



Economic crisis, ethnic clashes, and livelihoods on Lake Kossou, CÔTE D'IVOIRE

This study exists within a larger pilot project designed to reduce poverty in artisanal fisheries of West Africa by improving institutional links and facilitating the co-management of natural resources. A poverty profile of Lake Kossou was undertaken to identify target beneficiaries, to understand local definitions of poverty, its distribution, causes, and magnitude, and to provide recommendations for poverty alleviation and natural resource management.

LAKE KOSSOU: Crucible of peoples

Of the 630,000 people living around Lake Kossou, the vast majority practice agriculture as their primary activity (85% of households). There has been no professional fishing sector since 2001, when migrant fishermen from Mali were expelled from the area following a series of conflicts with native residents. Those who fish today are primarily young men experimenting with basic technology, who rarely venture far from shore.

Native agriculturalists (primarily Baoulé, Gouro, Ayaou and Yowre) historically cultivated coffee and cocoa in fields on both sides of the lake. Coffee and cocoa continue to be favored crops despite their limited return. Several factors have decreased the profitability of cash crops: First, the construction of Kossou dam in 1971 flooded prime agricultural land. Second, the reoccurrence of brush fires in the pre-forest and savannah zones has degraded soil fertility over the last ten years. Finally, the drop in world market prices for coffee and cocoa has severely limited farmer purchasing power. In response, the government has encouraged residents to diversify into fishing and farming alternative crops. Villagers are reluctant to change, however, as they recall the high past profitability of coffee and cocoa. Nonetheless, as youth turn more to farming, agricultural activity has increased, and a greater proportion of alternative crops are cultivated. While new farming practices are explored, there has been little expansion or development of the fisheries sector.



Sustainable Fisheries Livelihoods Programme in West Africa

The main objective of SFLP is to assist the artisanal fisheries communities (coastal and inland) in improving their livelihoods through the sustainable use of aquatic resources, thus reducing poverty.

The SFLP assists governments in drawing up policies and action plans that take into consideration the principles of the Code of Conduct for Responsible Fisheries (CCRF) and follow the Sustainable Livelihoods Approach (SLA).

It also assists the grass-roots communities to develop their capacity to participate more effectively in the planning and development of the fisheries and thus strengthen or even create, a link between the communities (micro level) and the local, regional and national structures (meso and macro levels).

The development of methods to conduct poverty assessments in fishing communities has been jointly funded by the SFLP and SIFAR (Support Unit for Fisheries and Aquatic



Food and Agriculture
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Support unit for
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METHODOLOGY

The study was conducted by an interdisciplinary team May to July, 2002, and occurred in three phases: **(1)** a literature review and secondary data collection, **(2)** an interview phase with key informants from institutions in the region, **(3)** focus groups using participatory methods in a representative sample of villages (seven in total) and **(4)** a socio-economic questionnaire administered to 104 households across the seven villages.

Four of the five departments that border the lake were sampled. Two villages per department were chosen through stratified sampling based on size, proximity the flood plain, and whether the village had ever been relocated. The average household size of the survey sample is 11, ranging between 3 and 29.

The Distribution of the Population across Poverty Groups

The distribution and the multidimensionality of poverty were analyzed using the fuzzy sets methodology. In this method, various aspects of community and household life are measured through indicators, and households are ranked and classified into groups. The table to the right presents the indicators developed with respect to the survey results. A value was calculated for each household, for every indicator, and assigned a range between 0 (the best situation, in green) and 1.00 (the worst situation, in red). An overall composite of a sub-set of sub-indices, called the General Poverty Index, provides a rough idea of the stratification of the overall population. The quartile division of this index corresponds to local descriptions of four general socio-economic classes (see figure 1). The percentage distribution of the population across quartiles is provided in the graph. None of the households interviewed fall into the extremely poor category (red, 0.75 – 1), 13% are moderately poor (orange, 0.0 – 0.75), 76% are moderately better off (yellow, 0.25 - .05), while 11% are better off (green, 0 – 0.25).

POVERTY INDICATORS

Housing
Assets
Household Characteristics
Income generating activities (fishing and other)
Agriculture
Credit and savings
Income
Expenses

While the classification into four poverty classes presents a general distribution of poverty, there are important differences among the villages surveyed. The entire villages of Dieviessou and Angovia, for example, were relocated when the original villages were displaced by the creation of the lake. Households in the relocated sites suffer from poor access to cultivable land due to a lack of legal, usufruct or derived rights or title.

Figure 1

Distribution of the General Poverty Indicator across four ordinal classes (values in %)

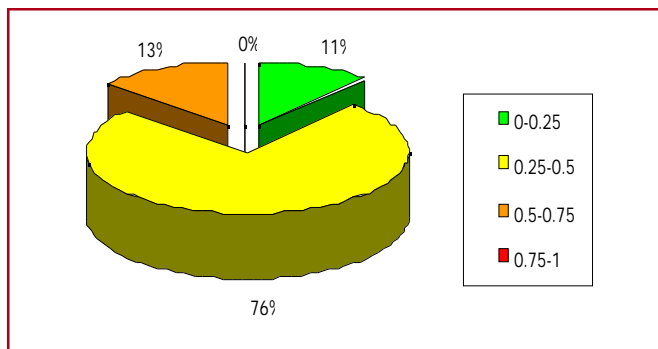
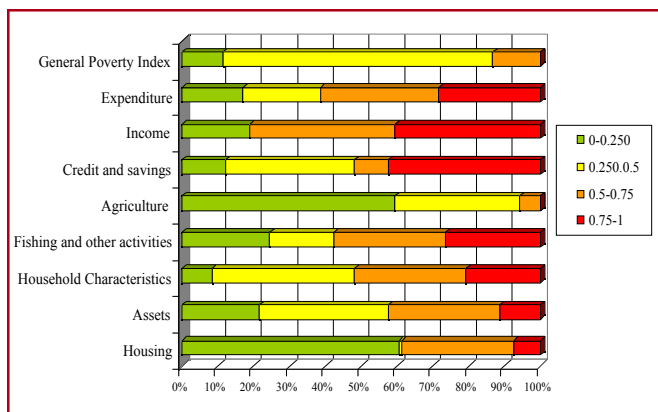


Figure 2

Distribution of households along different poverty axes on Lake Kossou



Underlying causes of poverty: local perceptions

Researchers asked residents and institutional informants their perceptions of the primary causes for local vulnerability. The top responses were the loss of coffee and cocoa plantations over the past three decades and the devastating drop in commodity prices since the late 1980s. Additionally, locals cite fluctuating rainfall and climate variability as severe impediments to developing and investing in new agricultural techniques.

Critical Axes for Improving Livelihoods

Although poverty is the result of complex chains of events, three critical axes are highlighted here as important key leverage points affecting poverty in the two lake communities :

Access to savings and credit

n Banking institutions and microfinance opportunities exist in several of the villages visited (Bouaflé, Yamoussoukro, Bouaké, Sakassou, Tiébissou et Béoumi), but they are not wide reaching and remain little known in the communities.

n Since independence, financial support for fishing and agriculture has traditionally come from agricultural credits established by the Banque Nationale de Développement Agricole (BNDA). With the closure of this bank, there are no longer any financial intermediaries for securing credit among the poor.

n One notes, however, the existence of several microfinance institutions (FLEC, COOPEC) that lend credit to groups for equipment renewal, but these are limited in scope (such as COOPEC in Bouaflé). Only 21.7% of people interviewed claim to have benefited from credit from a financial institution, from friends, or relatives. The situation has not favored the development of a credit system that could function independently in the area.

n Savings remain meager despite the elevated revenues of some fishing households during the good season. Without savings, little money is invested in other productive activities. Revenues earned during the fishing season and harvest period tend to be spent on perishable items, leaving little for capital investment. Only 41 % of the people surveyed claim to possess savings. Close to half of these (21%) are indirect savings through revolving credit groups.

Health and educational infrastructure

n Zones lacking health centers are covered by mobile teams from regional centers. Teams train community agents on site who assist local populations in primary health care.

n Training and agricultural extension services exist in all departments, covering 3 to 5 villages per office. Their role is to increase productivity by training farmers in new methods, and to serve as interface between farmers and other sectors (microfinance, fishing, etc.). These efforts are made primarily through ANADER via agents based in village centers. Services are limited because of a lack of personnel, material means, and finances.

Women's livelihoods

n Long overlooked or even marginalized in development planning, women are viewed today as essential to familial and social survival. Their social status as mothers and wives has long hidden their economic and social contributions to food crop production, small commerce, and the conservation and processing of fish and agricultural products.

n It is women who are responsible for securing fishing materials and for revitalizing the fish markets of the larger towns, causing the Préfet de Sakassou to comment that « the net is thrown by the fishermen at Kossou, but it is pulled from the water by the women fish merchants of Bouaké ».

n The household survey reveals an average family size of 17 (excluding single unmarried households), a number high above the national average. Women have extensive household responsibilities around lake Kossou.

BUILDING BLOCKS FOR A BETTER FUTURE

The cooperatives and village groups of Lake Kossou today play an important role in the economic and social development of the region. The villages that have seen the most economic expansion have an active, well-organized population. In addition to their successes in channeling information, villages with organized groups are better positioned to extend and finance development projects.

Across the lake there is strong organization at the village level, in which several nobles assist a local chief. The members of different poverty groups participate in varying degrees to village activities. 63,6% of men and 47,7% of women surveyed actively belong to political parties regardless of poverty group. However, those belonging to the very poor and poor groups are less active in socioprofessional groups, to which only 49% of men and 30,8% of women belong. Young fishermen demonstrate a strong desire to organize formally and have formed the basis for a lake-wide fisherman's association.

Women fishing merchants, although by no means well off, are grouped in cooperatives corresponding to the different lineages, and together they anticipate the eventual establishment of a central cooperative operating across Lake Kossou. Well organized, the women fish merchants of Béoumi have already benefited from a workshop on simplified expenditure accounting by INADES. As a result of their efforts, they have overcome budgeting problems among their members, and have financed a large portion of local fishing production, purchasing and lending fishing materials to fishermen with whom they contract.

Actions to Improve Livelihoods of Fishing Communities on Lake Kossou

Actions to improve business opportunities

n The pirogues used today are prefabricated from an assemblage of planks. Orders for new boats are given to the chiefs of department. Many capable builders live in the heart of the communities. Their training in boat-making techniques will reduce the dependence on external sources.

n The majority of lakeside villages are connected to the electric grid, but the production of ice for use in fish storage is all but inexistent across villages. The introduction of better cold storage would decrease post-catch losses.

n Using labor for the production of freezer ice would create employment while improving the quality and freshness of catch.

n A wetland zone of more than 10,000 hectares forms each year around the lake, favorable to food crop cultivation between November and July. This represents an opportunity to grow off-season vegetables (onions, egg-plant, tomatoes, cabbage) using a low-cost irrigation system and shallow hand pumps.

n For smaller parcels, watering could be accomplished manually with an adapted water can commonly found in markets. Women's organizations in the Koforidua region of Lake Volta (Ghana) successfully cultivate and water small parcels in a area with similar ecological characteristics as Lake Kossou, and can be taken as example.

Building institutional capacity

n Educational campaigns on establishing saving accounts, particularly targeting young fishermen.

n Establish a line of micro-credit with organizations such as COOPEC to support certain revenue generating activities especially among women.

n Train youth in agricultural, livestock raising, and fishing techniques with the support of ANADER.

n Train those in leadership positions within various associations and cooperatives on micro-business management.

n Extend construction projects for educational infrastructure and accessible health facilities in all villages.

n Make local populations more aware of good hygiene and waste disposal practices.

n Aide in popularizing the use of impregnated mosquito nets to combat malaria, and advise residents to consult health centers to prevent and treat communicable diseases.

n Train institutions in participative management and prepare them for more effective comanagement of natural resources so that managers and communities work together to conserve resources.

n Organize a workshop to present the results of this analysis and other studies around Lake Kossou. Such a workshop would bring all actors to the same level of information, create a network of exchange, harmonize points of view, and identify areas for common investment?

Improving the conditions for women

n Literacy and provide incentives to encourage school attendance among girls.

n Reinforce the technical capacities of women in agriculture, livestock raising, processing and product marketing. Diversify agricultural products (soy or papaya, for example). Equip and train women for the production of off-season food crops, manioc processing, and the fabrication of traditional soaps.

n Promote savings (tontines or bank accounts) and facilitate access to credit for women.

n Facilitate collective agreement on equitable rates between women merchants and fishermen, as well as fair prices for entrant supplies.

n Create new market prospects (strategic points for sale, centers for collection).

n Inform both men and women on family planning resources and responsible parenting.

For the full poverty profile for Lake Kossou contact : Fabio Pittaluga (Fabio.Pittaluga@fao.org)

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