prominent in the strategic planning for poverty eradication in West and Central African countries considered as HIPC. The PRSPs describe the overall policy and planning framework for poverty reduction. These frameworks guide the preparation of government budgets, programmes and policies.

The SFLP experience over the three first years of its lifespan showed that in general the small-scale fisheries sector was not given enough consideration in these national economic and social development policies. Already at the preparatory analytical stage, the poverty assessments used for PRSPs did not explore systematically the main factors affecting poor people's livelihoods as proposed by SLA. This was found to be particularly true for poverty in the fishing communities where in-depth poverty profiling was lacking. The analysis tended to be superficial and the special characteristics of fisher folk households were usually not considered in the poverty diagnosis. This lack of a rigorous methodological approach led to failure to notice the entry points for relevant interventions for improving fishing communities' livelihoods by reducing poverty and vulnerability. The impression given was that the proposed strategic interventions came from a shopping list, characterized by remarkable lack of consideration for fisheries, even in the countries where fishery visibly should accord the sector a certain priority.

As noted in the Chapter 3, the fisheries sector contributes significantly to the economic and social development of the West and Central African countries. The SFLP economic studies particularly demonstrated that some countries have dynamic and surplus external trade. These countries (Senegal, Mauritania and Gabon) were upgrading a large portion of their export products towards one or several specific market segments (Kébé and Tallec, 2006). Given the high added value obtained from export products, external trade in the fisheries sector attracts a large amount of foreign currency into the economy of these countries. Moreover, the livelihoods of hundreds of millions of people depend on the fisheries sector in many of the African countries. The fisheries sector appears as the principal motor of growth in some countries of the region. For the other countries, the sector can still play an important ancillary role in enhancing African growth rates over time through exploitation of under-exploited aquatic resources – where they still exist –, development of aquaculture activities, increasing the value-added created by the sector, and integrating the sector more closely into tourism and coastal-zone management programmes (Thorpe *et al.*, 2004).

Furthermore, fisheries policies were guided by a sectoral approach where emphasis was put on the resource management forgetting that people are the centre of the decision-making process (see Chapter 1). Considering that fishing communities are characterized by a high level of poverty/vulnerability in the region, there is a need to get poverty-related objectives into national fisheries sector policy particularly by promoting responsible fishing and poverty reduction.

For the SFLP all these different factors served as entry points for promoting the explicit inclusion of fisheries in national planning processes, such as PRSPs, and the preparation of sustainable strategies that are well suited to poverty reduction in the small-scale fishing communities of West and Central Africa (Kébé, 2007). Participation is a main guiding principle of PRSP planning and is applied to each step of the process. It is implemented through extensive discussions and consultations on priority issues and appropriate actions with various administrations, public institutions, civil society, socio-professional organizations and external partners. Participation aiming at consensus is required for mobilising the efforts needed to achieve the objectives of the poverty reduction strategy. This also implies that fishing people are – or should be – involved in the whole process (Onibon and Alimi, 2002).

The inclusion of fisheries in PRSPs provides an opportunity for adopting fisheries policies in a more holistic manner, reconciling sustainable resource management with the fight against poverty in fishing communities and contribution of the sector to economic growth. Within the context of SLA, this was one of the major challenges in integrating small-scale fisheries in the PRSP and by extension in improving the consistency of government policies impacting on the sector, mobilizing partners to support the empowerment of communities, and providing an incentive to improve and decompartmentalize fisheries planning.

The various poverty profiles and diagnoses conducted by the SFLP in the fishing communities gave concrete evidence substantiating the endemic nature of poverty within these populations (see Chapter 2) and an argument for inclusion of the fisheries sector in the PRSPs (Thorpe, *et al.*, 2004). The advantage of a better visibility of the fisheries sector in national strategies and policies is that this leads to increasing investment in the sector, both for specific interventions in the fisheries field and in improving access to economic and social basic services, in order to reduce vulnerability of the fishing communities and increase the livelihoods opportunities. A better understanding of the poverty in the fishing communities could help to target these interventions (SFLP, 2005; Kébé, 2007).

## ACHIEVEMENT OF THE SFLP: PROCESS AND RESULTS

### The process

Different initiatives were developed by SFLP to push for the integration of small-scale fisheries communities into the national policies of West and Central African countries, particularly the PRSPs. The process started by exploring the ideas and work done in the past to reduce poverty in the small-scale fisheries sector of the West and Central African region. This exercise was conducted during two subregional workshops on “Small-scale fisheries, poverty and the Code of Conduct for Responsible Fisheries” held in Cotonou in November 2001, with the support of CEMARE (Centre for the Economics and Management of Aquatic Resources) (see Nieland and Béné, 2004). A FAO working group of which the SFLP was a member examined poverty-related issues in small-scale fisheries, and the outcome of this exercise was the publication of a paper in the FAO series on Technical Guidelines for responsible fisheries (see FAO, 2005).

During the next step, entry points were identified with a view to improve the integration of fishing communities in PRSPs by using the SLA guiding principles and by developing partnerships with Fisheries Departments through the SFLP National Coordination Units (NCU) implemented in each SFLP participating country. This approach made it possible to undertake the following activities (Kébé, 2007):

- Compilation of current national poverty reduction papers of the different countries, as well as information on the way fisheries stakeholders have so far been involved in the PRSP process.
- A first analysis of the PRSP process in the region and the linkages that were identified during this process with the problems of poverty reduction in fisheries.
- Collection of information on the place of fisheries in national poverty reduction strategies and how Fisheries Departments participate in the PRSP process, through questionnaire surveys in selected SFLP countries.
- Organization of a Consultation<sup>9</sup> with the support of the FAO Fisheries and Aquaculture Department, to analyze the status of the PRSP process and its

<sup>9</sup> The SFLP participating countries represented in the consultation were: Benin, Congo, Côte d'Ivoire, Gambia, Guinea, Ghana, Liberia, Mauritania, Nigeria, Sao Tome and Principe and Sierra Leone. Each national delegation comprised two higher officials, one of whom represents the Fisheries Planning Department, and the other, the institution responsible for preparing the PRSP.

linkages with poverty reduction efforts in the small-scale fisheries sector in West Africa, and to identify the approaches the SFLP could adopt in providing support to the integration of fisheries in the PRSP (Anon., 2005).

In parallel with these interventions, an important component of capacity building was developed by the SFLP in most of countries through the organization of various training and awareness sessions for the main stakeholders including fishing communities and NCUs within organizational development, strategic planning, literacy, advocacy, lobbying, management of infrastructure, participation in local development etc. to facilitate their participation in the PRSP process.

Moreover, guidelines for the assessment of the contribution of artisanal fisheries to the national economies in West and Central Africa were produced. On this basis, SFLP assisted the countries in obtaining information on the social and economic role of small-scale fisheries (see Chapter 3), and in the lobbying required to ensure that more consideration is given to the sector in national poverty reduction policies. SFLP's work on poverty profiling also provided key information on fishing communities in this respect (see Chapter 2).

National studies and workshops were conducted to support the different stages of the process. The example of Niger illustrates the SFLP course of action taken to facilitate the integration of the fisheries sector in national policies and strategies (Kébé, 2005).

In Niger, SFLP initiated a participatory study on Policies, Institutions, and Processes (PIP) which have an impact on the livelihoods of fishing communities. The result of the study served as the basis for discussion during the national workshop organized to brainstorm on poverty reduction efforts in fisheries. Following the recommendations of this workshop, support was provided to the Fisheries Department to prepare a fisheries and aquaculture subprogramme within the context of the Rural Development Strategy (RDS) of the PRSP.

The fisheries and aquaculture subprogramme was prepared on the basis of participatory diagnosis of the fishing communities' livelihoods, the lessons learned from various SFLP interventions and an in-depth analysis of the four major issues addressed in the RDS of Niger. These are (Kébé, 2005):

- To promote the access of rural populations to economic opportunities in order to create the conditions for sustainable growth.
- To reduce the vulnerability, improve food security, and manage natural resources in a sustainable manner, so as to secure the livelihoods of the rural population.
- To build up the capacities of public institutions, civil society and rural development stakeholders associations in order to improve natural resource management.
- To strengthen horizontal consultation and collaboration at national and regional levels.

The guidelines for the sustainable improvement of the livelihoods of fishing communities defined by the PRSP of Niger were translated into priority actions identified in the fisheries and aquaculture subprogramme. This action plan was discussed and validated by the main stakeholders including representatives of public institutions, fishing communities, civil society and development partners during a national workshop.

The exercise in Niger was completed by the formulation of the Strategy for Fisheries Development which was integrated into the 2006-2011 Medium Term Action Plan adopted by the government. The subprogramme for fisheries and aquaculture, elaborated as part of the RDS, will facilitate the implementation of the Strategy for Fisheries Development. This was an opportunity to include for the first time the fisheries sector in the ongoing PRSP process in Niger. This engagement was facilitated by the importance of the support provided to the national authorities following their

request to make more visible the sector. It provided a good model for similar activities to achieve better sectoral integration in other countries in the region. Congo has adopted the same approach and the process is ongoing.

### **Status of PRSPs before SFLP interventions**

The results of the questionnaire surveys conducted by SFLP at the starting of the process to appreciate the integration of the fisheries sector in the national PRSP process showed that most countries were in the process of implementing interim PRSP (I-PRSP) and at the same time preparing their final PRSP.<sup>10</sup> Some exceptions included Burkina Faso that was at the beginning of the implementation of its final PRSP while Togo and Nigeria were starting the elaboration of their interim PRSPs. With regard to participation of small-scale fisheries stakeholders, responses showed that only in 7 countries out of 13 the authorities of the sector were involved and consultations were organized with fish workers. These countries were Cameroon, The Gambia, Ghana, Mali, Mauritania, Nigeria and Sierra Leone (Onibon and Alimi, 2002). However, also in these countries, little attention was given to poverty in the fishing communities during the diagnosis analysis as well as when identifying strategic orientations and priority actions. The needs and aspirations of the fishing communities were not taken into account even the main stakeholders of the sector were involved in the process.

It was possible to distinguish four categories of countries, according to the importance given to the fisheries sector in the PRSPs. It appeared that in most of the countries the fisheries sector was almost completely absent in the PRSPs, i.e. in Burkina Faso, Chad, Congo, The Gambia, Mali, Niger, Sierra Leone and Togo. For another group of five countries – i.e. Benin, Cape Verde, Cameroon, Côte d'Ivoire and Nigeria – fisheries was mentioned only in relation with another sector as agriculture or water, without any specific importance. Priority was given to fisheries in only a few countries, in Guinea, Mauritania and Senegal, as well as in Ghana although to a lesser extent. In Ghana, poverty issues relating to fish workers were the main subject of an in-depth diagnosis and specific strategic orientations as well as priority actions were included in the PRSP (Onibon and Alimi, 2002).

Table 5 gives an overview of which stage of the PRSP process different countries were in at the time of the SFLP survey and what support needs were identified with regard to the improved integration of fisheries.

### **Mainstreaming the fisheries sector in national poverty reduction policies**

The SFLP process described above contributed to a significant positive change in how the fisheries sector was treated in PRSPs in the region. Although not all the support needs and suggested actions identified in Table 1 have yet been addressed, the inclusion of the sector in the national development planning process was improved in most SFPL participating countries. This was particularly the case in Burkina Faso, Cameroon, Chad, Congo, Gabon, Gambia, Guinea, Mauritania and Niger. Some examples of successful mainstreaming outcomes are given in Box 4.

The more important elements and lessons learned from the mainstreaming exercise include (Holvoet, 2007; Kébé, 2007; Konan, 2007; Ndenn, 2007; Njock, 2007):

<sup>10</sup> An interim PRSP (I-PRSP) summarizes the current knowledge and analysis of a country's poverty situation, describes the existing poverty reduction strategy, and lays out the process for producing a fully developed PRSP (final PRSP) in a participatory fashion. I-PRSP includes among others: (i) commitment of government to reduce poverty, (ii) a brief diagnosis of poverty and strategies identified by government to face it, (iii) a timeframe and a procedure of PRSP elaboration, (iv) a 3-year policy matrix and a macro-economic frame (provisory). According to World Bank, the final PRSP should comprise the 5 following elements: (i) assessment and poverty and main determining factors, (ii) definition of poverty reduction objectives, (iii) prioritization of public actions to reduce poverty, (iv) set up of systematic monitoring of poverty tendencies and evaluation of impact of government programmes and actions, (v) description of major aspects of the participative process.

TABLE 5  
Steps in the PRSP process and needs for support (2002)

Steps in the process	Countries	Probable date	Needs for support
'Step 1' Ongoing elaboration of PRSP: starting of the process	Nigeria	2002	Refinement of the mechanisms of representation of fisheries departments and fish workers in the PRSP process  Elaboration of documents on fisheries sector as inputs to PRSPs  Integration of the fisheries sector in the medium-term framework expenditures and annual programme-budgets  Elaboration and implementation of the sectoral poverty reduction strategy for the fisheries
	Sierra Leone	2002	
	Togo	2002-2003	
'Step 2' PRSP process almost ended	Benin	June 2002	Integration of the fisheries sector in the medium-term framework expenditures and annual programme-budgets  Elaboration and implementation of the sectoral poverty reduction strategy for the fisheries
	Chad	2001	
	Congo	2002	
	Côte d'Ivoire	2002	
	Ghana	January 2002	
'Step 3' PRSP Implementation launched	Burkina Faso	Since 2000	Adjustment of the medium-term framework expenditures and annual programme-budgets  Elaboration and implementation of the sectoral poverty reduction strategy for the fisheries
	Cameroon	November 2001	
	Mali	2002	
	Mauritania	2001	
	Niger	2002	
	Senegal	2002	
'Step 4' Transition between the end of a phase and the preparation of a new phase of PRSP	Cape Verde	2002	Refinement of the mechanisms of representation of fisheries departments and fish workers in the PRSP process  Elaboration of documents on fisheries sector as inputs to PRSPs  Elaboration and implementation of the sectoral poverty reduction strategy for fisheries.
	The Gambia	2002	
	Guinea	July 2002	

Source: Onibon and Alimi, 2002.

- The economic assessments and fishing community poverty profiles conducted by SFLP generated more realistic information on the importance of the fisheries sector in terms of employment, incomes, food security and safety net. This information generated renewed interest in the sector and a concomitant uplifting of its status in the PRSPs.
- The development of appropriate communication strategies in some countries facilitated a wide dissemination of the results of the various studies and the mainstreaming of the fisheries sector in national policies. Advocacy work done by the NCUs and Fisheries Departments through generation and dissemination of information on the sector, resulted in more visibility of the sector and led to its integration into national PRSPs.
- The creation or reinforcement of community-based organizations and national umbrella organizations, and various training received contributed widely to improving the negotiation capacities of the fishing communities. This made it possible for them to participate actively in the PRSP process, especially in the phase dedicated to incorporating their needs and aspirations in national poverty reduction policies.



## BOX 4

**Successful mainstreaming outcomes**

In Niger a Fisheries and Aquaculture Sector Sub-Programme (FASP) was prepared as part of the Rural Development Strategy of the PRSP. This Subprogramme will facilitate the implementation of the strategy for developing the fisheries subsector, an integral part of the medium term action plan (MTAP) 2006–2011 resulting from a sectoral consultation on the environment and desertification control. This development was possible thanks to efforts by the National Coordination Unit and a leap in visibility from a marginalized sector to one with a significant role in poverty reduction. The strategy was adopted and will potentially benefit the sector through financial support to implement an action plan for reducing poverty and improving sustainable fisheries management. The factors of success are diverse but include time and effort spent raising awareness of partners through discussions and national workshops. It was important to have data and evidence of the contribution of fisheries to the economy to convince partners. Interventions at the community level were also vital in providing an understanding of the characteristics of poverty, vulnerability and gender relations on which to base a realistic strategy and using this to inform partners.

The interventions included in the FASP, corresponding to selected components of the Rural Development Strategy of the PRSP, are the following (Holvoet, 2007; Kébé, 2007):

**Component 1:** Fisheries development/enhancement and river based fisheries

- Concertation and collaboration between fingerlings production at government managed stations and small producers;
- Study of the fisheries chain, restitution to all stakeholders and priorities and plans established with stakeholders (taking into account different categories of poor).

**Component 3:** Technology transfer and research development to increase economy of fisheries

- Training of staff of research institutions on participatory approaches;
- Analysis of investment capacity of actors and discussion with communities on appropriate technology;
- Participatory action research with restitution of results to micro-finance institutions.

**Component 4:** Diversification of livelihoods

- Gender analysis and identification of income generated activities;
- Gender analysis to inform micro-finance institutions to adapt products.

**Component 6:** Capacity building for institutions and for community organizations contributing to improved sector management

- Production of a functional literacy curriculum for the fisheries sector;
- Gender analysis on the subject of natural resources management and concessions and taking into account gender concerns in the elaboration fisheries plans;
- Training and establishment of female regional organizations;
- Extension of the Code of Conduct for Responsible Fisheries;
- Strengthening of data collection on the sector using experience from Chad basin.

In Congo and Mauritania, the assessment of the contribution of fisheries to national economy was completed by other studies to prepare respectively ‘a sectoral strategy for poverty reduction for eradication’ and ‘a national strategy for sustainable fisheries development (2006–2008)’. The results of the study in Congo were taken into account for the second Poverty Reduction Strategy Paper (PRSP2) in preparation and in which fisheries is considered as a motor of growth that could help to fight against poverty in rural areas. The national strategy for sustainable fisheries development of Mauritania included, for the first time, the principle of promoting fishing community participation in sustainable management of fisheries resources (Njock, 2007).

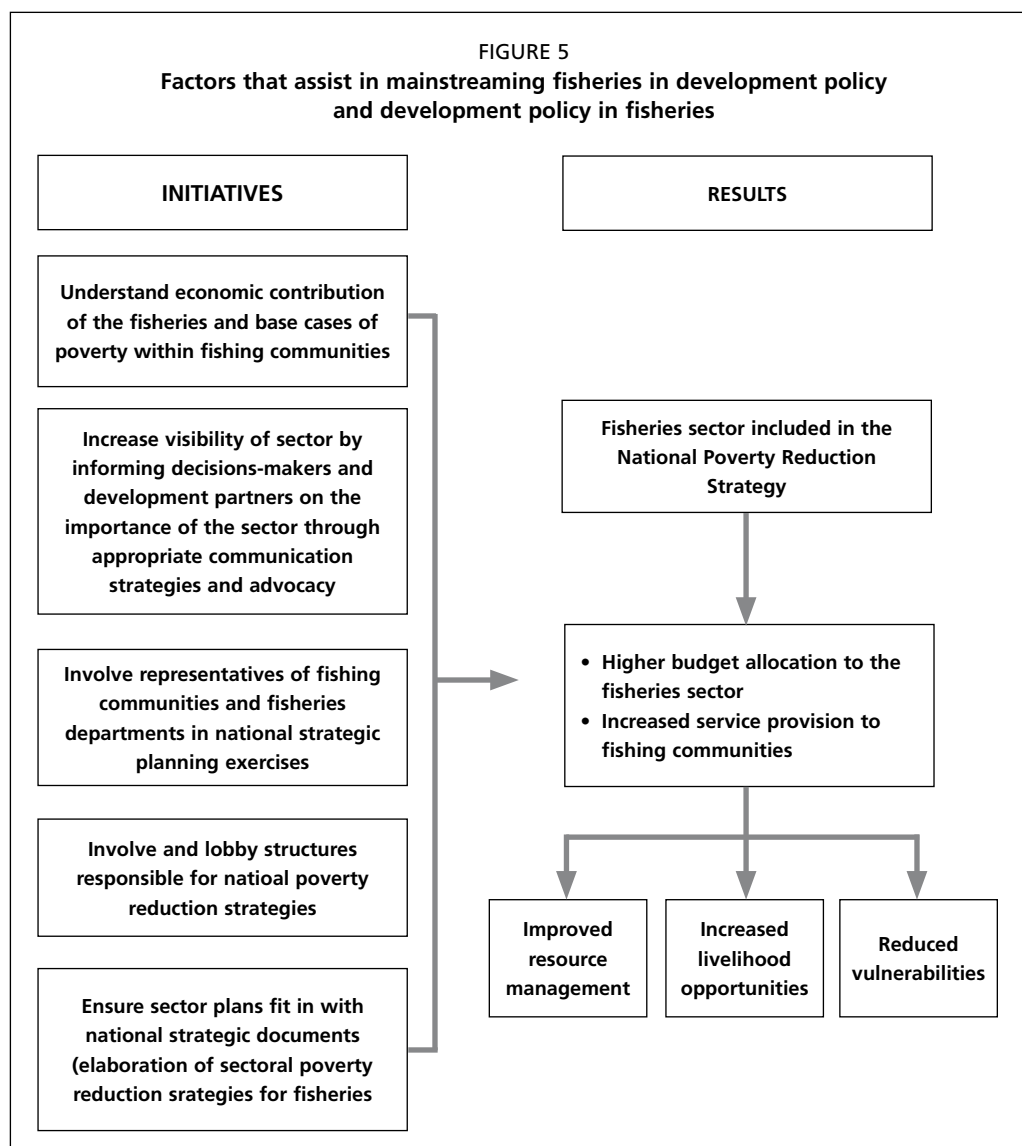
- Emphasis on PIPs and micro-macro linkages providing information from field level poverty profiles and SFLP interventions to the attention of policy and decision makers triggered changes in favour of the small-scale fisheries sector. For example, in Guinea, the SFLP contributed to the integration of fisheries into the finalized PRSP, in particular in the field of participatory Monitoring, Control and Surveillance (MCS) in fisheries. The various SFLP interventions helped to set up legal and institutionalised mechanisms for participatory surveillance, improve collaboration between the different institutions involved in the national MCS system and generate relevant information on the importance of the conflicts and accidents at sea (Holvoet, 2007; Njock 2007).
- The increased recognition of the fisheries sector influenced and improved data collection mechanisms. An example is the incorporation of ten additional artisanal fishing enumeration areas, the primary sampling unit, in the Sierra Leone Integrated Household Survey (SLIHS) - with fifteen households per enumeration area. SLIHS provided information for the national PRSP planning, implementation and monitoring. Such data helped to prepare the national fishery policy and contributed to a better integration of fisheries in PRSP and to the eligibility of fisheries to PRSP related funds.

Compared to the situation of the countries in 2002 (see Table 4), many efforts were made by SFLP to provide appropriate support to selected countries to improve the degree of inclusion of the fisheries sector in PRSPs. The generation of information on (i) poverty profiling in the fishing communities; (ii) the economic and social role of small-scale fisheries; (iii) the importance of post-harvest issues; and (iv) the impact of Policies, Institutions and Processes (PIPs) has contributed to a best visibility of the sector in PRSPs. In 2008 the fisheries sector can be considered as part of PRSPs in most of SFLP participating countries; specific strategic orientations and priority actions for the fisheries sector are included in PRSPs. It is the case particularly for Benin, Burkina Faso, Cameroon, Chad, Congo, Côte d'Ivoire, The Gambia, Mali and Niger. In other countries like Congo, Niger and Sierra Leone sectoral poverty reduction strategies for fisheries were prepared and will be implemented. In addition, the priority given to the sector in Guinea, Mauritania and Senegal since 2002 was reinforced during the preparation of new phases of PRSPs.

#### **FROM PRSP TO LIVELIHOOD IMPACT**

Integrating the fisheries sector into national policies and strategies has been a key success of SFLP initiatives across West and Central Africa. Generation and distribution of strategic information on the sector particularly data on poverty profiling in the fishing communities and contribution of the fisheries sector to the national economy helped to increase the visibility of the sector in national strategies. In many countries the national views of the fishing sector have changed, the relevant government authorities and other stakeholders better understand the importance of the sector and its potential contribution to poverty reduction and food security in the country.

This improved visibility of the fisheries sector in national strategies led to increased capital flow for the benefit of the sector, both for specific interventions in the fisheries sector, and for the provision of basic social services to the communities. This is of vital importance in improving the fishing communities' livelihoods by reducing the vulnerability of fishing communities and in increasing the opportunities provided through better basic social services like water, health, education, transport, etc. In some countries fisheries benefited from the HIPC Initiative in the form of projects aimed at the sustainable livelihoods improvement of selected fishing communities. For example, two fisheries project proposals were funded in Cameroon for CFA francs 1.6 billion, approximately US\$3million.



In addition to support to better integrate the fisheries sector into PRSP, SFLP developed linkages between the fisheries and various other national policies such as food security, HIV/AIDS, microfinance and literacy, ensuring that the fishing communities receive necessary attention (see also Chapters 7 and 9). It appeared clearly that integration of the fisheries sector in national policies and strategies is crucial for building partnerships and establishing the necessary national awareness to catalyse integration of fisheries communities in local development and decentralisation processes. The fisheries departments should be investing in lobbying and advocacy and use every opportunity to make the sector more visible. The preparation and implementation of a well adapted communication strategy, as well as the production of information and communication (IC) materials probably facilitated the lobbying exercise (see also Chapter 8).

The importance of the current and potential contribution of small-scale fisheries for achieving poverty reduction and food security is the principal factor of mainstreaming the sector in development policies. The fishery sector is dynamic and reactive to its local, national and international environment. To sustain this successful integration it is necessary to guide policy formulation by identifying the role that the fisheries sector can play in poverty reduction, food security and economic growth, and ensuring a fair representation of the fisheries sector in poverty reduction strategies at macro (national),

meso (departmental/district/regional) and micro (local) levels. Particularly the impact that improved fisheries management could be expected to have on the contribution of the sector to national economy should be investigated (Horemans and Kébé, 2006). The elaboration and implementation of a sectoral poverty reduction strategy for the fisheries sector in each country would facilitate this task to ensure both the inclusion of fisheries specific needs and activities in local and national development plans, and the connection to overall policies.

The main factors that contributed to the successful integration of the fisheries sector in the national policies and strategies are illustrated in Figure 5 (see p.64).

## REFERENCES

- Anon. 2002. *Rapport de la consultation sur la prise en compte des pêches artisanales dans les politiques de réduction de la pauvreté en Afrique de l'Ouest*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 33pp.
- FAO. 2005. Increasing the contribution of small-scale fisheries to poverty alleviation and food security. *FAO Technical Guidelines for Responsible Fisheries. No. 10*. Rome, FAO. 79pp.
- Holvoet, K. 2007. *Lessons learned from Community and Institutional Support projects: Internal evaluation 2000-2006*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 121pp (available at [www.sflp.org](http://www.sflp.org)).
- Horemans, B. & Kébé, M. 2006. *Enhancing the economic contribution of fisheries to West and Central African Nations*. International Institute for Fisheries Economics and Trade (IIFET) 2006 Portsmouth Proceedings. 12pp.
- Kébé, M. 2005. Niger: Fight against poverty - fisheries and aquaculture integrated in the PRSP. *Liaison Bulletin* (17-18): 36-38. Cotonou, Benin, Sustainable Fisheries Livelihoods Programme (SFLP) (also available at [www.sflp.org](http://www.sflp.org)).
- Kébé, M. 2007. Integration of the fisheries sector. *Liaison Bulletin* (23): 23-26. Cotonou, Benin, Sustainable Fisheries Livelihoods Programme (SFLP) (also available at [www.sflp.org](http://www.sflp.org)).
- Kébé, M. and Tallec, F. 2006. *Evaluation de la contribution du secteur des pêches à l'économie nationale en Afrique de l'Ouest et du Centre*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 29pp. (available at [www.sflp.org](http://www.sflp.org))
- Konan, A. 2007. *Amélioration de l'environnement politique et institutionnel pour le développement des systèmes de gestion en pêche continentale au Burkina Faso, au Mali, en Côte d'Ivoire et au Ghana. Pilot Project Terminal Report*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 53pp. (available at [www.sflp.org](http://www.sflp.org))
- Ndenn, J. 2007. *Improved Livelihoods in Post-harvest Fisheries in Cameroon, Chad, the Gambia and Senegal. Pilot Project Terminal Report*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 15pp. (available at [www.sflp.org](http://www.sflp.org))
- Neiland, A.E. & Béné, C. (eds) 2004. *Poverty and Small-Scale Fisheries in West Africa*. FAO and Kluwer Academic Publishers. 252pp.
- Njock J.C. 2007. *Aménagement participatif des pêches en zone côtière au Congo, au Gabon, en Guinée et en Mauritanie. Pilot Project Terminal Report*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 37pp. (available at [www.sflp.org](http://www.sflp.org))
- Onibon, F.A. & Alimi R.M. 2002. *Analyse de la prise en compte des la pêche dans les Documents de réduction de la pauvreté (DSRP) des pays appuyés par le PMEDP. Octobre 2002*. Rapport. Cotonou, Benin Groupe Afriturible International. 63pp.
- SFLP. 2002. *Prise en compte des pêches artisanales dans les politiques de réduction de la pauvreté*. Rapport de la consultation, Cotonou, 12-14 novembre 2002. 21p.
- SFLP. 2005. *Synthesis of lessons learned*. Sustainable Fisheries Livelihoods Programme (SFLP) workshop report. Dakar, Senegal 21-25 November 2005. 25pp. (available at [www.sflp.org](http://www.sflp.org))

- Thorpe, A.** 2005, Mainstreaming Fisheries into National Development and Poverty Reduction Strategies: Current Situation and Opportunities, *FAO Fisheries Circular* No. 977, Rome, FAO. 121pp.
- Thorpe, A., Reid, C., Van Anrooy, R., & Brugère, C.** 2004. African poverty reduction strategy programmes and the fisheries sector: current situation and opportunities. *African Development Review*, 16(2): 328-362.
- UNDP.** 2003. Millennium Development Goals: A Compact among Nations to End Human Poverty, *Human Development Report 2003*, UNDP, New York. (available at [hdr.undp.org/en/media/hdr03\\_complete.pdf](http://hdr.undp.org/en/media/hdr03_complete.pdf))

## 5. Institutional innovations in fisheries co-management

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### INTRODUCTION

The concept of fisheries co-management has evolved based on a number of ideas in development studies and natural resource management, including participatory development, empowerment and relevance of indigenous knowledge and traditional systems. It has also been supported by recent general policies of decentralisation and devolution of rights and can be seen as a response to the perceived crisis in world fisheries, acknowledging the often common failure of central management regimes and a need to search for new forms for fisheries governance (Allison and Badjeck, 2004).

Co-management – in essence meaning that the responsibility and function of managing a natural resource based activity such as fisheries is shared among the government, resource users and other stakeholders<sup>11</sup> – can take a number of forms ranging from arrangements where resource users are involved in implementing government management decisions to delegation of the decision making authority to fishers and other stakeholders. While the exact specificities of a particular co-management arrangement will depend on the local context, successful outcomes are more likely when the latter more narrow definition is applied, i.e. involving decentralised decision-making and shared responsibilities (Arthur and Howard, 2005; Arthur, 2005). The benefits that all actors in co-management strive to achieve are “more appropriate, more efficient and more equitable management” (Pomeroy and Berkes, 1997).

The Code of Conduct for Responsible Fisheries (from here on referred to as ‘the Code’) supports the principles underlying co-management. In the Code and its technical guidelines, institutional structures and processes required for successful fisheries management are described and include the need for appropriate legislation, principles of transparent and participatory management, processes for developing fisheries management plans, administrative structures and monitoring, control and surveillance (MCS).

In practice, co-management arrangements are often conceived either based on a desire of fisheries departments to improve efficiency and reduce costs or as a response to reduced resources due to poor property rights, and the perception that this is a main cause of poverty (Pomeroy and Berkes, 1997; Lowry, Pallewatte and Dainis, 1999).

Experience from around the world shows that the following conditions are important to successful fisheries co-management (adapted from APFIC/FAO, 2005 and Allison and Badjeck, 2004):

<sup>11</sup> Jentoft (2003, p.3) defines co-management as “a collaborative and participatory process of regulatory decision-making between representatives of user-groups, government agencies, research institutions, and other stakeholders”.

1. An enabling policy and legal framework, and continued government support;
2. Effective institutions and linkages;
3. Real participation by resource users and other stakeholders, avoiding elite capture and exclusion of minority groups;
4. Incentives for individuals to participate.

In the Central Africa region, co-management arrangements have been successfully used in forestry (Nguingui, 2004) but there are no well-documented fishery examples. In West Africa, on the other hand, there are several examples including some of the earliest fisheries co-management arrangements in the world (Sverdrup-Jensen and Raakjær Nielsen, 1998). The Aby lagoon case in Côte d'Ivoire is the best-known example of co-management in the region, and has been reported on by many authors (Konan, 1999; Kponhassia and Konan, 1997; Njifonjou, Satia and Konan, 2005; Horemans and Jallow, 1998). Other cases are cited in Benin, Senegal and the Gambia (Njie and Mikkola, 2001). In most of these cases, Sverdrup-Jensen and Raakjær Nielsen (1998) argue, co-management was (and perhaps remains) government-based, and user groups are not given the necessary authority through enabling legislation, such that the co-management principle has not been formally institutionalized.

Earlier co-management attempts in the region – and indeed most co-management programmes worldwide – were focused entirely on improving fish-stock management, with the assumption that poverty could be reduced solely or primarily by improving the state of fish resources. This inevitably required people to collectively participate in reducing their own fishing activities, involving short-term costs, without offering any form of interim or collateral benefits. Thus, of the four enabling conditions identified above, incentives were not factored in, except in the form of the 'deferred gratification' of presumed future benefits from higher fish catches and more secure community-based aquatic property rights. In the context of poverty and high levels of vulnerability, where the future may be heavily discounted, this has often proven insufficient incentive to gain the cooperation of communities (Allison and Badjeck, 2004).

The SFLP approach was instead based on embedding the need for fisheries management in a wider development context, recognising that collective-action institutions for resource management could also be used to mobilize finance and services in support of other aspects of peoples' lives besides resource management. The SFLP implemented two subregional pilot projects on fisheries co-management, one in inland waters (Burkina Faso, Côte d'Ivoire, Mali and Ghana) and one in the marine coastal area (Congo, Gabon, Guinea and Mauritania). This chapter gives an account of the experience from these activities, confirming the importance of the four enabling conditions mentioned above. It explains the SFLP approach to co-management, incorporating broader development functions and giving priority to an enabling legal framework and appropriate institutions, and shows how co-management can be effective and sustainable in the context of poverty (Konan, Njock and Allison, 2006).

This chapter begins with a brief overview of the two Pilot Projects. This is followed by an analysis of the role of policy and legal frameworks related to fisheries co-management. The SFLP experience of building effective institutions and linkages for co-management is presented next, followed by discussions on participation and incentives in the poverty context. The chapter ends with a summary of lessons learned for the design of future co-management programmes.

#### **SFLP PILOT PROJECTS – RATIONALE AND PROJECT FORMULATION PROCESS**

The formulation process, rationale, components and objectives of the two Pilot Projects were based on the co-management strategy (SFLP, 2003; SFLP, 2004), which has been described in detail by Konan, Njock and Allison (2006). Parts of the present chapter draw on this work, as well as on the final reports of the two Pilot Projects (Konan, 2007; Njock, 2007). The two pilot projects were implemented in eight of the countries

TABLE 6  
**Characteristics of the two pilot projects**

Characteristics	Pilot project in inland waters	Pilot project in coastal waters
Types of species exploited	Endemic, low species diversity	Migratory, multispecies
Scale (size) and characteristics of the waterbody and ecosystem consideration	Artificial lake: well delineated and easier to manage exclusivity over a resource: no competition with industrial vessels	Vast coastlines: difficulty to define the boundaries of the area to be managed (other than by national boundaries). difficulty to implement MCS, which encourages free and open access to the resources competition over the resources by many exploitation strategies including industrial vessels
Actors (human resources)	Mostly nationals	Dominated by migrants: often mobile and more vulnerable
Opportunities for livelihood diversification	Agriculture Livestock	Agriculture limited; in general scarce opportunities to diversify livelihoods, except in more urbanised areas

covered by SFLP in both inland and coastal fishing communities. The Pilot Project implemented in inland waters from February 2003 to March 2006 covered artificial lakes in Burkina Faso (the Bagré and Kompienga dams), Côte d'Ivoire (Lake Kossou), Ghana (Volta Lake) and Mali (Lake Sélingué). The coastal waters pilot project, the implementation of which covered the period running from April 2004 to March 2006, concerned the Congolese coast, and parts of the maritime coast of Gabon, Guinea and Mauritania (see map in Chapter 1). While the two pilot projects had the same objectives and applied similar approaches, it should be recognised that there are important differences between marine fisheries and the inland water sector. Both projects were set in two different environments with regard to the nature of the fisheries, the ecology of the systems, the sizes of the waterbodies, the human resources available and the structure of people's livelihoods (see Table 6). Because of these specificities, the approach used in the implementation of the projects differed slightly.

The overall strategy applied by the Pilot projects was to promote improved resource management in conjunction with a development support process. As well as ensuring the sustainability of fishery resources in the lakes and coastal zones, a key objective of the two pilot projects was to contribute to poverty reduction in fishing communities. A co-management based approach was developed on the basis of the SLA analytical framework to assess and address the multiple dimensions of poverty in fishing communities and the principles of the Code, to ensure management actions were compatible with responsible fisheries principles.

The pilot projects' objectives were to be achieved, in a participatory way, through the promotion of a conducive policy and institutional environment for the communities within the framework of the on-going decentralisation processes and by granting powers to the communities both for the management of natural resources and for local development. (SFLP, 2005; Allison and Horemans, 2006). The pilot projects also worked at the national level to influence key policy and legal processes that could enable the required changes in local-level resource management and poverty reduction programmes and help build coherence between national fisheries policies and key development policies such as national Poverty Reduction Strategy Papers (PRSPs) (see also Chapter 4). Moreover, when building institutions for fishery co-management, it was recognised that these needed to have local development functions as well as resource management responsibilities, if they were to overcome the problem of a lack of short-term incentives to participate. To effectively address poverty, participation of all socio-



professional groups was required, including vulnerable and marginalised groups. The SFLP approach to co-management thus attempted to explicitly incorporate micro-level participatory diagnostic processes to identify the nature of poverty and deprivation in fishing communities (Djangone *et al.*, 2003; Konan *et al.*, 2003; N'dia *et al.*, 2003; Wane *et al.*, 2003) and also to help develop the capacity of meso-level institutions to address these issues. By doing so, incentives for local communities to engage in co-management and responsible fisheries were created.

### **BUILDING AN ENABLING POLICY AND LEGAL FRAMEWORK**

Since the advent of 'modern' fisheries resource management in Africa, in the 1950s, the centralised management of natural resources has been concentrated on decision-making powers in the hands of the government. Recent developments in policy and institutional frameworks have promoted responsibility-sharing between all the partners in general, and between fishing communities and government agencies in particular. The mandate for participation of the users of the resources has now been incorporated into national policies and legislative and regulatory frameworks in many countries around the world. In spite of the fact that the lakes and coastal waters remain the property of the State, room has been made for fishing communities to participate in decision-making creating a basic foundation for co-management. A large amount of the work published on co-management stresses the role of governments in supporting this form of governance (Pomeroy, 1995; Pomeroy and Berkes, 1997; Pomeroy *et al.*, 2001; Fleishman, 2006). This mainly relates to the provision of a supportive legislation and policy framework that defines and clarifies rights, rules and responsibilities of different partners, creates legitimacy and guarantees sustainability for co-management arrangements. Pomeroy and Berkes (1997) argue that one means of establishing these conditions is through decentralisation.

Since the end of the 1980s and the early years of the 1990s, many West and Central African countries have been involved in decentralisation. The idea behind this form of governance is that local administrations and authorities are better placed than the central government to identify and respond to the needs of the local communities and that it is the beneficiaries of government services (including the rule of law, rights to participate, the provision of infrastructure and services) who are best placed to identify local priorities and to hold local officials accountable in the use of public resources. For this to be achieved, governments have to put in place appropriate capacity and systems for implementation, including the institutional and legal framework and supportive regulations and guidelines to facilitate the process at the central, intermediary and local levels (Bonnal and Rossi, 2006).<sup>12</sup> All these initiatives relate to how to approach and handle poverty reduction and service provision to fishing communities in a development context. In addressing these issues in its studies, reviews and interventions, SFLP also incorporated consideration of environmental entitlements (including rights to land and water), equity concerns (including gender equity) and the mechanisms generating social exclusion (including conflict between migrants and residents). This process was conducted together with the setting up and the implementation of poverty alleviation policies with the support of many partners, through Poverty Reduction Strategy Papers (PRSPs). Within the SFLP context, Bonnal and Rossi developed guidelines on decentralisation with the collaboration of national partners from Burkina Faso, Cameroon, Cape Verde, Niger and Senegal with the aim to facilitate the incorporation of the fisheries sector into national decentralisation initiatives. Thanks to the latter, the SFLP experience permitted cross-sectoral and inter level linkages between institutions.

<sup>12</sup> Documents on decentralization in several countries are available from the SFLP Web site: Cameroon, Burkina Faso, Congo, Guinea, etc.

However, in spite of this general decentralisation movement, real decision-making power and resources have not always been reallocated to local communities. There are several reasons for this including lack of capacity, both at the national level and at the receiving end in rural communities and centres. Fishing communities, often lacking organizational frameworks and structures, have not been able to ascertain and assert their rights and benefit from existing policies. Moreover, in the SFLP countries at the time of the start of the Programme, fisheries administrations and management were generally still centralised. The existing regulatory frameworks were not set up to support the participation of fisheries communities in fisheries management (Kinfoussia, 2005). Within the existing decentralisation policy framework, new instruments permitting the creation of local management institutions that could cooperate with local authorities in fisheries management and local development were needed (Kinfoussia, 2006). Considering the co-management approach adopted by SFLP, the notion of linking resource management and local development, including the access of fisheries communities to basic services, was particularly important.

The pilot projects supported fisheries communities and administrations in this direction by contributing to the creation of a legal environment that was conducive to co-management, and to participation in decision-making in local development. This involved either the development of new legal, administrative and institutional arrangements or, more commonly as it was practised in most of the SFLP countries, using and interpreting, as well as updating when required, existing laws and procedures to legitimise certain functions of co-management and ensure that fishing communities benefited from the delegation of decision-making power provided for within the framework of decentralisation.

An example from the pilot project on coastal fisheries co-management illustrates this process. A major activity carried out by the project was the review of the institutional and legal framework. This was done through a case study on participatory surveillance that was conducted in the four associated countries (Congo, Gabon, Guinea and Mauritania) with the aim of supporting those countries seeking legal recognition for their coastal fishing communities' participation in fisheries management, including monitoring, control and surveillance, and on the other hand to provide the pilot project with an approach and tools needed to involve these communities in the on-going decentralization process. The study highlighted some shortcomings and proposed amendments to remedy the situation. The workshops held in the various countries to validate the above amendments recommended that the fishery authorities take the necessary steps to legally recognize the fishing communities' involvement in fisheries management, including participatory surveillance. In Guinea where the process was developed more fully, local fishers' organizations known as the Landing Sites Development Committees (Comités de développement des débarquiers - CDD), the first series of which were established since the early 1990s, functioned until 2006 with no formal recognition by government despite the fact that they were playing a significant role in small-scale coastal fisheries' development and management (Cacaud, 2004; Njock, 2005). The pilot project assisted the Guinean ministry of fisheries in the process of legitimisation of the CDDs. For this purpose, the legal environment was updated by introducing the concept of participatory surveillance in the bill on the regulation of small-scale coastal fisheries, and by revising the statutes of the CDDs in such a way as to be able to introduce participatory surveillance in their mandate (Konaté, 2006). The process was sanctioned by the enactment of the ministerial decree No 676/2006 handing over the responsibility for coordinating the development activities of the fish landing sites to the CDDs, and the enactment of the ministerial decree No 677/2006 related to the guidelines on participatory surveillance. These actions help to translate de facto processes into the legal recognition of the rights of communities to participate in local decision making and local development. At the same time, as part of the decentralization process, the Government of Guinea has created

## BOX 4

**Conceptualisation of SFLP interventions addressing poverty, vulnerability and social exclusion within fishing communities**

- 1. Vulnerability: improved access to health services and secure fundamental rights**
  - Fishing communities are integrated in HIV/AIDS and other endemic diseases initiatives; and
  - co-management institutions take the lead to sensitise and involve fisheries community members and other stakeholders in the process (Congo, Gabon, Mauritania)
- 2. Marginalisation: institutional development with rights to work, rights of migrants and gender equity**
  - Migrants and women are members of socio professional and co-management organizations and participate in decision making process
- 3. Poverty: diversification, education, micro-finance and partnership development**
  - Fishing management committees organise development initiatives forums to attract funding by NGOs (Burkina Faso and the Gambia)
  - Integration of the fisheries sector in PRSPs in most of the SFLP's countries
  - For coping with the poverty environment, fisher folk socio professional organizations found it useful and opportune to establish partnerships with micro finance institutions and to diversify their livelihoods in various non fishing activities including agriculture, livestock, petty commerce and handicraft. Trainings in literacy, basic accounting and organizational development they benefited from the SFLP played a facilitating role for that.

Adapted from SFLP, 2005.

Rural Development Communities (*Communautés rurales de développement* - CRD) which are territorial communities responsible for coordinating development activities, including fisheries related activities, at local level. Because of the weak decentralization mechanism of the fisheries sector, community organizations of small-scale fishers were not receiving enough support to benefit from the opportunities available at the CRD level (Cacaud, 2004). The result is that fisheries communities' participation in the local decision making process was insignificant. With the legal recognition of the CDDs as from February 2006 through the ministerial decree No 676/2006 cited above, this constraint has been overcome.

In ways similar to the example described above, and taking into account the link with decentralised development processes, the pilot projects supported the emergence of recognised local fisheries organizations that were multifunctional institutions addressing both resource management and poverty reduction. By highlighting the synergies between poverty reduction and sustainable resource governance (see Chapters 1 and 2) SFLP contributed to the mainstreaming of small-scale fisheries in local and national development policies that tackled poverty in its multiple facets, including marginalisation and vulnerability. Hence, the fishery communities became more audible and their concerns more visible better understood and better considered by policy makers and development partners. Other examples from countries involved in the pilot projects and other smaller initiatives (community and institutional projects) illustrate that trend (Angaman, 2007; Holvoet, 2007; Ndenn, 2007; Njock, 2007) led by dynamic and effective co-management institutions. These institutions address the three dimensions of poverty as it is stressed in Box 4 in actual examples that are found in most SFLP countries.

In the context of the SFLP, the policy framework affirming the principle of community participation in both fisheries management and wider local development thus becomes a prelude to the establishment of co-management institutions that address both poverty alleviation and responsible fisheries (SFLP, 2005).

In summary, the linkage between co-management and local development allowed community-based fishery organizations and fishery departments to link their resource management requirements with local development processes. This is a good example of how SFLP simultaneously addressed both the principles of the SLA and the Code. A major limitation of the work, however, was a lack of time and resources to build on these incipient achievements and to ensure that improved linkages with development processes at meso and macro-level translated into measurable gains in the form of reduced poverty and improved resource governance. In some cases, the required policy and legal reforms were not completed due to lack of time. Further support to these innovative and important initiatives is required.

### **BUILDING EFFECTIVE INSTITUTIONS AND LINKAGES**

Co-management involves delegation of authority by government to local institutions, which are defined by Pomeroy and Berkes (1997) as a set of rules actually used by a group of individuals to organize their activities. These activities may deal with political issues or be related to socio-economic needs of the communities. Co-management institutions take a variety of forms depending on the country concerned, the type of management function to be handled at the community level and the co-management goals and objectives targeted (Pomeroy and Berkes, 1997). The most common form, however, includes grass root structures including socio-professional organizations at the micro level made up mainly of the different components of the community (fishermen, women fish processors, village heads, fish traders, etc.) and multisector organizations at the meso level (local government, district, division) which include fishing communities representatives, local administration officers, NGOs and socio-economic institutions (micro finance and others) representatives. Advisory services may also be provided by central government institutions, or even by international organizations – e.g. inputs into research. In some cases, co-management structures act only as advisory bodies, and in others, they participate fully in decision-making processes. To be fully operational and efficient, these institutions must have legitimacy by government through the existing legal instruments, as explained in the previous section. The inclusion of the poor and other marginalized groups (women, migrants) into the co-management institutions is a key issue to address in the context of poverty reduction.

To identify priority concerns to address exclusion and marginalization, the SFLP used a mixed-set of analytical methods/tools including poverty profiling, stakeholder analysis and gender profiling (Pitaluga and Reyntzens-Mesquita, 2004).<sup>13</sup> The outcomes from these exercises were used as inputs into the formulation of the co-management pilot projects' activities. The institutions derived from project implementation were reinforced in order to assist the participants in acquiring the skills to work and collaborate with multifunctional development structures.

Cases developed in Burkina Faso (inland) and Guinea (marine) are used in the following paragraphs to illustrate the co-management institutions created and their linkages with wider development activities. The local fisheries institutions built up at the local level in the two countries represent the majority of resource users in their communities, have legal status and through their collaboration with NGOs, micro-finance institutions (MFIs) and institutions in charge of local development are establishing links between co-management and the development process including poverty alleviation policies implemented by specialised institutions (health, PRSPs,

<sup>13</sup> See Chapter 2 for information on poverty and marginalization and Chapter 10 for information on gender analysis.

education, decentralisation, etc) (Konan, 2007; Njock, 2007). Therefore, they are a vital channel for representing their members, composed of resource users and other stakeholders, such as traditional authorities and local administrations. By so doing they have the opportunity of influencing the direction of policies and decision-making.

In Burkina Faso, two management committees were set up, one on Lake Bagré, and the other on Lake Komienga (Konan, Njock and Allison, 2006). The two are good examples of cases where the fishing communities participate directly in the management of fisheries resources. The management committee comprises the territorial administration, the decentralised technical administrations, consular chambers, NGOs, MFIs, representatives of traditional rulers, and representatives of socio-professional associations. The committee has a legal and legitimate status. It has helped increase awareness among national authorities of the need to take into account the interests of fishing communities. The committee approves and validates the co-management plans and the rules of procedure, and creates specialized commissions to address specific management issues such as surveillance in fishing camps, creation of a local fisheries management fund, training of committees' members, protection of fish habitats by creating fish reproduction zones and the protection of the water banks. There also exist community-based socio-professional organizations and their unions. These structures have accreditations that make them credible representatives of fishing communities in their negotiations with other partners, administrations, MFIs, NGOs, etc. The fact that all co-management structures have legal status and legitimacy helped to restore confidence between the administration and the fishing communities, and to ensure the effective participation of the latter in the co-management process.

In Guinea, the formalization of the fishing communities' participation in fishery resource management led to the establishment of legally-recognised community based institutions (Kourouma, 2006; Njock, 2007). These bodies, especially the CDD, as explained above, carry out duties such as participatory surveillance, ensuring that the rules governing safety at sea are obeyed and conducting participatory monitoring and evaluation through *ad hoc* bodies recognized in the statutes approved by the Guinean authorities. These small-scale fisheries consultative councils give advice on matters related to fishery resource management and local development activities. The small-scale fishers are now no longer merely passive onlookers, but players in a participatory process: their representative bodies (social professional organizations and CDD), in conjunction with the Prefectoral and Regional Councils and the National Consultative Council, are entitled to participate in formulating fishery management measures for coastal areas, to monitor the implementation of such measures and to carry out participatory surveillance under the aegis of and in partnership with the National Fisheries Surveillance Centre (*Centre national de surveillance des pêches* - CNSP). The communities are now fully involved in decision-making in fishery management and other matters of interest to them. The legal recognition of fishers' right irrespective of nationality has resulted in migrant fishers becoming involved in fisheries management. The provisions covering their involvement in management are contained in the by laws governing the approved socio-professional organization.

Different positive achievements realised by various institutions and development partners in Guinea and Burkina and others SFLP countries illustrate the effectiveness of the local institutions established and show that they are able to carry out their mandate. If these outputs are to be sustained, the support from government must be continued in terms of institutional capacity building and other forms of supportive actions.

#### **ENABLING EFFECTIVE AND EQUITABLE PARTICIPATION**

Since the co-management experience is still in its early stage in most of West and Central Africa countries, it became necessary for the SFLP to initiate an institutional capacity building strategy so that the different partners involved, and fishing

communities in particular, can set up functional structures to enable them to participate effectively in the decision-making process while being able to protect their interests. As stated above, participatory appraisals were conducted to have a better understanding of the causes of poverty in fishing communities (poverty profile) and to ensure that marginalised groups (women, migrants) are included in the institutional process, while at the same time ensuring equity in their access to the resources and profit sharing. Three factors - illiteracy, difficult access to credit and weak organizational capacities of fishing communities - were found as the major reasons behind the low participation level of rural communities in decision-making, and especially in fisheries resource management. Therefore, SFLP focused some of its activities on community development issues, explored through the use of a large number of 'community projects' (see Chapter 1). The issues addressed in community projects concerned human capacity development, such as numeracy and literacy training (especially but not only of women), improving access to health information and services, and the development of technical skills (such as improvement in fish processing techniques, particularly fish smoking as a means of reducing post-harvest losses, and of support for alternative income generating activities). They also emphasised building social capital, for example through development of professional organizations, and modest investment in physical capital, such as development of community infrastructure (Njock, 2007).

Examples of achievements and lessons drawn from these initiatives include:

In the Burkina Faso case study, 570 persons, 60% of which are women, have learned to read and write in one local language or another through the adult literacy programmes offered by the SFLP. This was achieved through a participatory approach: an agreement had to be reached with the fishing communities on which language to teach. Around 18 adult literacy training centres were opened.

For the coastal fisheries pilot project, the migration phenomenon of fisheries communities makes building capacity initiatives more complex. In the countries involved, the majority of fishers are migrants. Literacy programmes organised by the pilot project had to take into consideration this element and adapt interventions consequently giving great attention to organizational development and building skills, and to co-management and local development related items including alternative income generating activities. The various topics covered involved nationals and migrants as well. In Congo, 522 micro-level players, 264 of which were men and 258 women, and 91 meso and macro-level players received the training provided under the pilot project. In Gabon, 655 persons, including 183 women, received training. In Guinea, 1 790 persons received training in various topics.

The improvement of the educational level and organizational skills of the beneficiaries had a positive impact on various aspects of their livelihood assets as it is discussed in the following points:

- *Improvement of the organizational capacities of fishing communities:* adult literacy programs helped to create new socio-professional organizations and improve the organizational capacities of the existing ones. Today, more than half of the managers of fishermen's and women fish processors' groups and associations in the pilot project sites are educated. Their facilitators have come to understand that the informal nature of their associations is a handicap to their activities. Therefore they have taken actions to have their associations legalised. Using their official documents, the associations were able to present their application to microfinance institutions, which resulted in their benefiting from training and loans. Moreover, capacity-building helped the stakeholders share the same vision of co-management and understand the link between this and the country's current decentralization and local development policies. 46 SPO were created in Congo and women made up to 46% of the membership. The process of their legalisation was underway at the time of concluding the Programme. In Gabon ten of them were created and registered with the fishery authorities. They are currently being granted legal

status by the Interior Ministry following the procedure required by the current legislation; women make up to 45% of SPOs' members and account for one third of the SPOs' boards while 22% of them are migrants. In Guinea, 86 cooperatives comprising both men and women have been granted legal status;

- *Improved information flow:* thanks to their new note-taking skills, the delegates of fishing communities who participate at the different meetings held with other stakeholders (projects, administrations, etc.) have more reliable reports. Information sharing has improved, as have the discussions ensuing from them. All these promote a better understanding of the issues at stake, as well as the involvement of one and all in the activities that concern them;
- *Emergence of a democratic spirit:* Before assigning members of the fishing communities to the different structures involved in co-management (management committees, specialised committees), community-based organizations discuss the profiles of their representatives and assign them on the basis of their skills and ability to defend their interests within the decision-making arenas. Birthright (traditional rights to deference/reference) is gradually being replaced by the promotion of competence and efficiency.

### **INCENTIVES TO PARTICIPATE IN CO-MANAGEMENT, IN THE CONTEXT OF POVERTY**

The Pilot projects have helped create an enabling policy and legal framework for co-management, promoted effective institutions and linkages with decentralized government and enabled collaboration between key stakeholders at all levels, with participation facilitated by capacity building and targeted programmes to include the poor and vulnerable in co-management institutions. There remains only a need to ensure that users groups will continue to collaborate and contribute their time and effort to participating in the co-management process. These collaborative efforts depend not only on government support but also on the incentives that cooperation and participation offer. We recognise, with Kem Lowry *et al.* (1999) that “to the extent that people see their individual and collective efforts result in positive change, the prospects for continued cooperation are increased”. In the case of fisheries co-management, immediate returns to these efforts may not be visible. Indeed, it may be that, in the short-term, the costs are the only visible outcome of the establishment of co-management. These costs may take the form of reduced access to resources, the need for more rules regulating access, the need for investment in monitoring and enforcement, and for time in decision-making and consensus-building fora. To overcome these short-term costs, and sustain people's participation, either the expectation of future benefits must be very high, or some short-term incentives must be visible too. In other words, positive changes that are associated with a transition to co-management can act as incentives. This requires careful attention to the opportunities that collective action can provide in terms of addressing some of the capability and assets deficits that people experience, at the same time as resource management institutions are developed. The kinds of activities that can be associated with a co-management programme include:

#### **Enhancement of financial capital**

In Burkina Faso, access to the services of microfinance institutions provided in the context of building co-management is a good example of providing an incentive for the short-term costs that arise due to increased regulation of the fishery. Fishing communities that have undergone the adult literacy programmes, and in particular the women among them, have come to appreciate the implications of the new livelihood opportunities available to them as a result of their higher educational level (Barry, 2006). Thanks to capacity building offered by the Pilot project, they have become more receptive to sensitization campaigns organised by microfinance institutions on

the need to be better organized prior to be eligible to loan schemes. Also, negotiation skills gained from training activities made them able to convince their partners easier than before and to advocate their cases. From 2003 to 2006, the number of clients of the Fund to support women's income generating activities (*Fonds d'appui aux activités génératrices des femmes* - FAARF) increased from 12 to 120 women organized into a socio-professional organization and a fisheries product processors union. They have been able to benefit from loans of close to 27 million CFA (US\$50 950) which they used to improve their investments (purchase of fish, construction of ovens, acquisition of fish-smoking grills). They also spent part of these loans to diversify their activities into petty trading and most especially livestock farming (Njock, 2007).

In Guinea and Congo, two aspects are to be underscored:

1. The development of dialogue between the MFIs and the fishing communities has facilitated the access to MFIs for some communities although this practice is not yet very widespread. For instance, about half a dozen socio professional organizations (SPOs) in Congo have opened accounts with MFIs in Pointe Noire to support their co-management and other development activities. In Guinea, 36 individuals, men and women, and 43 groups in Koba, Kindiady, Doyéma and Kamsar have obtained credit from the MFI "Rural Credit of Guinea" (*Crédit rural de Guinée* - CRG). (Njock, 2007)
2. The establishment of savings and credit facilities: at the communities' initiative, financing facilities are emerging in the form of tontines (savings schemes). In Congo, a community bank<sup>14</sup> was formed in 2006 at the Base-Agip beach with the support of the pilot project and the national AIDS eradication council (CNLS). It has about 50 members. In Guinea, a similar facility is currently being set up in the form of a mutual credit association reserved for fishers. It goes by the name of the Guinea small-scale fishing savings and credit mutual association (MECREPAG) which, in December 2006, had funds amounting to 700 million Guinean Francs,<sup>15</sup> made up of fishers' own voluntary funds. It should be pointed out that MECREPAG is currently the main development tool of the national union of Guinean small-scale fishermen (UNPAG) (Njock, 2007).

All these initiatives did not exist before the pilot project. They are the outcome of the co-management process that assists people in organising themselves, and in coping with shocks within a hardship situation. These linkages between co-management and investment in human and social capital development have thus also helped people in fishing communities to secure funding from their own efforts to support co-management, reducing dependency of co-management schemes on external funding – a recognized problem for sustainability of this approach (Allison and Badjeck, 2004).

### **Alternative income generating activities**

Generally speaking, fishing communities, like all other rural communities, tend to diversify their activities to deal with the risks of uncertain returns from fluctuating fishery resources – if there are economically viable opportunities for them to do so and conditions that enable access to such opportunities (Allison and Ellis, 2001). The imperative to diversify is greatest when fisheries resources are overexploited and incomes from them decline, or become more variable. In such circumstances, enabling diversification can be seen as a fisheries management measure, and thus a key part of any co-management process.

In Ghana, as part of the co-management pilot project, different types of training were provided to fishing communities to help them overcome barriers to diversification.

<sup>14</sup> This facility is managed by the umbrella organization of fishing community members

<sup>15</sup> 1EUR = 6 050 Guinean Francs (December 2006)



These cover a wide range of activities like snail breeding, batik, cosmetics production, bakery and Kente weaving.

Promoting new income generating activities helps to improve the overall income of households, but, in the context of fishery management, their most notable effect lies in the fact that they create alternatives to fishing, thereby raising the opportunity costs of entering the fishing and opportunity income of leaving it. In Ghana, the new tasks within crop and livestock farming were largely undertaken by boys and young men, and trading and processing by the girls. Without improved access to these opportunities promoted as part of the co-management process, these young people might previously have entered the fishery, thereby accelerating its decline.

Income generating activities help to improve the productivity of women fish traders and women who process fish products for a living. They also help to reduce the exclusion of women in the production systems. Fishermen, on their part, acquire equipment, a fact that may lead one to think that fishing effort will increase as a result. However, what has often been observed is that the loans are actually used to purchase fishing materials that comply better with the regulations than those that are currently in use. In these cases, fishermen are investing in both their own livelihoods and in the responsible governance of the resources that sustain them. This is an indication that incentives for fisheries management can be fostered through the reduction of uncertainty and vulnerability

In Congo, cassava is now cultivated since the use of improved cuttings was promoted in the pilot project area. Community cassava fields were opened up by 60 beneficiaries. Market gardening has also been developed. In Gabon, the Ongam fishing community have established a community banana plantation; domestic animal raising was developed in the Lémé and Massamboué fishing communities and market gardening was promoted in the Cap Estéris fishing community. In Mauritania, mechanical repair and maintenance workshops for outboard engines have been set up and fishing net-making activities (traditional shoulder-held nets to replace the banned monofilament gillnets) have been developed; women have begun household rubbish collection and also provide food and accommodation for guests in the framework of mini-tourism initiatives.

All the above examples point to positive synergies between investing in development as a means to facilitate future achievement of resource management goals through co-management. In Burkina Faso, however, it has been observed that fishing communities that benefit from additional funding, for example through improved credit provision or income from improved access to non-fishery livelihood activities, tend use their loans and additional income first and foremost to procure equipment for fishing and fish processing activities, the latter in the case of women (Sangare, 2006); SFLP, 2006). The women spend 83% of their loans to improve their processing techniques and to increase their access to fish, and only reserve 15% for other non-fisheries related activities like petty trading, vegetable gardening and livestock farming. This last activity appeared to be the most profitable income-saving sector for fishing communities.

### **Vulnerability reduction**

Vulnerable people with uncertain futures are likely to have less incentive to participate in fisheries co-management that requires short-term restraint for long term gain. This is particularly the case in communities experiencing high levels of morbidity and mortality as a result of accidents at sea, and AIDS-related illness. In such cases, raising the community's awareness of HIV/AIDS and other sexually-transmitted diseases (STD), and addressing safety at sea become a key part of an investment in co-management.

Before the pilot project, between 2003 and 2005, there were 104 accidents in the pilot project area in Guinea, in which 136 persons died and 439 were injured, whereas in 2006, there were only 10 accidents, in which 4 persons died and 22 were injured. This sensitive diminution in the frequency and the severity of accidents at sea has been attributed in part to the training given to the fishers by the pilot project. The training concerned sea safety for artisanal fishers and the way to improve it. It is expected that the encouraging outcome of this activity will help to generate political will to address in a sustainable manner the small vessel sea safety.

In Congo, activities designed to prevent and control HIV/AIDS were carried out among the fishing communities. This was the first time they had been involved in all the activities undertaken by government and development partners in response to the national HIV/AIDS eradication strategy. Based on the satisfactory results obtained by the association for self-promotion of fishing community initiatives (AICP), Base-Agip's umbrella organization, under an HIV/AIDS prevention project funded by the national AIDS prevention committee (CNLS), fishing community members all along the coast have become youth workers and social communication providers using forum theatre techniques (SFLP Congo, 2006). This has increased awareness of HIV/AIDS-related issues; 2 374 persons have been alerted to the problem. Twenty-five vulnerable households at Base-Agip received support to diversify their livelihoods through activities jointly promoted by CNLS and FAO (Livelihoods Diversification Enterprise Development - LDED). In Gabon, cooperation between the pilot project and the national AIDS prevention programme (PNLS) resulted in an HIV/AIDS and STD awareness campaign in the project area, which reached 1 302 persons. This campaign has had a positive impact: AIDS is now talked about freely in these communities and many fishermen accept that it is necessary to take the HIV test. As a result, HIV screening has been carried out in Noya District and those found to be HIV-positive are currently being helped by the PNLS.

### **Incentives linked to policies**

In the SFLP co-management pilot project locations, more attention was paid to fishing community concerns by policy makers. This has been made possible through training in participatory approaches, such as the sustainable livelihoods approach (SLA), provided for civil society technical partners (NGOs) and the public sector officers. For some pilot project activities, senior public sector officers worked as consultants to help influence policies for the communities' benefit. The development of multiform strategic partnerships for the benefit of the communities has also resulted in the fishing communities' concerns being reflected in local development where multifunctional institutions (IMF, health, decentralization, food security, PRSP, education, etc.) addressing both poverty reduction and resource management joint their assets for the benefits of fishing communities. The synergy boosted by the complementary actions of such institutions constitute an incentive for policy markers to support co-management because through that way they enhance their achievements in fisheries governance and poverty alleviation. For resource users, working with multifunctional institutions is vital because it gives them opportunities to be in contact with partners through which the complementary actions could help to improve different dimensions of their livelihood.

As a result of looking at resource governance through an SLA lens, SFLP has demonstrated that the transaction costs of a shift to co-management can be offset by parallel investments in poverty reduction. This has two synergistic effects. It helps to provide incentives for fisheries communities to participate in co-management, and it builds their capacity to do effectively. To achieve these synergies, it is necessary to move co-management programmes beyond a narrow concern for regulating access to

fishery resources, and to see community-based fishery management organizations as local development organizations, working in partnership with local government service providers and other stakeholders (including private micro-finance organizations, business advisory services, education providers and so on) to address both poverty reduction and responsible fisheries.

### **LESSONS LEARNED FOR FUTURE FISHERIES MANAGEMENT IN A POVERTY CONTEXT**

Based on the review of the case analysed, a number of lessons learned have been identified:

- To achieve the four necessary conditions in the SFLP co-management context, better circulation of and access to information within the socio-professional organizations, and in the co-management structures, help to build up the confidence of partners, increase transparency, and gives legitimacy to the decisions taken. The social equilibrium of rural communities is preserved, and the conditions for their common security are guaranteed. Although the ownership of the process is slow, it is nevertheless, gradually being internalised, and confers a special status on each party, a necessary condition for sustainable partnership. An appropriate communication system encourages community participation in discussions about policies and is the ideal tool to bring about change, a common approach, acceptance of development measures, social dialogue and the mobilization of resources for the benefit of the communities. Providing information to and raising the awareness of the decision-makers helps ensure that national policies and programmes, such as the national programme for the prevention of serious diseases (e.g. malaria and HIV/AIDS), poverty reduction policies (PRSP), and decentralization policies, take the fishing communities' concerns into account.
- The equitable representation of all the components of the rural communities in co-management institutions make it possible to take the views and interests of all parties involved into consideration in the co-management process. It also helps to ensure that the measures put in place have a sustainable effect on the lives of the most underprivileged social groupings. Nevertheless, one cannot deny the fact that the most vulnerable people may end up being excluded in the group approach, and this is why these groups must be given very special attention through the development of a gender and class-sensitive approach.
- Poor fishing communities have very few opportunities. They draw most of their livelihoods from nature, in other words, from fisheries resources. They therefore live from hand to mouth (short term survival methods), a fact that may end up compromising the co-management actions, the results of which are only expected to become evident in the long term. Capacity building activities (adult literacy, access to the services of micro finance institutions, income generating activities) help to open up new prospects that detach fishing communities from the resource to some extent. The promotion of new income generating activities also has this effect of reducing fishery-dependence, and uptake of such new opportunities is often enhanced by investment in increasing the capabilities of the poor. These kinds of interventions in communities can therefore work to garner support for the co-management process. However, financial support tends to encourage the acquisition of production equipment (fishing materials where the fishermen are concerned, and access to fish and improvement of the fish-processing techniques for the women). This is not always detrimental to resource management; it has been observed that when fishing communities manage fishing gear stores with the support of management committees, the fishing gears supplied comply better

with what is provided for in the regulations, and therefore contribute indirectly to the restoration of the resource.

- Capacity building lays the foundation for poverty and vulnerability reduction in fishing communities. A higher educational level (adult literacy) helps to improve their level of awareness and helps them to discover the value in giving of oneself, self-sacrifice and generosity, all of which qualities are necessary for social engagement. The enhancement of human and social capitals helps to increase the ability of individuals and groups to engage in the individual and collective valorisation process. It also helps them to have renewed confidence in themselves, and to mobilise themselves and get involved in projects of common interest like the management of fisheries resources.
- Even if it is true that fishing communities should be the priority beneficiaries of capacity building interventions in co-management, it is nevertheless true that the capacities of government officers and local community groups should also be strengthened, as they too, are learning new ways of working in a multistakeholder context.
- Functional and effective co-management institutions represent frameworks and tools for dialogue with multifunctional institutions dealing with the development process like decentralisation and poverty alleviation. They can influence the decisions of local authorities in order to ensure that fishing communities are provided with social infrastructures and obtain access to basic social services. In this way, the negative perception that communities have of their management committees because of their visible role in discouraging irresponsible fishing practices will be corrected through the provision of services that will help to improve livelihoods, while still promoting responsible fisheries.
- The sustainability of the co-management process can be achieved if the political and legal environment is supportive and provides rights for the communities to participate to decision making. Moreover, the setting up of co-management arrangements is a long time process requiring various supports from all the stakeholders involved and various incentives to sustain the process.

## REFERENCES

- Allison, E.H. & Badjeck, M-C. 2004. *Fisheries co-management in inland waters: A review of international experience*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 125 pp. (available at [www.sflp.org](http://www.sflp.org))
- Allison, E.H. & Horemans, B. 2006. Putting the principles of the Sustainable Livelihoods Approach into fisheries policy and practice. *Marine Policy* 30: 757-766.
- Allison, E.H. & Ellis, F. 2001. The livelihoods approach and management of small-scale fisheries. *Marine Policy*. Volume 25: 377-388.
- APFIC/FAO. 2005. *Mainstreaming fisheries co-management in Asia-Pacific*. Regional APFIC Workshop in Siem Reap, Cambodia 9-12 August 2005. FAO RAP Publication 2005/09. 22 pp.
- Arthur, R.I. 2005. *Developing, implementing and evaluating policies to support fisheries co-management*. London, MRAG Ltd. 12 pp.
- Arthur, R.I. & Howard, C. 2005. *Co-management: a synthesis of the lessons learned from the DFID Fisheries Management Programme*. London, MRAG Ltd. 40 pp.
- Barry, B. 2006. *Etude d'impacts de l'alphabétisation sur les ménages, les groupements productifs et sur la gestion participative des ressources halieutiques*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 77 pp. (available at [www.sflp.org](http://www.sflp.org))
- Bonnal, J. & Rossi, M. 2006. *Les communautés de pêche face à la décentralisation. Institutions pour le développement rural*. Document de travail (7). Rome, FAO. 11pp. (available at [www.sflp.org](http://www.sflp.org))

- Cacaud P.** 2004. *Propositions visant à consolider les acquis du projet sur la surveillance participative en Guinée*. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 26pp.
- Djangone, A.M. R., Ovono Edzang, N., Mouelle Mouelle, C., Angoué Augée, C. & Rerambyath, G.A.** 2003. *Profil de pauvreté dans les communautés de pêche artisanale des départements de la Noya et du Komo Mondah, Gabon*. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 61pp.
- Fleishman, R.** 2006. Co-management as a solution to the “Tragedy of the Commons”? Lesson from Thai Fisheries. *Journal of the Development and Social Transformation*. 25pp.
- Holvoet, H.** 2007. *Lessons learned from Community and Institutional support projects. Internal evaluation 2000–2006. Sustainable Livelihoods Programme in West Africa*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 121 pp. (available at [www.sflp.org](http://www.sflp.org))
- Horemans, B. & Jallow, A.** 1998. Current state and perspectives of marine fisheries resources co-management in West Africa. In A. K. Normann. *et al.* (Eds). *Fisheries Co-management in Africa: Proceedings from a Regional Workshop on Fisheries Co-management Research (Mangochi, Malawi, 18-20 March 1997)*. Hirtshals, IFM: 233-254.
- Jentoft, S.** 2003. Co-management – the way forward. Pages 1-14. In D. C. Wilson, J. R. Nielsen, and P. Degnbol, editors. *Fisheries Co-Management Experiences in Latin America and the Caribbean. Fish and Fisheries Series, Number 26*. Kluwer Academic, Dordrecht, The Netherlands.
- Kinfoussia, C.** 2005. *Etude sur la participation des communautés de pêche au système de suivi, contrôle et surveillance des pêches au Congo*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 29 pp. (available at [www.sflp.org](http://www.sflp.org))
- Kinfoussia, C.** 2006. *Réforme de la législation sur la pêche maritime au Congo; étude centrée sur la pêche artisanale: rapport de consultation*. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 30 pp.
- Konan, A., Holvoet, K., Boungou, G., Makanga, S., Massemba, H., & Bagamboula, E.** 2003. *Profil de pauvreté des communautés de pêche artisanale maritime en République du Congo*. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 67 pp.
- Konan, A., Njock, J.C. & Allison, E.** 2006. *Making fisheries co-management work for both poverty reduction and responsible fisheries: lessons from coastal and inland waters of west and central Africa*. Paper presented at the IIFET Conference, Portsmouth, July 2006.
- Konan, A.** 1999. *Co-management in Aby lagoon (Côte d’Ivoire): preliminary results*. Fisheries Co-management Project ICLARM-IFM-NARS/ Project for the Development of Artisanal Fisheries on Aby Lagoon (Côte d’Ivoire).
- Konan, A.** 2007. *Projet pilote «Amélioration de l’environnement politique et institutionnel pour le développement de systèmes de cogestion en pêche continentale au Burkina Faso, au Mali, en Côte d’Ivoire et au Ghana », Rapport terminal*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 55 pp. (available at [www.sflp.org](http://www.sflp.org))
- Konaté, F.** 2006. *Institutionnalisation de la surveillance participative en Guinée*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 58 pp. (available at [www.sflp.org](http://www.sflp.org))
- Kourouma, M.** 2006. *Rapport terminal Guinée. Projet pilote aménagement participatif des pêches en zone côtière*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 31 pp. (available at [www.sflp.org](http://www.sflp.org))
- Kponhassia, G. & Konan, A.** 1997. The traditional management of artisanal fisheries in Côte d’Ivoire: the case of Aby Lagoon. In A. K. Normann. *et al.* (Eds). *Fisheries Co-management in Africa: Proceedings from a Regional Workshop on Fisheries Co-management Research (Mangochi, Malawi, 18-20 March 1997)*. Hirtshals: IFM, 273-290.
- Lowr, K., Pallewatte, N. & Dainis, A.P.** 1999. Policy-relevant assessment of community-level coastal management projects in Sri Lanka. *Ocean and Coastal Management* 42 (1999) 717-745

- Ndenn, J.** 2007. *Pilot project Improved livelihoods in post-harvest fisheries in Cameroon, Chad, the Gambia and Senegal* Terminal Report. Sustainable Fisheries Livelihoods Programme (SFLP) report. 31pp. (available at [www.sflp.org](http://www.sflp.org)).
- N'dia, Y., Diallo, M.M., Traoré, S., Sylla, S.D. & Soumaoro, B.** 2003. *Pauvreté des communautés de pêche artisanale du littoral guinée (Préfectures de Boffa et de Boké)*. Rapport de consultation. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 47 pp.
- Nguinguiri, J.C.** 2004. *Gouvernance des aires protégées dans le Bassin du Congo: principes et pratiques*. International Symposium. Tropical Forests in a Changing Global Context. Royal Academy of Overseas Sciences. United Nations Educational, Scientific and Cultural Organization. Brussels, 8-9 November, 2004: 127-137.
- Njie, M. & H. Mikkol, H.** 2001. A fisheries co-management case study from the Gambia. *Naga, the ICLARM Quarterly*, 24 (3 & 4) July-December 2001: 40-49.
- Njifonjou, O., Satia, B. & Konan, A.** 2005. Fisheries co-management and poverty alleviation in the context of the sustainable livelihoods approach: A case study in the fishing communities of Aby lagoon in Côte d'Ivoire. *The International Journal of Sustainable Development and World Ecology*, 12: 135 – 143.
- Njock, J.C.** 2005. Les conditions de l'intégration de l'aménagement participatif dans les politiques nationales de pêche. *Bulletin de liaison du PMEDP n° 21 & 22*. Dossier Politiques publiques. PMEDP/FAO/DFID, Cotonou, Bénin, décembre 2005 :17-19. (also available at [www.sflp.org](http://www.sflp.org))
- Njock, J.C.** 2007. *Projet pilote «Aménagement participatif des pêches en zone côtière au Congo, au Gabon, en Guinée et en Mauritanie», Rapport terminal*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 34 pp. (available at [www.sflp.org](http://www.sflp.org))
- Pittaluga, F & Reyntzens-Mesquita, D.** 2004. *Participatory monitoring and evaluation of fisheries management projects*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 51 pp. (available at [www.sflp.org](http://www.sflp.org))
- Pomeroy, R.S.** 1995. Community-based and co-management institutions for sustainable coastal fisheries management in Southeast Asia. *Ocean and Coastal Management*, Vol. 27, No. 3: 143-162.
- Pomeroy, R.S. & Berkes, F.** 1997. Two tango: the role of government in fisheries co-management. *Marine Policy*, Vol. 21, No 5: 465-480.
- Pomeroy, R.S., Katon, B.M. & Harkes, I.** 2001. Conditions affecting the success of fisheries co-management: lessons from Asia. *Marine Policy*, 25 (200): 197-208.
- Sangare, M.** 2006. *Etude des impacts du crédit sur les ménages, les groupements productifs et sur la gestion des ressources halieutiques autour des lacs de Bagré et de Kompienga (Burkina Faso)*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 66 pp. (available at [www.sflp.org](http://www.sflp.org))
- SFLP.** 2003. *Document du projet pilote Amélioration de l'environnement politique et institutionnel pour le développement de systèmes de cogestion en pêche continentale au Burkina Faso, Côte d'Ivoire, Ghana et Mali*. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 40 pp.
- SFLP.** 2004. *Document du projet pilote aménagement participatif des pêches en zone côtière au Congo, Gabon, Guinée et Mauritanie*. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 35 pp.
- SFLP.** 2005. *Synthesis of lessons learned*. Sustainable Fisheries Livelihoods Programme (SFLP) Workshop Report. Dakar, Senegal 21-25 November 2005. (available at [www.sflp.org](http://www.sflp.org))
- SFLP.** 2006. *Impacts des activités génératrices de revenu sur les moyens d'existence des communautés de pêche et sur la gestion des ressources halieutiques (Burkina Faso)*. Sustainable Fisheries Livelihoods Programme (SFLP) report. 38 pp. (available at [www.sflp.org](http://www.sflp.org)).
- SFLP Congo.** 2006. *Tchemouna. Le théâtre forum dans les communautés de pêche au Congo*. CD-Rom. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document).

- Sverdrup-Jensen, S. & Raakjaer Nielsen, J.** 1998. *Co-Management in Small-Scale Fisheries: A Synthesis of Southern and West African Experiences*. Conference: Presented at “Crossing Boundaries,” the seventh annual conference of the International Association for the Study of Common Property, Vancouver, Canada, British Columbia. June 10-14, 1998.
- Wane, B.H., Sidi El Moctar, O.I., Dia, A.B., Kadia Sall, K. & Ahmed Vall, A.O.** 2003. Profil de pauvreté des communautés de pêcheurs du littoral mauritanien. Sustainable Fisheries Livelihoods Programme (SFLP) (Unpublished working document). 44p.