

MAKING FISHERIES CO-MANAGEMENT WORK FOR BOTH POVERTY REDUCTION AND RESPONSIBLE FISHERIES: LESSONS FROM COASTAL AND INLAND WATERS OF WEST AND CENTRAL AFRICA

Konan Angaman¹, Jean-Calvin Njock¹ and Edward H. Allison²

¹Sustainable Fisheries Livelihoods Programme
Regional Co-ordination Unit
Cotonou, Benin
Email: Konan.Angaman@sflp.org; JeanCalvin.Njock@sflp.org

and

²School of Development Studies,
University of East Anglia
Norwich NR4 7TJ, U.K.
Email: E.Allison@uea.ac.uk

ABSTRACT

Fisheries co-management is the institutional model of choice to maintain and rebuild fishery resources in the small-scale sector. This paper argues that the transfer of regulatory and property rights from the central state to multi-stakeholder bodies, including resource users, and local government, can only achieve sectoral efficiency goals - such as maximising wealth generated from fisheries or other socially desirable optima - if they are accompanied by efforts to address the vulnerability and social exclusion of the new rights-holders and decision-makers. Case studies from West and Central African countries are presented to indicate how resource rebuilding and poverty reduction are addressed jointly by strengthening both co-management systems and the livelihoods of fishery resource users.

Key words: Co-management, capacity building, empowerment, vulnerability, –microfinance, diversification, capabilities

INTRODUCTION

For much of the history of fisheries science, fishery management has been focused on the fish resources. It has privileged stock conservation and paid scant attention to human development issues among fisherfolk. The mechanisms for decision-making were controlled exclusively by centralised administrations and their deconcentrated (local) offices and functionaries. This approach is now being questioned more and more since new development imperatives and political options aim to involve rural populations in the local resource management and development process, including efforts to eliminate poverty and increase food security.

It was within this context that co-management, a new governance system, was recently introduced in the fisheries sector of West and Central African countries. The co-management process is conducted through dialogue and the active participation of the various stakeholders, including the users of the resources, in the management of natural resources. This approach covers a variety of institutional arrangements between government agencies, the users of the resource, and other stakeholders, all of which share responsibilities and decision-making powers for the management of fisheries resources among themselves. This makes it possible to determine by consensus, how roles, functions and powers are to be shared among the different partners, and to then formulate legal rights to define and defend these powers – including

rights of access to resources and property rights. Guided by the principles of the Sustainable Livelihoods Approach (SLA) and the Code of Conduct for Responsible Fisheries (CCRF), one of the goals of co-management in the West and Central African context is to help reduce poverty and vulnerability (to poverty) in fishing communities. It also aims to ensure the sustainable exploitation of the fisheries resources (PMEDP, 2005).

This paper presents some of the early experiences of implementing pro-poor co-management experiences in West and Central Africa. It shows how capacity-building interventions in the communities can help to reduce the vulnerability and poverty of fishing communities, while at the same time promoting the establishment of the institutions that will enable them to participate actively and effectively in the co-management process. It highlights the fact that the recognition of the rights of rural communities is a determining factor in their participation in the co-management process. Finally, it attempts to demonstrate that poverty reduction and responsible fisheries go hand in hand.

PILOT PPROJECTS AND THE CO-MANAGEMENT STRATEGY

Two Pilot Projects based on the co-management strategy [1,2] were implemented in eight of the countries covered by the Sustainable Fisheries Livelihood Programme (SFLP) in both inland and coastal fishing communities (see map fig 1).

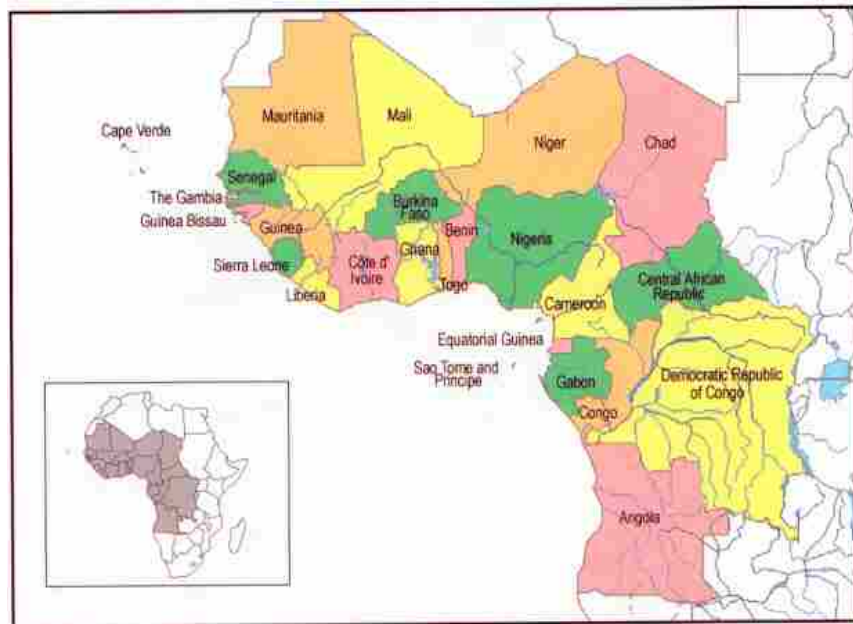


Fig. 1: Map of SFLP participating countries. The pilot projects in inland fisheries co-management are taking place in Burkina Faso, Cote D'Ivoire, Ghana and Mali, while the coastal co-management pilot projects are in Congo, Guinea, Gabon and Mauritania.

The Pilot Project implemented in inland waters from February 2003 to March 2006 covered some artificial lakes in Burkina Faso (the Bagré and Komienga dams), Côte d'Ivoire (Lake Kossou), Ghana (Volta Lake) and Mali (Lake Sélingué). Only limited work has been carried out at Lake Kossou because of the

political instability pertaining to the area during the pilot project period. The coastal waters pilot project, the implementation of which covered the period running from April 2004 to March 2006, concerns the Congolese coast, and a part of the coastal areas of Gabon, Guinea and Mauritania. These locations were selected by democratic process involving representatives from all 25 SFLP participating countries. As well as ensuring the sustainability of fishery resources in these lakes and coastal zones, a key objective of the two pilot projects is poverty reduction in fishing communities. These objectives are to be achieved, in a participatory way, through the promotion of a conducive policy and institutional environment for the communities, which responds to the preoccupations of the ongoing decentralisation policies that grant powers to the communities in the management of natural resources and local development. To achieve these objectives, a co-management based approach was developed, drawing from the SLA analytical framework to assess and address the multiple dimensions of poverty in fishing communities, and the principles of the CCRF to ensure management actions were compatible with responsible fisheries principles [3]. The pilot projects have also attempted to help build coherence between national fisheries policies and key development policies. In the highly indebted poor countries (HIPC) the latter are often outlined in national Poverty Reduction Strategy Papers (PRSP). SFLP-sponsored research has revealed that PRSPs and their associated medium-term expenditure frameworks do not consistently recognise and support fisheries in countries where the sector provides important contributions to employment, nutritional security and government revenues [4].

The SFLP approach to co-management has thus attempted to use micro-level participatory diagnostic processes to identify the nature of poverty and deprivation in riparian and coastal communities; to help develop the capacity of meso-level institutions to address these issues; and to work at national level to influence key policy processes that enable the required changes in local-level resource management and poverty reduction programmes.

Mindful of these micro-meso-macro links, this paper focuses on the experiences of integrating poverty-reduction initiatives at community and district levels (meso level) and strengthening co-management institutions at this same level (e.g. at a village and water-body or coastal district level).

CAPACITY BUILDING FOR PRO-POOR CO-MANAGEMENT

Since the co-management experience is still in its early years in much of West and Central Africa, it became necessary 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 participate effectively in the decision-making process. Participatory appraisals were conducted to obtain 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 (stakeholder analysis, gender analysis). The lessons drawn from these initiatives are used to illustrate the aspects developed in this paper.

Three factors - illiteracy, difficult access to credit and weak organisational capacities of fishing communities - were cited by fishing community focus-groups as the major reasons behind the low participation level of rural communities in decision-making, and especially in fisheries resource management. Consequently, it is assumed that if these issues are addressed, there would be good prospects for improving local-level resource management with synergistic impacts on reducing their vulnerability and poverty will improve considerably.

Illiteracy

For the inland waters pilot project, in spite of the fact that many different tribes live around the lakes, one of two local languages are shared by most members of the fishing communities. Although most of the members of fishing communities in Sélingué in Mali come from the central delta region of the Niger River, everybody in the community speaks *Bamanan*, the local language. In Ghana, the dominant local language is *Ewe*, and in Burkina Faso, *Bissa*, *Dioula*, *Gulmancéma* and *Mooré* are spoke fluently around Lakes Bagré and Kompienga.

In the Burkina Faso case study, 570 persons, 60% of which are women, have learnt to read and write in one local language or another through the adult literacy programmes offered by the SFLP programme [5]. This was achieved through a participatory approach: an agreement had to be reached with the fishing communities on which language to teach. Seventeen other adult literacy centres were opened for the first level, alongside 10 complementary training centres. It is only at the end of this cycle that the communities will develop writing skills in the real sense of the word. The post-training evaluation reveals that:

- 26 % of persons trained take down notes in an exercise book during meetings;
- 37 % keep account books (earning and expenses) and are able to record the weight of their products when they are being weighed, and can therefore verify the prices they are paid for them;
- 39 % record the deadline of the loans they take from microfinance institutions (MFI).

The improvement of their educational level had an impact on their access to credit, their income generating activities and their socio-professional organisations.

- **Improvement of the organisational capacities of fishing communities:** Adult literacy programmes helped to improve the organisational capacities of fishing communities. Today, 54% of the managers of fishermen's and women fish processors' groups and associations 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 bale to present their application to microfinance institutions, which resulted in their benefiting from training and loans.
- **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, administration, etc.) have more reliable reports. Information sharing has improved, as has 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 organisations discuss the profiles of their representatives at length and assign them on the basis of their skills and ability to defend their interests within the institutions. The leaders feel more strongly that they have been given a mandate. They have been formally legalised. Birthright (traditional rights to deference/reference) is gradually being replaced by the promotion of competence and efficiency.

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Access to the services of microfinance institutions

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 opportunities available to them as a result of their higher educational level [6]. They have become more receptive to sensitization campaigns

organised by the fund to support women's Income Generating Activities (*Fonds d'Appui aux Activités Génératrices des Femmes* - FAARF) on the need to become better organised. This support institution for women, which only had 12 clients before 2003, now has 120 women organised into a socio-professional organisation and a fisheries product processors union. The women have also been able to benefit from loans of close to 27 million CFA (US\$ 50, 950) which they used to improve their livelihoods (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.

It has become clear that the beneficiaries of adult literacy programmes respect the deadline for the repayment of their loans better than others, and their repayment rate was as high as 80% at the end of the period. Trust has so much improved between the communities and the microfinance institutions that some fisherfolk groups, unions and communities have even benefited from two sets of loans.

The financial failures previously experienced in fishing communities seem to have been as a result of a faulty information flow. Financial institutions did not know much about the fisheries milieu. They were applying management methods and procedures that were not well adapted to the seasonal nature of fisherfolks' activities and to their risk level. For example, in 2005, the famine in Burkina Faso compromised the repayment capacity of a group of women processors of fisheries products, some of the members of which used part of the loan to purchase some of their basic needs. Furthermore, the weak capacity of the fisheries groups or associations led to the inappropriate management of the loans granted. Some members of the organisations were granted sizeable loans which they could not, or did not want to repay because of their privileged position in the association. Meanwhile, others only received a pittance which they continued to repay even after the deadline, because of their spirit of solidarity or simply out of ignorance. It must also be pointed out that the support structures that served as intermediaries between the fishing communities and finance institutions have not always been transparent, and have sometimes even embezzled part of the loans.

The training that is now being provided to support the loans granted has helped to introduce dialogue and learning-by-doing to the community-based democratic process. It has also helped to promote better information flow, and has discouraged the tendency to hoard information, which is a common practice in rural fishing communities. Adult literacy has, to a large extent, led to the practice of note-taking, thus facilitating feedback on the deliberations of meetings to the groups and associations by those delegated to attend the meetings on their behalf. The associations and producers unions have become more rational in their management of loans. The members who meet frequently to discuss their problems know and trust each other. The group receives all necessary financial information and also selects members and monitors risks. Financial information (reputation and solvency) on the members has become a determinant factor in defining relationships within the group. This information is also used to filter the admission of new members into the association. The cost of access to financial information is therefore a discriminatory factor used in admitting new members to the group. However, it is precisely the quality of information that preserves the social dimension and solidarity. When a member of the group finds himself unable to meet the deadline, an internal arrangement in the form of a collection from members (*esusu*) is made to support him.

More and more, dialogue is being used between the beneficiaries of loans and microfinance institutions. This closer tie has helped to promote a better understanding of the peculiarities of fisheries, and to ensure that the concerns of fishing communities receive better attention. The deadlines for repayments are negotiated and even microfinance institutions (MFI) agree among themselves on the need to define intervention modalities that are specific to fishing communities. This favourable environment has made it possible for the associations and unions of the two lakes to mobilise more financial resources (38,000,000 F CFA, a part of which is reserved for financing income generating activities among others (Table 1).

Table 1: Credit allocation to different purchases and recurrent expenditures (number of beneficiaries), Lakes Kompienga and Bagré, Burkina Faso.

	Purchase of fish	Equipment		IGA		Family		Others
	Women	Women	Men	Women	Men	Women	Men	Men
Lake Kompienga	60	10	70	10	10	5	5	5
Lake Bagré	25	5	50	35	15	25	20	10

- On Lake Kompienga, women and men allocate the larger portion of the loans they receive to fishing activities (operating funds for the women to enable them purchase fish, and fishing equipment for the men). Only 10% of the loans is reserved for income generating activities. Women allocate only 5% for household expenses as against the 10% allocated by men.
- In Bagré, the situation is completely different. The women assign 25% of their loans to operating funds, 35% to income generating activities, and 20% to household expenses, whereas the men purchase equipment with half the amount (50%), diversify with 15%, and reserve 15% for household expenses.

Although the natural reflex of the fishermen or women fish sellers and fish processors is to purchase equipment to improve their business, it must be pointed out that their strategies are influenced by various factors. The fisheries sector in Bagré is dominated by nationals. They are fisher-farmers and not only do they have access to land, but they also have some authority over the way the water body is managed. Households share their activities between fishing and other agricultural activities. This community, unlike Kompienga, tends to invest less in fisheries. The communities around Lake Kompienga are made up predominantly of foreigners. Rarely do they have access to land. They invest a considerable part of their operating funds in fishing. Access to credit merely helps to intensify pressure on the fisheries resources. It has been noticed that in the absence of an alternative, access to microfinance institutions can become a threat to the management of fisheries resources, but it can also represent an opportunity when backed by a co-management policy. The loans in fact proved useful in the opening of a fishing gear store and made it possible for the fishermen to purchase fishing gears that comply with the regulations. This in turn facilitated the implementation of management measures.

Alternative income generating activities

Generally speaking, fishing communities, like all other rural communities, tend to diversify their activities. It has however been observed that fishing communities that benefit from additional funding use their loans first and foremost to procure equipment for fishing and fish processing activities, the latter in the case of women [7]. 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 and vegetable gardening. Livestock farming is the most profitable income-saving sector for fishing communities around lakes Bagré and Kompienga in Burkina Faso. It is also this sector that has existing traditional technical skills in fishing communities.

In Ghana, different types of training were provided to fishing communities. These cover a wide range of activities like snail breeding, batik, cosmetics production, bakery and Kente weaving, etc.

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 [8]. 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.

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. However, what has often been observed is that the loans are actually used to purchase fishing materials that comply better with the regulations. As a matter of fact, fishermen that are organised with support contribute to the reduction of vulnerability, and in the long term, participate in responsible fisheries by mobilising, as has already commenced, a new labour force outside the fisheries sector.

THE REHABILITATION OF THE PARTICIPATORY RIGHTS AND POWERS OF FISHING COMMUNITIES THROUGH REFORMS IN POLICIES

For a very long time, the centralised management of natural resources had concentrated decision-making powers in the hands of the government. Latest developments in the policy and institutional framework have instead promoted responsibility-sharing between all the partners in general, and between fishing communities and government agencies in particular.

Latest developments in national fisheries management

Natural resource management policies have evolved considerably in quite a few countries. The participation of the users of the resources has now been incorporated into national policies and legislative and regulatory frameworks. In spite of the fact that the lakes remain the property of the State, room had been made for fishing communities to participate in decision-making, and they have also been allowed to take up some of the responsibilities for protecting, safeguarding and restoring the resource.

In Burkina Faso, the 1997 forestry code defines two lake management methods on the basis of the lake sizes. Lakes that are less than 5000 hectares may be handed over to a private or corporate entity to manage, while lakes that are bigger than that remain the property of the State, although their management can be handed over to a management committee comprising representatives of fishing communities, the local administration, and other stakeholders (NGO's, MFI, etc.). These lakes are set up in Aquaculture Zones of Economic Interest (AZEI) and the Zonal Technical Unit (ZTU) is responsible for their technical and administrative management.

In Mali, the fisheries law makes it possible for local community groups and fishing communities to draw up local fisheries agreements that take the peculiarities of each type of fishery activity into consideration.

In Ghana, the decentralisation process that became effective in 1993 transferred management powers, including fisheries-related matters, to District Assemblies.

In the Congo, the ongoing reform of fisheries legislation emphasises the participation of fishing communities in the management of fishing activities. Furthermore, a fisheries management fund (*fonds d'aménagement halieutique* - FAH) was created to support activities geared at fisheries promotion and development.

Finally in Guinea, the 1985 law on decentralisation encourages the creation of development committees for landing sites, thus recognising the possibilities offered by fishing communities' participation in

fisheries management. The decree (2006) on small-scale fisheries regulation recognises the participation of communities in the management of fisheries resources, and enshrines the legal existence of landing site development committees (*Comités de développement des débarcadères* - CDD), whose major mission is participation in drawing up management measures for coastal fisheries, monitoring of the application of the measures, conducting participatory surveillance, and promoting the development of the landing site.

The policy framework affirming the principle of community participation in fisheries management thus becomes a prelude to the establishment of co-management institutions [9,10].

Co-management institutions

The implementation of these policies encouraged the promotion of community-based socio-professional organisations and the establishment of co-management institutions at meso level. These co-management institutions take a variety of forms depending on the country concerned. The most common form however includes grass root committees (micro level) made up mainly of the different components of the community (fishermen, women fish processors, village heads, fish traders, etc.) and a multi-disciplinary organisation at meso level which includes fishing communities, the local administration, NGO's, MFI's, etc. In some cases, this committee acts in an advisory capacity, and in others, it participates directly in decision-making.

In Burkina Faso, two management committees were set up, one on lake Bagré, and the other on lake Kompienga. 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, NGO's, MFI's, representatives of traditional rulers, and representatives of socio-professional associations. The committee has a legal and legitimate status. Its legal status has helped it to rally the administration around the co-management process, and to restore the confidence of fishing communities which had lost confidence in the administration and their policies because of the many promises they had broken in the past.

The law defines their mandate. The committee approves and validates the co-management plans and the rules of procedure, and creates specialised commissions to address specific management issues. It sets up surveillance committees in fishing camps. It lobbies for the promulgation of a decree on the access of fish traders to fish landing sites, and for another on the creation of a local fisheries management fund. The committee organises enlightenment campaigns in fishing camps and trains the members of the surveillance committees with the assistance of the police and the gendarmes to help them improve their patrolling exercise while still respecting fisheries laws. The result is that surveillance committees now organise their outings jointly with water and forestry officers and the gendarmes.

The committee ensures the protection of fish habitat by creating fish reproduction zones and protecting the water banks.

The surveillance committees also have a legal status. Community-based socio-professional organisations and their unions have accreditations that make them credible representatives of fishing communities in their negotiations with other partners, administrations, MFI's NGO's, 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. This resulted in the agreement of fishing communities to the measures adopted in the management of the resource, and helped them to appreciate their newly recovered rights in this area better, even though they now have to share those rights and responsibilities with the State. Fishing committees feel they have been rehabilitated and have gained recognition as bona fide members of the national community. They are no longer merely consulted, but are now authorised to draft management

rules, the application of which they are also expected to oversee.

Sustainability of the co-management process

Although a recent development, the ongoing decentralisation policies of most of the countries offer opportunities for consolidating the co-management process through local development, partnership, the transfer of power, as well as through the autonomous management of the natural resources by local community groups.

Within the context of local development, some projects and NGO's are embarking on actions to promote rural communities. Fishing communities are however often left out. In Burkina Faso, the management committee organised a roundtable for donors, which brought together all the NGO's, projects and technical departments operating in the area around Lake Kompienga. The co-management plan for the lake was shared with participants, and at the end, each one made some financial and technical commitments as its own contribution towards the implementation of the plan. The NGO, *Tin-Tua* for example, undertook to train 62 persons in their adult literacy programme, while the development cooperation of the Netherlands (SNV) promised to provide assistance to build up the capacity of management committees and socio-professional organisations.

In Ghana, the recognition given to district committees made them eligible for allocation in the budget of the District Assemblies, and authorises them to tax fishing activities to support the operations of Zonal committees and community-based fishing committees.

LESSONS LEARNED

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

- Better circulation of, and access to information within the socio-professional organisations, and in the co-management structures, help to build up the confidence of partners, increase transparency, and gives legitimacy to the decisions taken. The agreement of partners translates into compliance, thus facilitating implementation. Sanctions imposed for non-compliance are also accepted by all. 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.
- 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 fisherfolk 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. This is a way of reducing fishing effort. Furthermore, income-generating activities mobilise some of the members of households who would otherwise have been involved in fishing activities if, for example, they were not busy with livestock farming and petty trading.

- 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 multi-stakeholder context [11].
- 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.
- Functional co-management institutions represent frameworks and tools for dialogue with the institutions of the decentralisation process. They can influence the decisions of local community groups 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 restoration of fisheries resources is a determinant factor in the reduction of poverty and the vulnerability of fishing communities. The livelihoods of fishing communities in the local development process and partnership open them to new prospects that will help them improve their living conditions, while still protecting the resource.

REFERENCES

- [1] PMEDP, 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. Programme pour des Moyens d'Existence Durables dans la Pêche, FAO/DFID, Cotonou, Benin , 40p. [see www.sflp.org for all SFLP reports]
- [2] PMEDP, 2004. Document du projet pilote aménagement participatif des pêches en zone côtière au Congo, Gabon, Guinée et Mauritanie, Programme pour des Moyens d'Existence Durables dans la Pêche, FAO/DFID, Cotonou, Benin 35 p.
- [3] Allison, E.H. and B. Horemans, 2006. Putting the principles of the Sustainable Livelihoods Approach into fisheries policy and practice. *Marine Policy* 30, pp 757-766.
- [4] Thorpe, A., C. Reid, R. van Anrooy and C. Brugere, 2004. African Poverty Reduction Strategy Programmes and the fisheries sector: current situation and opportunities. *African Development Review* 16(3), pp 211-222.
- [5] PMEDP, 2006a. Etude d'impacts de l'alphabétisation sur les ménages, les groupements productifs et sur la gestion participative des ressources halieutiques (Burkina Faso). Programme pour des Moyens d'Existence Durables dans la Pêche, FAO/DFID, Cotonou, Benin, 77p.
- [6] PMEDP, 2006b. 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). Programme pour des Moyens d'Existence Durables dans la Pêche, FAO/DFID, Cotonou, Benin 66p.
- [7] PMEDP, 2006c. Impacts des activités génératrices de revenu sur les moyens d'existence des communautés de pêche et sur la gestion des ressources halieutiques (Burkina Faso). Programme pour des Moyens d'Existence Durables dans la Pêche, FAO/DFID, Cotonou, Benin, 39p.
- [8] Smith, I.R. (1981). Improving fishing incomes wehn resources are overfished. *Marine Policy* 5, pp 17-22.
- [9] SFLP. Dossier: Co-management. *SFLP liaison bulletin* n° 19 & 20. Cotonou, Benin; June 2005. p.3-35, [available from www.sflp.org]
- [10] SFLP. Dossier: Politiques. *SFLP liaison bulletin* n° 21 & 22. Cotonou, Benin; December 2005. p.3-51, [available from www.sflp.org].
- [11] PMEDP, 2005. Synthèse des leçons apprises. Atelier du Programme. Dakar, Sénégal, 21-25 novembre 2005. Programme pour des Moyens d'Existence Durables dans la Pêche, FAO/DFID, Cotonou, Benin 22p.