

Fiscal Reforms in Fisheries in Uganda

Country Paper

by

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1. INTRODUCTION

1.1 National Importance of Fisheries

The fisheries sector is important in the Ugandan economy for several reasons. It is a source of direct employment and livelihood support for an estimated one million Ugandans. This constitutes about 4 percent of the total population. According to Government sources, the fisheries sector contributed about 2.4% of the total GDP in 2002 (MFPED, 2003). However, because of inadequate baseline data, fisheries resources in Uganda, as in many other countries, are greatly under-valued. Evidence of this is provided by a more recent and detailed study (Banks 2003) that revealed a fivefold higher value of the sector, totalling \$220 million and contributing 12% of total GDP in 2002. A major proportion (63%) of the total value was generated by domestic fish trade whilst the remainder resulted from the export of fish and fish products which contributed \$81 million.

Uganda is fortunate in having major export fisheries based mainly on Nile perch from Lake Victoria. Fish exports contributed 17% of the total value of exports from Uganda in 2002, having grown from less than one percent in 1990 (UBOS, 1998; 2002; MFPED, 2003). Fish currently ranks as Uganda's highest non-traditional agricultural export earner and the considerable export revenues play an important role in contributing to Uganda's development vision of increasing its overall foreign exchange earning capability.

Fish is very important in nutrition, as it provides vital nutrients and a source of animal protein, especially to the poor who are unable to purchase other more expensive sources such as beef, pork or chicken. It is estimated that capture fisheries feed about 17 million people at an average annual per capita consumption of 10 kg. The species of fish that play an important role in food security and nutrition of the poor, differ from the those supporting export earnings.

The sector provides employment to fishermen, fisher mongers and those employed in fish processing. Therefore, it has important direct and indirect impact on poverty reduction efforts in Uganda. The direct benefits arise from direct dependence on the

fisheries, especially the lake communities. Indirect benefits arise from secondary employment through services that are provided in support of fisheries.

1.2 Ownership of Fisheries Resources

Fish resources are common property resources held in trust by Government on behalf of the people of Uganda. The Government, does not own these resources but, through its Department of Fisheries Resources, it is responsible for the safe-guarding and overall management of resources. A major concern is that many resource users treat the sector as if its natural resources are infinite. They are treated as shared resources that almost anyone can access with relative ease. There is a perception that resources that belong to all, belong to none, and this stimulates a "free for all" attitude based on short-term gain, competing for resources today without giving due regard to long-term resource sustainability.

1.3 Threats to Fisheries Resources

Despite the tremendous recent growth in fisheries exports, the sector as a whole is threatened. Fish catches peaked in 1993 at 276,000 tonnes. Catches have since averaged about 220,000 tonnes per year. Trends in fish catches and exports are shown in Annex 1. The relatively stable annual catch reported during the last decade masks serious concerns about the status of fish stocks in most major water bodies. There is widespread concern that substantial and rapid increases in fishing effort are leading to over-fishing and the use of illegal and harmful fishing methods/gears. There is particular concern that illegal fishing practices capture immature fish, thus interfering with the natural process of stock rejuvenation. This trend is related to the issue of access to fisheries that will be discussed in more detail in later sections. The threats to the fisheries not only impact on livelihoods within dependent fishing communities, but also on the wider economic growth of the country.

1.4 Previous Fisheries Management Approach

For decades, fisheries management in Uganda has been based on a centralised "command-and-control" approach. This approach has little or no community involvement in decision-making processes. It also proved to be a costly approach requiring a large number of government personnel. The failure to effectively consult

stakeholders and communities meant that rules were often perceived to lack legitimacy, thus lessening the chances of compliance. Non-compliance in turn led to increased confrontation between the State and resource users and higher enforcement costs which Government could not, or at least, was not prepared to meet.

With the advent of decentralisation in the nineties, responsibility for implementation of fisheries management shifted to local governments under the over-sight of the centre. In practice, however, little changed. The sector remained under-resourced and, typically for inland fisheries world-wide, unrecognised for the important role it plays in poverty reduction and economic growth. Fisheries, until very recently had a low-profile and attracted very little funding both at national level and at decentralised district government level. As a result, fisheries resources and the livelihoods of the million or more dependent on these resources continued to be threatened.

It is within this background that the leaders of the fisheries sector realised that there was need for radical change if resources were to be used wisely and livelihoods, especially of the poor, were to be secured. Precisely how this is being achieved and how it relates to the need for fiscal reform in fisheries is outlined in the following sections of this paper.

2. FISHERIES POLICIES, LAWS AND INSTITUTIONS

The fisheries sector is undergoing a period of major transition during which reforms are underway to develop and improve national policy, legislation and institutional efficiencies. The transition involves improvements in civil society organisation, closer links between communities, private industry and government, improved linkages between different levels of government and between different government sectors that have traditionally remained largely disconnected.

2.1 National Fisheries Policy

For decades, the fisheries sector in Uganda has been managed without an explicit policy document. It is only in 2000 that the DFR began a participatory process to formulate a new National Fisheries Policy (NFP). The policy-making process involved a wide range of stakeholders at all levels and therefore took quite a long-

time, finally resulting in the policy being submitted to Cabinet in 2003. The NFP has 13 policy areas which are summarised in Annex 2. The policy strongly promotes new management approaches, notably among others, the involvement of local people in the co-management of fisheries resources in partnership with local governments. This is in line with general principles underpinning the over-arching Plan for Modernisation of Agriculture (PMA) and government's policy on decentralisation. The fisheries policy highlights the need to link directly with the National Agricultural Advisory Services, an innovative vehicle of the PMA designed to provide publicly funded, privately delivered demand-driven advisory services to farmers and fishers. Here, there is need for fiscal reform related to capture fisheries and other common property natural resources.

The NFA recognises the need to focus on securing sustainable funding for fisheries management institutions at all levels and these too require concomitant fiscal reforms. The importance of improving fisheries information collection is also clearly recognised, and again, there is need for fiscal reform at the grassroots level. The policy articulates the need to align research more closely to stakeholder requirements, and yet again fiscal reform linked to wider institutional reform at national level is under consideration within the newly developed National Agricultural Research System. Details of the above mentioned fiscal reforms are outlined in section 4.

2.2 National Fisheries Legislation

The Fish Act (1967) is the principal legislation for managing fisheries in Uganda. It directs the control of fishing, the conservation of fish, the purchase, sale, marketing and processing of fish. The Fish Act is old and needs revision to reflect the changes that have occurred in the fisheries, especially in recent years, and to align it to the new fisheries policy. Efforts to revise the Act by the Department of Fisheries Resources are on-going but this has proven to be a lengthy process.

In the meantime, DFR has introduced additional fisheries legislation that is urgently needed in key areas. It has achieved this through the development of a series of Statutory Instruments. The most visionary of these is new legislation establishing co-

management of fisheries resources⁴. The Government has made a major leap forward in trusting its people to co-manage resources in partnership with local governments. This has been achieved through legislation empowering the formation of community Beach Management Units (BMUs) for fisheries planning and management (see 2.3).

A second key area relates to control of access to fisheries. The DFR uses fisheries vessel licensing both as a potential management tool to control access and as a means of extracting revenue from the value of fisheries resources. Legislation introduced in December 2001 delegated licensing powers from the centre (DFR) to district governments.

A third area of legislative development relates to increasing taxation of fisheries vessels, fishing permits and fish marketing. These laws were introduced to serve as a means of extracting resource rent for increased local government revenue and to inhibit new entrants to increasingly exploited fisheries.

2.3 Fisheries Institutional Restructuring

Fisheries institutional reform is taking place simultaneously at three levels - micro, meso- and macro-level, with new links between these levels.

Micro-level

At the micro level, the Government is putting its policy into practice by supporting the establishment of a national network of 500-700 legally empowered community Beach Management Units. BMUs will be established at all officially designated fish landing sites. The only legal right of access to exploit fisheries resources at designated landing sites is through joining a BMU. If a fisher, processor or trader, etc does not join then he/she cannot operate legally in fisheries. BMU membership allows active involvement in decision-making processes governing the management of fisheries resources in partnership with local government. It also allows control of access to fisheries resources by limiting numbers and types of fishing boats and gears. BMUs are able to set management rules locally and at lake wide level through by-laws and ordinances.

⁴ The Fishing (Beach Management) Rules, Statutory Instrument No. 35, 11 July 2003

Meso-level

The BMUs are set up in such a way that they work in collaboration with lower local governments and are also linked to meso-level local governments at the district or inter-district level. This approach to fisheries management represents a revolutionary way that is designed to lead to sustainable integrated resource use and management. The BMU law provides for collaboration and association with other BMUs to form higher level BMUs and association with lake wide management organisations. The first such totally Uganda lake wide management body has been established on Lake George and is known as the Lake George Basin Integrated Management Organization (LAGBIMO). A similar organisation will be formed on Lake Kyoga in early 2004 and known as the Lake Kyoga Integrated Management Organization (LAKIMO). These organisations provide a framework within which civil society works hand-in-hand with government and, where relevant, private industry to develop, implement and monitor the performance and impacts of integrated lake management plans. These lake organisations have legal identity under the Local Government Act, 1997.

Macro-level

At the national level, a process is underway to transform the Department of Fisheries Resources into an autonomous body called the Uganda Fisheries Authority (UFA). This central level body will bring together all fisheries stakeholders in the country and link them to meso-level organisations, grassroots BMUs and international fisheries management bodies such as the Lake Victoria Fisheries Organization (LVFO). At the same time, the parent ministry of DFR is under-going its own structural and functional re-organisation with which a new UFA must link.

Do the BMUs solve the problem of the open access?

In our view, the BMUs represent a new approach to fisheries management compared to the command and control approach. However, while the BMUs represent improvement, they are unlikely to solve the problem of open access entirely. In the long-run it does seem inescapable that Uganda needs to consider other measures such as defining property ownership rights within the fisheries and the property rights should be transferable. In addition, it is not clear that BMUs incentives or alternatives for those that

may be “excluded” from the fisheries, yet previously they depended on it for their livelihood. In any case if all end up becoming member of BMUs how different will situation be from the previous one in terms of limiting access.

3. FISCAL POLICIES IN FISHERIES

Fiscal policies directly relevant to fisheries in Uganda cover a range of activities, including input supply costs, access to capture fisheries, fish processing, marketing, monitoring and management costs. Fiscal policies relate to mechanisms that are "internal" within the fisheries sector such as the extraction of economic rent from fisheries as well as those that are "external", lying outside the sector but which have a significant influence on efficiencies within the sector.

3.1 Internal Fiscal Policies

An economic rent is the maximum economic surplus that can be extracted from the fishery while the fishing industry continues to operate efficiently. One rationale for extracting some or all of the potential rent from the fishery is based on the premise that the fish stocks represent a national resource and that society as a whole should receive a share of the benefits from their exploitation. Studies (e.g. Arnason, 1990) indicate that in well-managed fisheries economic rents typically range from 10-60% of the gross value of landings. In Uganda, the annual gross value of landings is at least US\$ 220 million. Hence, the potential rents should be at least US\$20 million and quite possibly as high as or higher than US\$100 million annually.

The key issue, however, is that the rents that exist within the Ugandan fishery are not properly extracted. Even those extracted using the fiscal instruments outlined below are hardly ever re-invested or ploughed back (at least not directly) for the management and sustainability of fisheries. Current practice revolves around extracting rents that are deposited with national and district treasuries or with private individuals for use outside fisheries. Funds from national treasuries are used to finance, among other things, public goods such as roads and other social infrastructure.

Central government level

At the central level, there are two main instruments: industrial processing license and health inspection certificate.

(a) Industrial fish processing licence

The industrial fish processing licence in Uganda is an annual licence issued by the DFR to all fish processing firms. The licence is currently issued at an annual charge of Uganda Sh 500,000 (about US\$256⁵) for each operating processing factory.

(b) Health inspection certificate

The DFR is mandated to certify the quality and safety of fish, especially for export. All the fish destined for export market is certified by the Fisheries Department by issuing a health inspection certificate after conducting quality and safety tests on samples of every consignment⁶ or batch of fish export. This certificate is issued at a charge of Uganda Sh. 2,000 (about US\$10) for every consignment.⁷

Local government level

Under the decentralisation framework in Uganda, local governments are organised in two tiers with legal identity and autonomy. First is the district level, which is the immediate lower local government from the central. The second is the sub-county level, which is the immediate lower local government from the district level. Government administrative units exist below sub-county level, at parish and village. Under these local administrations, limited fisheries extension services are provided whilst there is a stronger focus on fisheries revenue collection by fisheries officers. There is a wide range of fisheries related taxes and fees. The levels of most of these are set by central government. The funds generated by them are remitted to local government. The following are fiscal instruments applied by local governments:

(a) Fishing vessel licence

⁵ The current exchange rate (September 2003) is Sh 1950 per US dollar.

⁶ A consignment is defined under the Fish (Quality Assurance) Rules (1997) as "a quantity of fish products bound for one or more customers in the country of destination and conveyed by one means of transport only". The batch on the other hand is defined as "a quantity of fish or fish products obtained under practically identical circumstances, during a period of time indicated by specific code".

⁷ Statutory Instruments 1998 No. 56, section 6 (3) of the Fish (Quality Assurance) Rules 1998 Under section 43 of the Fish Act, (Cap, 228)

In the Uganda fisheries, the right to fish requires an annual fishing vessel licence issued by district fisheries departments. Until recently the licence cost Ush 12,000 (US\$6) for small, planked canoes without an engine and Ush 17,000 (US \$9) for vessels with an engine. However, recent reforms have resulted in substantial increases in licence fees (see section 4).

(b) Fishing permit

The fishing permit, although contained in the principal fisheries law, in practice was not strongly or widely enforced until very recently, and is one of the on-going fiscal reforms (see section 4). The individual annual charge ranges from Ush 5,000-7,500 (US\$ 2.5-4) and is paid by crew members, who are generally much poorer than the boat owners.

(d) Fishmongers licence

This is a fish trading licence with a range of values depending on district and the geographical extent of trading operation. Until recently, annual licence fees for traders operating within a single district ranged from Ush 5,000 – 15,000 (US\$2.5-7.5) for small-scale traders. Higher fees (US\$10) were charged for vehicle trading between districts. All fishmonger licence fees were increased under a new Statutory Instrument (see section 4).

(e) Marketing permits

Marketing permits are required by all traders in secondary and higher markets. The charges for permits vary across the country and between different sized markets. At the primary market at fish landing sites, market fees are also charged but these are paid under a system of tendering tax collection by district governments. Tendering systems are discussed in paragraph (g) below.

(f) Fish landing Fees

A daily landing charge is applied by local government at all designated fish landing sites. The charge is about Ush500 (US\$0.25) per boat. This charge is collected using a tendering of the tax collection system (see para g).

(g) Tender charges

Uganda has embarked on a radical course of decentralisation, in which tendering of service delivery has become widespread across the country and applied to all sectors. Fisheries are the only natural common property resources that are subjected to a system of tendering service delivery. The

service tendered is tax collection. Boat landing fees, market fees and other associated taxes are collected by private tender holders who pay local governments an agreed tender price fixed in their bid for the tender in return for the right to collect specific taxes on behalf of local governments. The profit of the tender holder is the amount over and above the reserve price of the landing site and costs of tax recovery.

There is clear evidence that fisheries tendering is a highly profitable business and consequently, there is much competition to acquire tenders. It has been estimated that the annual profit from tendering is about \$150,000 on Lake Kyoga and it may be as much as \$1.5 million on Lake Victoria. These profits are never re-invested in fisheries management and development. Furthermore, they result in the over-charging resources users, especially the poorest users and undermine efforts to promote sustainable resource management. Fisheries tendering is one of the key areas in need of radical fiscal reform.

Community level

In addition to the many formal taxes and licence fees listed above, there are also many informal charges made when fishing boats land their catch. These charges are usually in the form of fish taken from each boat, or occasionally in cash. Many of these charges operated under fish landing site committees. These are groups formed, under government encouragement, and composed of the more powerful boat owners and fish traders at fish landings. Other charges are also made illegally by local fisheries staff.

3.2 External Fiscal Policies

Wider fiscal policies determined outside the fisheries sector but which have an important influence on it, include the following:

- central government budget allocations: fisheries traditionally marginalised in MAAIF, low budget despite its importance
- Import subsidies: tax exemption on fishing nets

4. FISCAL REFORMS IN FISHERIES

4.1 Internal Reforms

Several options exist within the Ugandan fishery where fiscal reforms can be used to capture rents and improve their value to the sector. These options revolve around the “user-pays-principle” and other ways of recovering costs of fisheries management from the fishery itself than relying on government transfers. Note also that well-managed fisheries usually yield economic rents⁸. Empirical studies (see e.g. Arnason 1990, Bjorndal 1990⁹ and others) suggest that potential economic rents in fisheries typically range from 10-60% of the gross value of landings. In Uganda, the gross value of landings may be estimated in the neighbourhood of at least US\$ 200-300 million per annum. Hence, the potential rents should be at least US\$20 million and quite possibly as high as or higher than US\$100 million annually.

The following are proposals for fiscal strategies which fisheries can utilise to increase rents and direct towards increases benefits to the sector. They are discussed at three different levels of fisheries management i.e. national, local government (district) and community levels.

National level

At national level, it has been proposed, though not yet implemented to put a cess on fish exports to generate rents that would run the affairs of the fisheries sub-sector. A proposal of 3% had been made, lower than the 6% that is charged on fish exports in neighbouring Tanzania. In Uganda analysis has shown that such a cess would not affect the competitiveness of the fish processing firms and fish exporters. In any case the idea of a cess on exports is not new in Uganda. The coffee industry has been using it for quite sometime and the activities of the Uganda Coffee Development Authority (UCDA) are funded from the 1% cess on coffee exports. Likewise, the proposed

⁸ An economic rent is the maximum economic surplus that can be extracted from the fishery while the fishing industry continues to operate efficiently. One rationale for extracting some or all of the potential rent from the fishery is based on the premise that the fish stocks represent a national resource and that society as a whole should receive a share of the benefits from their exploitation.

⁹ Arnason, R. 1990. A numerical model of the Icelandic Demersal Fisheries. In G. Rodrigues(ed.) Operations Research and Management in Fishing . Nato ASI vol. 189. Kluwer. Bjorndal, T. 1990. A Bio-economic Analysis of North sea Herring. In G. Rodrigues(ed.) Operations Research and Management in Fishing . Nato ASI vol. 189. Kluwer.

National Fisheries Authority could be partly funded by a modest cess imposed on fish exports, rather than relying on a constrained national treasury.

District level

At the district level, direct revenue from fisheries is in form of tender revenue collected by private tenders at landing sites and various taxes/fees on access (vessel licence, fishing permit), processing and trading. Central government has recently substantially increased existing licence fees. These include fishing vessel licences and fishmonger licences of Ugandan nationals and foreigners. This has resulted in considerable increases in locally generated fisheries revenue remitted to local governments. Central government is now considering how part of this revenue may be used to support the national UFA.

At present, funds generated by fisheries taxes are used for general local government activities, with no or little consideration of the needs of the fishery that generated them in the first instance. The Local Government Act, 1997 provides for the district to send 65% of local revenue to sub-counties which in turn should remit 25% of that to Local Councils. While this mechanism returns resources to the lower local governments, there is no guarantee that they will invest in fisheries management. Specific efforts need to be made to ensure that fish revenue (at least a proportion of it) is ploughed back for fisheries management. This reform is likely to take two approaches. The first, involves direct allocation of part of a new fisheries tax to community BMUs for management purposes (see next para for details). The second would fund district-based fisheries management function or organisations created at that level such as LAGBIMO on Lake George.

Community level

Fisheries stakeholders pay fees and taxes that are remitted to district governments or go as profit to tender holders. The BMU system will change this state of affairs, to some degree, by involving communities in deciding how local revenues from fisheries are utilised for improved fisheries management and development. The BMU legislation has three provisions for financial reform (i) retention of 25% of the money

generated from issuing fish movement permits at the fish landing site as prescribed in Statutory Instrument No. 61 of 2002; (ii) profit generated from tender holding for those BMUs who may win district fish landing site tenders; and, (iii) collection of a number of fish or a set value per boat landing as established through by-laws vetted by lower councils as per section 40(1) of the Local Government Act, 1997 (GOU, 2003).

None of these methods is entirely satisfactory. The first is an added tax introduced by the centre to enable it to track the origin of fish and its movement after landing. This is a traceability requirement imposed on the export fishery by the EU in relation to Nile perch, but is now applied in law to all species of fish throughout Uganda. The second accepts the tendering system and makes no attempt at reform of this exploitative and inequitable system. The third involves another addition to the tax burden of producers only, and will not be popular whilst the tender holder remains alongside collecting the same type of tax.

An alternative approach to fiscal reform, which is currently under debate, is the removal of fisheries tendering and replacing it with a Fisheries User Fee paid to district government by BMUs. Financial analyses reveal that this system, if employed, will increase the funds to local government, decrease the charges to resource users and leave a substantial amount for fisheries management and development. This system also offers the opportunity to simplify a complex local fisheries taxation system and take into account its differential impacts on different stakeholder groups with regard to poverty reduction.

4.2 External Funding

The Poverty Eradication Action Plan (PEAP) is Uganda's Poverty Reduction Strategy Paper (PRSP). The PEAP guides national development and budget framework. With increasing competition for central government budget allocations operating under the ceiling of the Medium Term Expenditure Framework, it is essential for individual sectors to engage in this competitive process in order to secure an adequate share of funding. Uganda has also adopted the Sector Wide Approach SWAp to development.

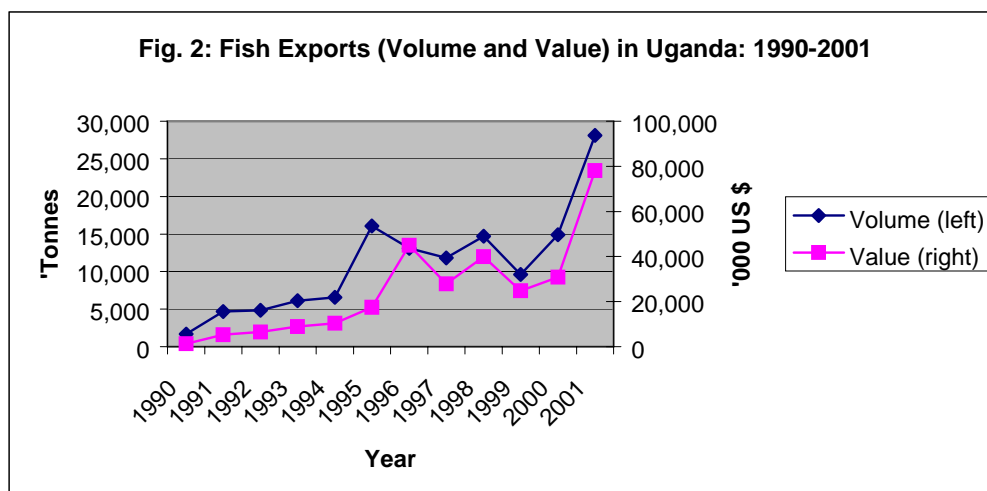
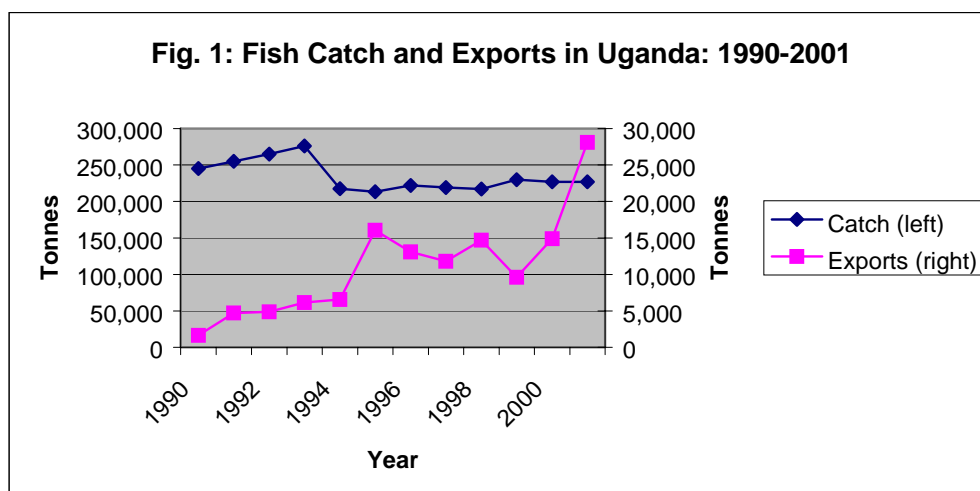
This approach demands improved financial analyses in budgeted sector strategic plans.

The fisheries sector has responded positively to these new, wider developments. It is currently expending much effort to raise its own profile within Uganda by demonstrating the importance of the sector in poverty reduction and economic growth. It is actively involved in the current revision of the PEAP which takes place at three yearly intervals. It has developed a detailed, budgeted Fisheries Sector Strategic Plan (FSSP) that provides a road map for putting its new National Fisheries Policy into practice.

The sector is also very proactive in attracting major donor support programmes embedded within the MTEF and additional national funding support through the Government's Strategic Export Initiative.

The sector is working closely with the NAADS programme and has established a NAADS/Fisheries Taskforce and is an active member of the NAADS/NR Taskforce. It is using these bodies to influence NAADS in key areas of fiscal reform with major relevance for the fisheries sector. DFR is advocating the establishment of special funds established at district level to support common property natural resources. These will be used to provide capacity support through training of BMUs and other advisory service support such as the local delivery of research.

ANNEX 1 TRENDS IN FISH CATCH AND EXPORTS



Fish Production and Exports in Uganda

Year	Exports (volume) (MT)	Exports (value) US \$'000	Total Exports US \$'000	Export share (% value)
1990	1,664	1,386	177,658	0.78
1991	4,687	5,313	184,263	2.88
1992	4,851	6,498	146,767	4.43
1993	6,138	8,943	201,231	4.44
1994	6,564	10,403	459,939	2.26
1995	16,046	17,541	553,938	3.17
1996	13,100	45,030	703,993	6.40
1997	11,819	27,864	594,628	4.69
1998	14,688	39,879	536,747	7.43
1999	9,628	24,837	478,750	5.19
2000	14,894	30,818	401,645	7.67
2001	28,119	78,150	451,765	17.30
2002	27,370	80,850	475,530	17.00

ANNEX 2 NATIONAL FISHERIES POLICY OBJECTIVES

- 1 Sustainable management and development of fisheries:** Fisheries will be managed and developed to promote the socially and economically sustainable use of fisheries resources and the protection of aquatic ecosystems so as to meet the needs of present generations without compromising the ability of future generations to meet their needs.
- 2 Decentralisation and community involvement in fisheries management:** Stakeholders will be involved in the management of fisheries by devolving some decision-making responsibilities to local governments and communities.
- 3 District, sub-county and community partnership in fisheries management:** District, sub-counties and communities will collaborate in the management of shared fisheries and aquatic ecosystems.
- 4 Institutions and funding mechanisms:** Sustainable institutions and funding mechanisms for improved fisheries management will be identified and established.
- 5 Investment in fisheries:** Public, private sector and community based investment in the fisheries sector that is environmentally, socially and economically sustainable will be promoted.
- 6 Planning and policy making:** Transparent and participatory planning and policy-making will form the basis of fisheries management.
- 7 Information:** Effective systems for the collection, compilation, analysis, storage and dissemination of information will be established for planning, management, monitoring and evaluation purposes.
- 8 The Environment and fisheries:** Adverse environmental impacts on fisheries will be minimised and mechanisms will be established at appropriate levels to achieve this.
- 9 Aquaculture:** Aquaculture fish production will be promoted to reduce the gap between fish supply and the increasing demand for food fish.
- 10 Post-harvest fish quality and added value:** Measures will be instituted to ensure that the quality, wholesomeness, safety for human consumption and value of harvested fish and fishery products is secured and/or enhanced.

- 11 Fish marketing and trade:** Measures will be taken to achieve sustainable increases in the value and volume of fish marketed for national consumption and export.
- 12 Human resource development;** the Government will promote comprehensive training and advisory programmes so as to build human resource capacity and to increase levels of knowledge, skill and expertise in the public and private fisheries sub-sectors.
- 13 Research:** Social, economic, environmental and technical investigations of issues pertinent to fisheries, including the development of appropriate technologies, will be promoted in response to fisheries development and management needs.

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