

POST-HARVEST FISHERIES AND POVERTY IN GHANA

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The Post-Harvest Fisheries Sector in the Global Context

The post-harvest fisheries sector is very much under-represented in development policies and plans of most countries. The boundaries between the sector and other economic activities (such as trade, agriculture, transport and credit) are often unclear and this makes it difficult to fit activities in the sector into a clear sectoral box. But the integration with areas such as women's affairs, food security, and poverty reduction, makes it especially important as a focus for development.

One of the main reasons that it is under-represented is that so little is actually known about the post-harvest sector, or that knowledge is rarely brought together in a systematic way and used in formal planning processes. However, the contribution that post-harvest fisheries plays in many economies is considerable as outlined below.

Employment

It is estimated that globally there are about 35 million full-time and part-time people employed in primary production in fisheries (fishing and aquaculture). Many are involved in some aspects of post-harvest activities, even if it is not their major focus of work. This figure has been steadily growing at an annual rate of 2.2% since 1990 (FAO, 2002). There are also estimated to be some 20 million people involved in small-scale processing, marketing and trading (McGoodwin, 2001).

Livelihood support

If the fishers, the secondary workers and ancillary workers, and their families are taken into account some 200 million people are supported by small-scale fisheries worldwide, of which at least 100 million depend on the post-harvest sector (McGoodwin, 2001).

Poor women fish traders



animal protein (FAO, 2002). About 56% of the world's population derives at least 20% of its animal protein from fish. In 2000 the global production of fish was in the order of 130 million tonnes of which about 73% was from capture fisheries and 27% from aquaculture. Of this production, 74% was used for direct human consumption giving a global average annual food fish supply of 16kg per person (FAO, 2002).

Foreign Exchange

For some countries, especially those endowed with stocks of shrimp and other high value resources, export earnings from fish and fisheries products now constitute a major part of foreign exchange earnings. Global fish trade in 2000 was reported to be US\$55.2 billion and is growing at an annual rate of 4% (FAO, 2002). This trade

growth is particularly important for developing countries. Net export trade from these countries rose from US\$10 billion in 1990 to US\$18 billion in 2000.

Resource Sustainability

Many of the world's fisheries resources are at or near the point where maximum sustainable yields can be harvested. The post-harvest fisheries sector contributes to the better use of fish resources by ensuring that the value of the highly perishable products are maintained in quality and price along the food chain.

Poverty reduction

Perhaps one of the most important contributions of the post-harvest sector is to poverty reduction. FAO (2002) estimates that there are some 5.8 million fishers earning less than one US\$/day globally and a further 17.3 million in upstream and downstream activities such as fish processing, trade and boat building.

Food Security

Worldwide over a billion people depend on fish to supply at least 30% of their

The "Poverty and Post-Harvest Fish Utilisation in Ghana" Project was implemented by IMM Ltd in the UK in partnership with the Directorate of Fisheries in Ghana. The Project was funded by the UK Government's Department For International Development (DFID) through the Post-Harvest Fisheries Research Programme. This briefing note is an output from the Ghana Poverty project (R8111). It is designed to briefly inform policy-makers, planners and implementers about key issues concerning the livelihoods of poor people in the fisheries post-harvest sector.

The Post-Harvest Fisheries Sector in Ghana

Ghana is no exception to the wider global picture in the post-harvest fisheries sector. The sector is poorly understood and represented in policy but is one of the most visible and depended on sectors in the economy.

Fisheries in Ghana contributes significantly to national economic development objectives related to employment, livelihood support, poverty reduction, food security, foreign exchange earnings and resource sustainability.

Employment

The fishing industry provides employment for many rural and urban people, with an estimated 10% of the population thought to be involved in fisheries activities. The sector is also important from a gender perspective. Men are involved in fish harvesting, undertaking the main fishing activities in the artisanal, semi-industrial and the industrial sectors while women are the key players in on-shore post-harvest activities, undertaking fish processing, storage and trade activities. Many are also engaged in the growing frozen fish distribution trade as well as marketing fish within and outside the country. Major players in the post-harvest fishery sector are the fish mummies who informally fund many activities in the sector.

Livelihood support

Whilst the fishery sector as a whole is thought to support the livelihoods of over 1.5 million people in Ghana (FAO 1998), there are no specific data on the numbers of people directly or indirectly benefiting from the post-harvest sector and it is often almost impossible to separate out post-harvest livelihoods from fisheries livelihoods in general. The same people are often engaged in both, or roles in the two sectors are divided between household members so that benefits from harvesting and from post-harvest activities are pooled. It is probable that almost all fisheries-related livelihoods in the country either include post-harvest fisheries activities or are closely affected by them in one way or the other (Mensah et al 2001).

The post-harvest sector provides a large and varied range of livelihood activities, not only for fishermen, women fish processors and the traders who dominate

the sector at landing sites as well as in urban and rural markets, but also for a vast number of people engaged in the various stages of the post-harvest process. These include those employed in processing and trading, labourers who pack, store, load, unload and transport fresh and processed fisheries products on foot or by trolley for short distances, people providing transport and storage services, ice plants, export processors, cannery workers, fishmeal manufacturers and their staff, and those engaged in the production of packaging for different types of product. There are also those who supply production and processing inputs and services such as boat builders, mechanics, timber and fuel wood providers, food vendors and drinking bar operators and many other supporting activities.



Women processing sardinella.

The livelihood opportunities provided by the post-harvest sector range from full-time employment to seasonal, occasional or opportunistic involvement in different stages of the post-harvest chain. This range of opportunities is important as it allows engagement in the sector to be combined with other livelihood activities allowing people in coastal and lakeshore areas to diversify their livelihood strategies and cope with seasonal or cyclical variations in access to other options (Campbell & Townsley 1995, Mensah et al 2001).

Poverty reduction

Furthermore, the role of the sector in terms of poverty reduction is very important. Many poor and vulnerable people rely on the fisheries sector either directly or indirectly for their livelihoods and many rural and urban consumers of fish are poor.

Post-harvest fisheries activities clearly provide a wide range of full-time and seasonal livelihood opportunities to many vulnerable people and the loss or

decline of these opportunities would significantly increase the risks for many people already living on the margins of poverty. It is significant, that in spite of the difficulties faced by post-harvest operators and fishers on Lake Volta there is considerable in-migration to the area, especially from coastal communities that are faced with declines in production. New entrants take up fisheries associated activities, suggesting that fisheries offer a fall-back livelihood strategy for many displaced from other activities in other areas (Mensah et al 2001). This may constitute an important contribution to poverty reduction although exact figures on its extent are not available.

Food Security

Fish is recognised as the most important source of animal protein in Ghana (Aggrey-Fynn 2001) and is consumed by most people in all regions of the country from the rural poor to the urban rich. Various species of marine and inland fish are available in a variety of different product forms and can be bought in quantities to suit the buying power of the consumer. Fish is a very important food item in the Ghanaian diet. It is expected to provide the consumer with about 60% of his or her animal protein intake.

Although current information is not available, average per-capita consumption of fish is thought to be high at between 20 and 25 kg - the world average is 13 kg. In 1987 marine fish contributed 85.5% and inland fish 14% of per capita consumption (Vanden Bossche & Bernacsek 1990). It makes up 22.4% of food expenditure in all households and 25.7% in poor households and is thus a very significant part of the diet (Campbell & Townsley 1995).

Foreign Exchange

Fish is classified as a non-traditional export (NTE) commodity. In terms of foreign exchange earnings it is the second most important NTE after horticultural products making up 5% of total NTEs. Fish and seafoods increased their share of non-traditional agricultural export products from 25% in 2000 to 33% in 2001 (ISSER 2003). With respect to national economic development, increasing trends in fish exports reflect a major advance in the pursuit of

national non-traditional export policy objectives (Mensah et al 2003). Exports generate foreign exchange and revenue in the form of taxes for the government.



Frying fish.

Resource Sustainability

The fish stocks in Ghana are generally thought to be at or near their maximum levels of exploitation. Future expansion in production is likely to come from aquaculture which has been slow to develop so far.

The post-harvest fisheries sector can contribute significantly to improved use of the existing fish resources by ensuring that the fish produced is fully util-

ised.

Linkages with Other Sector

The **gender aspects** of the post-harvest fisheries sector make it a key sector where women are the heads of poor households. This is particularly important where migration plays a major part in the economy, and this is particularly so in the fisheries sector. But the involvement of women in the sector can bring linkages with other cross-cutting issues related to land tenure in some areas, governance and women's role in decision making processes, and access to credit.

The **diversified livelihoods** of many workers in the post-harvest fisheries sector means that strategies in rural agriculture can have direct impacts on the post-harvest fisheries sector. Changes in employment opportunities in agriculture can often affect labour mobility into and out of fisheries.

The perishability of fish means that it must be transported quickly if its value is to be maintained. This ensures the linkages between post-harvest fisheries and **transport policy**.

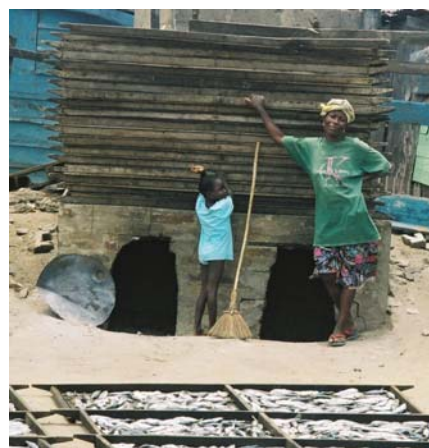
The role of fisheries in **food security** is often understated. Fish plays a vital role in health and nutrition especially for particularly vulnerable groups such as pregnant women and small children.

The high mobility of people in the fisheries sector, both harvesting of fish and fish trade, makes them susceptible to HIV infection. This **health** issue is be-

coming a particularly important issue in many communities especially those in remote locations where access to infrastructure and services is limited.

As income levels for many involved in the fisheries sector decline with the seasonality of fisheries and increased competition over resources, so indebtedness is on the increase. In some cases this has led to the negative livelihood strategy of taking children for school and forcing them into **child labour**. In extreme cases the trafficking of children has been noted. The desperation of people who take this course can hardly be imagined but it is an increasing phenomenon in the sector.

These issues and cross-linkages suggest the importance of the post-harvest fisheries sector as a sector which links many others together and which requires new approaches to address.



Chorker smoker

The Poverty and Post-Harvest Fish Utilisation in Ghana Project

In response to the lack of understanding of the post-harvest fisheries sector both globally and in Ghana, the UK Government's Department for International Development (DFID), through its **Post-Harvest Fisheries Research Programme (PHFRP)**, decided to fund research into the livelihoods of poor people in the sector. The research project, called "**Poverty and Post-Harvest Fish Utilisation in Ghana**" was implemented as a partnership between the Directorate of Fisheries Ghana and IMM Ltd of the UK.

The **PHFRP** is one of a number of natural resources research programmes funded by DFID. In line with the Mil-

lennium Development Goals one of the central aims of DFID is to **eliminate poverty** by **improving the livelihoods** of poor people in developing countries. The PHFRP aims to produce benefits for poor producers, processors, traders and consumers through the application of new knowledge to the improved utilisation of fish from fisheries in South Asia and East and West Africa.

Recognising the potential for reducing poverty in the post-harvest fisheries sector, DFID commissioned the current research to develop field tools to both understand post-harvest poverty and to develop strategies for poverty reduction. Key outputs from the project in-

clude the *Ghana Post-Harvest Fisheries Overview*, *The Fisheries Post-Harvest Overview Manual (FishPHOM)*, *the Post-Harvest Livelihood Analysis Tool (PHLAT)*, *the Ghana Post-Harvest Livelihoods Report, A Framework for Linking Poverty to Policy in the Post-Harvest Fisheries Sector*, and a *Directory of Participants in the Sector*. FishPHOM and PHLAT are tools for global application, these are outlined below.

FishPHOM

FishPHOM grew out of a need to systematically understand and respond to the problems facing the fisheries post-

harvest sector and particularly to respond to change in the sector. FishPHOM provides a systematic analysis of the sector, which enables priority areas of activities to be identified and combined to emerge as principles for intervention. This provides a sound basis for policy formulation, planning, research and institutional collaboration and cooperation. The manual was used in Ghana to produce the Ghana Post-Harvest Fisheries Overview.

PHLAT

The Project also developed the Post-Harvest Livelihoods Analysis Tool (PHLAT) as a means of working with poor stakeholders to understand the circumstances surrounding their lives, the problems that they face, their potential for change and ways forward to help reduce that poverty by linking in to macro-level policy initiatives such as the Ghana Poverty Reduction Strategy.

PHLAT was developed and tested in three districts in Ghana. Two of the districts (Asuogyaman and Jasikan) are in the Eastern Region and are associated with the Lake Volta fishery, the third district is a coastal district – Awutu Effutu Senya District which is in the Central Region.

Linking FishPHOM and PHLAT to wider policy

Whilst the PHLAT feeds into and is informed by the FishPHOM, these two are not isolated from wider policy processes and policy implementation activities. PHLAT is guided by the national Poverty Reduction Strategy (PRS), particularly the national characteristics of poverty, poverty distribution, and the factors influencing poverty. In turn the PHLAT provides useful information about the post-harvest sector that can assist with the design and the implementation of PRS. In particular PHLAT feeds into local-level PRS implementation and into district-level plans and projects. It is a valuable tool for providing local knowledge about local problems for local interventions. It can also be a direct way in which government departments and other development practitioners can become actively involved in decentralisation processes.

The Overview produced through the use of FishPHOM acts as a conduit for informing national PRS design and implementation and will eventually incorporate PHLAT information that is more generic and applicable to national planning. In

turn PRS informs wider national development objectives, and is guided by them, and feeds in directly to the achievement of Millennium Development Goals. FishPHOM also provides an opportunity for the Directorate of Fisheries to become actively involved in the planning and implementation of the PRS.

FishPHOM also has a direct link into FAO's Code of Conduct for Responsible Fisheries (CCRF). It uses the CCRF as a source of guidance in developing options and principles for intervention. The lessons learnt from the use of both FishPHOM and PHLAT are also a source of normative guidance for the evolution of CCRF. CCRF is mainly concerned with the effective management of fisheries but it also incorporates important sections on the post-harvest sector. The potential for a greater degree of guidance from the CCRF on the livelihoods aspects of the Code are large. FishPHOM and PHLAT can assist in the evolution of the CCRF to better reflect these aspects. This in turn will assist the CCRF to better respond to the Millennium Development Goals.

The Research Project in Ghana has been working closely with the DFID-funded, FAO-implemented Sustainable Fisheries Livelihoods Programme (SFLP) in West Africa to ensure uptake and wider application of the project outputs. SFLP also has a pilot project operational in Ghana which the project has been collaborating with.

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