

FISHERIES MANAGEMENT AND LAW ADVISORY PROGRAMME

Report prepared for the Governments of
Burundi, Tanzania, Zaire and Zambia

on

**INSTITUTIONAL CHOICES FOR COOPERATION
IN FISHERIES MANAGEMENT AND CONSERVATION ON
LAKE TANGANYIKA**

by

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This report was prepared during the course of the project identified on the title page. The conclusions and recommendations given in the report are those considered appropriate at the time of its preparation. They may be modified in the light of further knowledge gained at subsequent stages of the project.

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INTRODUCTION

This report was prepared following a three week field trip, which took place from 26 June through 19 July 1996, and led the mission to the four lacustrine states, chronologically, to Bujumbura (Burundi), Dar es Salaam (Tanzania), Lusaka (Zambia), Kinshasa (Zaire) and back to Bujumbura (Burundi). It is based both on the findings from the various interviews and inquiries conducted in the riparian countries and on information available at FAO headquarters in Rome and EnAct International in London. The team was composed of Mr. T. Maembe (Tanzanian Director of Fisheries) and Mr. P. Cacaud (Legal Consultant, FAO). Two separate reports were submitted to FAO, one dealing with the legal aspects and the other one with the institutional and managerial aspects of the fisheries management of Lake Tanganyika and will then be discussed at the seventh session of the CIFA Sub-Committee on Lake Tanganyika.

The task of the legal consultant consisted of collecting all relevant information pertaining to fisheries laws and regulations on Lake Tanganyika; updating the compendium on national fisheries legislation of countries bordering the Lake; and identifying which institutional and legal options could be envisaged for the management of Lake Tanganyika fisheries.

Two major projects are currently operating on and in the vicinity of the Lake, namely, the Research for the Management of the Fisheries on Lake Tanganyika project (GCP/RAF/271/FIN)¹ and the Lake Tanganyika Biodiversity project². The former has been operating since 1992 and has contributed valuable scientific information for the management of fish stocks on the Lake. The latter, which has a much broader scope, is experiencing a slow start. At that stage, it is not clear what its contribution to the Lake fisheries is going to be as its fisheries program has yet to be outlined. It is important to note that the establishment of a Basin authority type of structure is one of the final objectives of this project.

This paper sets out a review of the legislation and regulatory framework in Burundi, Tanzania, Zaire and Zambia pertaining to fisheries (Part I), discusses the legal and institutional options that can be envisaged for the regional management of the Lake fisheries (Part II) and lastly sets out recommendations (Part III).

¹ This is a joint FAO/FINNIDA project.

² This is a Global Environment Facility (GEF) project.

PART I - REVIEW OF FISHERIES LEGISLATION OF THE FOUR LACUSTRINE STATES

1. ZAMBIA

1.1 Introduction

The Republic of Zambia is a landlocked state with an area of 752,614 km², enjoying a dense network of rivers and lakes whose annual fish production was estimated at 70,058 mt in 1994 out of which the Zambian portion of Lake Tanganyika, which is widely considered the most productive, yielded approximately 16,000 mt³. A brief analysis of the annual total fish production of Lake Tanganyika shows that it has been steadily increasing over the years⁴. According to the Fisheries Department, however, this trend is likely to change rapidly as various signs of over-exploitation of the fishery have already been observed (reduction in size of the catch and mesh size, intensification of fishing effort). The 1995 annual fish production seems to support that view as it is estimated at about 13,000 mt, thus reflecting a 3,000 mt decrease of the yield. This is apparently due in large part to the inability of the Fisheries Department to control fishing effort on their portion of Lake Tanganyika and to the lack of reliable data on the status of the stocks. As a result too many industrial fishing vessels have been authorized to enter the fishery. Another contributing factor is the chronic lack of means of any sort at the disposal of the fisheries officers to satisfactorily fulfill their tasks, in particular the absence of an adequate legal instrument.

1.2 Fisheries Legislation of Zambia

The Fisheries Act, No. 21 of 1974, is primarily directed at developing and controlling commercial fishing. The Minister is empowered to declare any area of water to be a prescribed area or a commercial fishing area and to make regulations in respect of such areas (sections 6 and 8 respectively). The former is designed to accommodate recreational, subsistence and research fishing and is consequently exclusive of commercial fishing whereas the latter is specifically conceived for commercial fishing. Special fishing licenses are required to operate in prescribed areas (section 7). For the better management of commercial fishing in any commercial fishing area the Minister may appoint a Fishing Development Committee (section 12). It should be noted however that such managerial structures have never been established. The Act also provides for the registration of fishermen and every boats used for the purpose of commercial fishing (sections 9 and 10).

As far as control of fishing is concerned, the Act prohibits certain fishing methods including the use of poison, poisonous plants, explosives and electric fishing devices (section 3) and forbids the introduction and import of non-indigenous species without the prior written authorization of the Director of Fisheries (section 5).

³These figures were provided by the Fisheries Department of Zambia. It should be noted that they only reflect the aggregate production of the major fisheries of Zambia, leaving out small rivers and lakes where data on the catch were not available.

⁴Recorded data available span a 30 year period starting in 1966 up to 1994 and show that the annual fish production of Lake Tanganyika was estimated at 6,500 mt in 1966, 7,873 mt in 1977, 12,978 in 1986 and 15,972 in 1994.

Lastly, it should be noted that penalties stated in the Act are out-dated and therefore no longer act as an effective deterrent. As a result, the Fees and Fines Act of 1994 has been passed in order to reassess periodically fees and fines of all legislation by applying a multiplier, namely the fee unit (currently estimated at 180), which is indexed to the rate of inflation.

The Commercial Fishing Areas (Declaration) Order (Statutory Instrument No. 107 of 1976) declares a commercial fishing area in Lake Tanganyika⁵. The Fisheries Regulations of 1986 prohibit throughout the Lake Tanganyika Commercial Fishing Area the use of monofilament net of a mesh size less than 120mm⁶ and as a general rule nets of a mesh size less than 10mm (Regulation 4 of Second Schedule). Fishing by means of "kulumpula" is prohibited within any commercial fishing areas⁷. In addition to the issue of control of fishing, the Fisheries Regulations of 1986 deal with application, issuance, duration, cancellation and transfer of fishing licenses within commercial fishing areas and provide for the establishment of a registry of fishing licenses that shall be kept by the Director of Fisheries.

The Fisheries (Registration of Fishing Boats) Order (Statutory Instrument No. 24 of 1986) provides for the registration and marking of fishing boats which are defined as "any water craft whether mechanically powered or not, used for or in connection with commercial fishing" (section 2). Thus, both artisanal and industrial fishing boats fall into the purview of the definition.

The Fisheries (Prescribed Areas) (Declaration) Order (Statutory Instrument No. 26 of 1986) declares a prescribed area for purposes of recreational, subsistence and research fishing each area of water which has been declared a commercial fishing area. Fishing within prescribed areas for the aforementioned purposes is subject to the obtention of a special fishing license issued by the Minister, whereas fishing by means of a rod or line requires an angling license issued by the Director of Fisheries. Finally, the Order provides for the recording of any ornamental fish collected.

The Fisheries (Fishing License Fees) Regulations (Statutory Instrument No. 25 of 1986) set out fees payable in respect of a special fishing license (First Schedule) and those payable in respect of a fishing license (Second Schedule). As an incentive to develop the fish industry the Regulations contain a provision empowering the Minister to reduce or remit by such amount as he thinks fit, any of the fees required to be paid.

⁵Section 2 defines the Lake Tanganyika commercial fishing area as "the open waters of Lake Tanganyika; the main stream of the Lufubu River upstream to the Mwepe Falls; together with the verges of the Lake and river respectively to a depth of 150m beyond water mark at a given date and such other water lying within 30km of the aforesaid Lake and river as the Director may, in special cases, specify."

⁶According to M. D. Kabakwe, who is the acting Provincial Fisheries Officer for the Northern Province where Lake Tanganyika lies, fishing gear regulations on the Lake are ill-conceived. He pointed out to that effect that restrictions on monofilament nets do not apply simply because this type of gear is not available on the Lake, whereas beach seines are commonly used but are not regulated.

⁷Kulumpula is defined as "any fishing method whereby fish are driven into a stationary gill net or monofilament net" (section 2).

1.3 Draft legislation

The Department of Fisheries (DOF) has recently published a study⁸ of the fisheries sector, in which the inadequacy of the fisheries legislation has been pointed out as one of the major constraints for the effective management of the fisheries of Zambia. Accordingly, it recommended that the current Fisheries Act of 1974 be revised. Pursuant to this recommendation a new act has been drafted by DOF and will soon be submitted to the Drafting Unit of the Law Development Commission of the Ministry of Legal Affairs.

The proposed fisheries legislation introduces four major changes: i) introduction of fisheries community based management; ii) restructuration of DOF; iii) incorporation of provisions for the conservation and protection of fish stocks; iv) extension of the Act to fish farming. The aquaculture issue is not discussed hereafter as it is beyond the scope of this paper.

i) Under the proposed legislation, the Minister would be empowered to declare commercial fishing areas and to appoint a fisheries management board to make fisheries management decisions on his behalf. The make-up of the board would include resource users, inter alia, fishermen. Involving fishermen in the decision making process may significantly improve compliance with management measures. Fisheries Management Boards would replace Fisheries Development Committees which as stated above have never been established.

A Statutory Instrument, the Fisheries (Integrated Fisheries Management) Regulations, supplementing the Act has also been drafted. Under these regulations, the Minister is empowered to designate permanent fishing villages including contiguous fishing grounds as well as to establish integrated Village Management and Zonal Committees to manage aquatic resources in any river, swamp and lake. The functions of the Village Management Committees would consist of implementing an integrated community based approach for the management of aquatic resources, collecting license fees and enforcing fisheries regulations. Those of Zonal Committees would primarily be directed at coordinating activities of Village Management Committees. It should also be noted that a revolving fund would be maintained by each Zonal Committee and be funded by money deriving from license fees, fines and fish levies.

Interestingly, the Draft regulations for the fisheries management of Lake Kariba contain a provision stipulating that "traditional chiefs ... shall be appointed Honorary Fisheries Officers and shall play a leading role in the management of fish resources and development of the fishing industry in their respective area".

ii) The proposed legislation distinguishes between the functions of fisheries management and training on the one hand and those of research on the other. The first ones would be vested with the Director of Fisheries, who under the current legislation is in charge of the entire Department, and the second ones with the Commissioner of Fisheries, a newly

⁸*Agricultural Sector Investment Programme, Fisheries Development Sub-Committee, Ministry of Agriculture, Food and Fisheries (August 1994).*

created position. The draft legislation also provides for the establishment of the Fisheries Development Authority which is an advisory body directly linked to the Minister and whose general function is to ensure "better co-ordination and improvement of fisheries in the Republic".

iii) The draft regulations address the issue of conservation and protection of the fish stocks by restricting fishing in estuaries, by prohibiting fishing in areas designated as buffer zones and by subjecting the construction of irrigation dams to the constructing of a fish bypass mechanism.

1.4 Conclusions

Much of the current fisheries legislation is old and outdated. However, genuine efforts have been undertaken to revamp it and a new legal framework may soon be adopted⁹. As is common in many countries, fisheries legislation in Zambia has been poorly enforced and as a consequence remains widely ignored by fishermen. The following general shortcomings have been identified:

1. As it stands now the draft legislation appears to be incomplete. In particular provisions dealing with conservation and protection of aquatic ecosystems, fish processing and fish quality have been left out;
2. As it has been conceived so far in the draft regulations, local communities' participation has been limited to the management of fish stocks. Extension of public participation to the enforcement of fisheries regulations need to be studied;
3. A major reassessment of fishing gear regulations on Lake Tanganyika must be undertaken in order to reflect the current practices. In particular, the issue of destructive fishing methods such as beach seining which is commonly practiced on the Lake needs to be addressed;
4. As fishing effort is intensifying on the Lake, Zambia may be willing to emphasize the necessity of strengthening regional cooperation in respect of shared fish stocks. In this regard, fisheries officers have raised the issue of access to new fishing grounds lying beyond their territorial waters and therefore the possibility of entering into fishing agreements with Zaire and Tanzania.

2. BURUNDI

2.1 Introduction

With a land area of 27,384 km² and a population of 5,625,000 the Republic of Burundi is one of the most densely populated countries in Africa. The capital, Bujumbura, lies on the North shore of Lake Tanganyika and is by far the largest city and market in the

⁹In this regards, it should be noted that the Zambian Government has requested the technical assistance of the FAO Legal Office in Rome.

Lake's vicinity. Burundi occupies only some 8% of the surface area of the Lake. As the political situation continues to deteriorate, all activities including fishing have been closed on the Lake as of 8 March 1996, for security reasons. As a result, industrial fishing boats stay idle in Bujumbura's harbour and most of the Greek owners have left the country. A few fishing vessels have relocated into neighboring countries. It should be noted that prior to the closing of the Lake to fishing operations, fishing activities had already sharply declined due essentially to growing fiscal pressure. In 1995, only two industrial fishing vessels operated in the Burundian waters.

The artisanal fishery using catamarans and left-nets has expanded to replace the fishing effort of the industrial fleet, but this sector's operations were also closed in March 1996.

2.2 Fisheries legislation

The principle law on fisheries is the 1937 Decree on Hunting and Fishing. This decree applied through the territories administered by Belgium at that time (Ruanda-Urundi and the Belgian Congo) and as will be seen it is the law which still regulates fishing in Zaïre¹⁰. The 1937 decree is essentially a framework law providing for specific issues to be dealt with through the making of regulations. In brief, it gives competent authorities the power to issue regulations on such matters as: the protection of customary fishing rights, fishing techniques and mesh sizes, fishing seasons, the conservation of fish stocks, fishing areas and licenses, the apportionment of taxes, the introduction of non-indigenous species and the imposition of sanctions for infractions. The decree establishes two categories of waters: those privately owned and those belonging to the state. Hence, fishing in public waters is subject to state's authorization, while fishing in private waters requires owner's consent. The decree contains a wide range of conservation measures, notably, the protection of spawning grounds where fishing is strictly prohibited.

The 1932 Decree on Exclusive Fishing Rights¹¹ gives any individual the possibility of acquiring exclusive fishing rights in a designated area¹² upon agreement with the competent authorities. The 1932 decree defines the general terms and conditions upon which such kind of an agreement can be entered into and the rights and obligations of each contracting party. Such an agreement can be denied or subject to the respect of traditional fishing rights if the existence of such rights are clearly established in the area under consideration.

Regulations under the 1937 decree include a 1937 Ordonnance¹³ which bans fishing by use of explosive, electricity and toxic substances except for research purposes provided that adequate authorization had been granted by the proper authority.

¹⁰ Décret du 21 avril 1937 portant réglementation de la chasse et de la pêche, amendé par le décret du 17 janvier 1957, l'ordonnance No. 52/273 du 24 juin 1958, et le décret du 27 juin 1960.

¹¹ Décret du 12 juillet 1932 portant réglementation des concessions de pêche.

¹² A designated area can neither exceed a total surface of 1.200 km² nor 60 km in length.

¹³ Ordonnance No. 103/Agri du 4 octobre 1937.

A 1947 Ordonnance¹⁴ consisting of a single article prohibits the introduction of exotic fish species including their eggs in the waters of the Belgian colonies, unless it is duly authorized by the Permanent Secretary.

The 1961 ministerial regulation on Fishing on Lake Tanganyika regulates i) industrial fishing, ii) artisanal fishing and iii) individual fishing¹⁵. Pursuant to this regulation, industrial fishing is prohibited within 5 km from the shoreline as are nets with a mesh size of less than 4 mm. Administrative permits are required for all types of fishing and are subject to the payment of a prescribed fee with the exception of the individual fishing permit which is free of charge¹⁶. Permits are issued by the authorities on the advice of a consultative commission. The number of industrial fishing permits that can be delivered each year cannot exceed 6. All industrial catches must be landed and sold in Bujumbura unless a special authorization providing otherwise has been granted by the competent authorities.

A 1982 Ordonnance¹⁷ creates a 5FBU tax per kilogram of fish sold in Burundi. To all accounts, tax pressure on fishing has reached such a high level that most industrial fishermen have been discouraged¹⁸ and have preferred to invest in other sectors of the economy.

Lastly, it should be noted that a draft legislation presented in the framework of FAO TCP/BDI/8954 was about to be submitted to the Parliament when political turmoil broke out in 1992 and stopped the process. According to the Fisheries Department, this draft remains the basis of any new legislation. In brief, the draft provides for the devising of a fisheries management master plan, an inventory of both fishermen and fishing gears, licensing, protection of aquatic ecosystems, ornamental fish, fish-products' quality-standards, contraventions and applicable sanctions. It also establishes a special fund in order to support the development of fishing.

2.3 Conclusions

The law in Burundi is outdated. One of the major drawbacks of the current legislation is the lack of sanctions. Such is the case of the 1937 Ordonnance which bans the use of electricity, toxic substances and explosives for fishing without providing for the corresponding sanctions. Where it exists, the prescribed level of fines is obsolete. In many cases the law is also incomplete. For instance, the 1961 ministerial regulation dealing with fishing on Lake Tanganyika sets out different fishing categories based on the fishing gear

¹⁴Ordonnance No. 325/Agri du 16 octobre 1947. Introduction d'espèces de poissons étrangères.

¹⁵Arrêté ministériel No. 050/44 du 16 décembre 1961 portant réglementation de la pêche au lac Tanganyika.

¹⁶Apparently, a 1982 Ordonnance, which could not be obtained by the mission, has established a 2,500 FBU tax for issuing an individual fishing permit.

¹⁷Ordonnance No. 710/163 du 28 juillet 1982 portant création de la taxe sur le poisson vendu.

¹⁸The following taxes have been identified during the visit in Burundi: a 400,000 FBU licence fee per industrial fishing boat and per year, a 7% yearly income tax and a 10,000 FBU fee to lease a selling booth in the Bujumbura's market. In addition, various local taxes are levied on industrial fishing boats. For further information, see "une nouvelle législation sur la pêche et l'aquaculture: propositions et projets de textes" by N. Bonucci and F. Roest, FAO, February 1992, at p.6.

utilized, but leaves out fishing gears such as longlining also used on the Lake. The law also fails to tackle with destructive (of both the living resources and their habitats) fishing methods such as beach seining or fishing by means of a rod or stick used to stir up the water and its bottom in order to frighten fish. Therefore, a major reassessment of the 1961 regulations on fishing on Lake Tanganyika needs to be undertaken in view of the current fishing practices. Furthermore, recent development of international law dealing primarily with environmental and quality issues such as water quality, aquatic ecosystem protection, fish products quality standards are not addressed in the law at it stands. Lastly, it should be stressed that a major impediment to industrial fishing development is the excess of fiscal pressure, which must be lowered in order to restore profitability and attract new investors.

3. TANZANIA

3.1 Introduction

The United Republic of Tanzania was established on 26 April 1964 by the merger of Tanganyika and Zanzibar and covers a land area of 945,087 km². Approximately 41% of the total surface of Lake Tanganyika falls within Tanzania. The Lake is remote from the major population centres in Tanzania and the area in the vicinity of the Lake is generally sparsely populated except for the northern end. In addition to the lack of a sizable local market, road infrastructure linking the Lake to urban centres is scarce and thus hampering considerably the development of fish trade. As a result, industrial fishing on the Lake has never expanded and currently only three industrial fishing vessels operate in the Tanzanian's portion of the Lake. It should be emphasized that Tanzania controls one of the most important reserve of freshwater in the world by sharing two other major lakes of the Rift Valley, Lake Victoria and Lake Nyasa, respectively with Kenya and Uganda, and with Malawi and Mozambique. Most of Tanzania annual fish production is derived from Lake Victoria where an estimated 294,782 mt was produced in 1993 compared to an estimated 71,730 mt production the same year on Lake Tanganyika.

3.2 Fisheries legislation

The basic legislation on fisheries is the Fisheries Act, No.6 of 1970. It applies to both marine and freshwater fishing. It provides for the protection, conservation, development, regulation and control of fish, fish products and aquatic flora. It specifies that a Chief Fisheries Officer shall be appointed by the President and that a license is required to engage in fishing, collecting, gathering, manufacturing, selling, marketing, importing or exporting of fish, fish products, aquatic flora or aquatic flora products.

The Minister is granted wide general powers to make regulations for the purpose of protecting, conserving, developing, regulating or controlling the capture, collection, gathering, manufacture, storage or marketing of fish, fish products and aquatic flora. He is also empowered to make regulations on a wide range of specific issues, inter alia, in respect of fishing gears and seasons, the introduction of non-indigenous fish species, the use of explosives, poisonous or toxic substances, the protection of spawning grounds, and access to fishing grounds (number and size of fishing vessels). He is given the power to exempt any person or organization from all or any provisions of the Act or of any subsidiary legislation made under it, if in his opinion, it is the public interest to do so.

The Act also sets out the circumstances under which and the procedures whereby a search and/or a seizure can be properly conducted.

The Fisheries Principal Regulations, 1989, require every fishing vessels operating within Tanzanian waters to be registered and recorded on the central registry of fishing vessels. It sets out different classes of fishing vessels for licensing purposes and stipulates that all fishing vessels to which a license has been issued be kept in a seaworthy condition. It gives the Director of Fisheries power to attach conditions to licenses. Fishermen and fish dealers must hold a license in order to engage in fishing, collecting or export of fish or fish products. Reporting pertaining to fish killed, processed, preserved, packed, bought, sold, imported, exported or otherwise acquired or disposed of, is required from every licensee. Schedule 4 of the Act sets out fishing methods exempted from taking out a license. It includes fishing for prawns using cloth and fishing by means of a rod or line from the beach without using a fishing vessel whether for sport fishing or domestic consumption. Import of any non-indigenous live fish or fish products into Tanzania Mainland, or their transfer from one water body to another within Tanzania Mainland, as well as export of any live fish or fish products from Tanzania Mainland is subject to prior authorization from the Director of Fisheries.

It prohibits the use of explosives, poisons, and electric devices for fishing purposes throughout Tanzanian waters. In line with the "polluter pays principle" the Act states that any person who causes water pollution is required to clean polluted waters at his own expense. To that effect, the Director of Fisheries is directed to establish "a system of consultation and co-operation with appropriate officials".

Access of foreign fishing vessels to Tanzanian territorial waters for any purpose is generally prohibited, unless such entry is authorized under the Act, any other law or in compliance with any treaty or any international agreement. In respect of access to fishing grounds within Tanzanian territorial waters on Lake Tanganyika, the Director of Fisheries has indicated that conditions of access would be negotiated on a bilateral basis. He specified that foreign fishing vessels would be required to apply for a license and be compelled to land their catch in a Tanzanian port or pay royalties based on the quantity of fish caught.

The Fisheries (General Amendment) Regulations, 1994, adjust the rates for fishing vessels registration and transfer fee. They also modify the classes of fishing vessels for licensing purposes and sets out 4 categories: prawn trawlers, vessels for ordinary fish up to 11m, trawlers or vessels for ordinary fish, and sport fishing vessels. Sub-categories are established according to Gross Registered Tonnage or length of the fishing vessel. Typically, fees vary in accordance with the vessel or the owner being a citizen or a foreigner. Fees for collecting aquarium fish are also set out.

3.3 Conclusions

The law is applicable to both marine and freshwater bodies. The Marine Parks and Reserves Act, 1994, on the other hand applies only to marine waters, whereas the need to create protected areas in freshwater bodies may soon appear in order, for instance, to protect adequately the astonishing diversity of fish species living in Lake Tanganyika. Creation of "underwater protected areas" is one of the objectives of the GEF project on Lake

Tanganyika. The importance conferred by a country upon a fishery can certainly be measured in part by the number of regulations dedicated to that fishery. While a number of regulations dealing with fishing on Lake Victoria have been recorded, those applying strictly to Lake Tanganyika are scarce, reflecting the low priority given by the Tanzanian government to that fishery. There are no regulations addressing the issue of shared fish stocks (in shared Lakes or elsewhere). Regional cooperation for the management of fish stocks does not appear to be a priority of Tanzania's fishery policy, as reference to this principle of international law is nowhere to be found in the current legislation.

4. ZAIRE

4.1 Introduction

The Republic of Zaire, with an area of 2,344,885 km² is the second largest country in sub-Saharan Africa and is particularly rich in natural resources. Lake Tanganyika and the other great lakes of the Rift Valley (Lakes Kivu, Edward and Mobutu) lie along its Eastern border. Approximately 45% of the total surface of Lake Tanganyika is located within Zaire, representing the largest portion of the Lake. As in Tanzania, fishing development on the Lake faces major constraints: the Lake is remote from major urban centers; the area in the vicinity of the Lake is sparsely populated; road infrastructure linking the Lake to the rest of the country as well as along the Lake is poorly developed; and most of the Lake shore is hardly accessible. Since the beginning of the nineties where political instability settled in, deepening the economic crisis, the Fisheries Department has virtually ceased to function as it has been deprived of financial support. There is currently no budget allocated to fisheries. Most of civil servants working for the Fisheries Department have not been paid for a few years and those who do receive a salary are paid so little that there is absolutely no incentive to work properly. Communications between the Fisheries Department in Kinshasa and local fisheries officers working on the Lake are scarce if existing at all. Under these circumstances, it is impossible to evaluate what the current fish production of the Zairian portion of Lake Tanganyika is.

4.2 Fisheries legislation

The basic legislation on fisheries remains the 1937 decree on fishing and hunting (as amended for its fisheries provisions by a decree of 17 January 1957, a legislative ordonnance No. 52/273 of 24 June 1958 and a decree of 27 June 1960) which is also, as mentioned above, the principle law in Burundi. In brief, it will be recalled that the 1937 decree is essentially a framework law which allows the Regional Commissioner and Regional Governors to make regulations dealing with issues such as fishing seasons, fishing licenses, fishing gears (mesh size), the establishment of reserves where fishing is totally or partially prohibited and the introduction of non-indigenous species.

The Ordonnance No. 432/Agri of 26 December 1947 (as amended in 1952 and 1954) provides for the status of fish controllers¹⁹.

¹⁹ *Garde-pêche.*

A departmental regulation of 1981 prohibits fishing by means of electric devices, explosives or toxic substances throughout the Zairian territory and provides for the seizure of any such equipment and catch by the authorities²⁰.

Pursuant to a 1979 ordonnance²¹, a regulation of 1983²² specifies the rate of fishing permit fees and which authorities are entitled to issue these permits. It sets out the following categories of fishing permits: industrial fishing, artisanal fishing, traditional fishing and sport fishing permits. Prescribed fees to each of the above categories are obsolete.

An array of subsidiary regulations has been taken over the years at the regional level. In the Kivu region to which belongs Lake Tanganyika, it is worth mentioning a 1958 regulation dealing with fishing gears on Lake Tanganyika²³. It distinguishes three categories of fishing (industrial, artisanal and individual) based on the type of fishing unit (or type of boat) used, which in turn is defined in respect of the number of nets it can carry on board. Artisanal and industrial fishing are subject to prior obtention of an administrative authorization issued on the advice of a consultative commission. Authorization holders are required to regularly report the amount of catch and other relevant information. It also prohibits trawling and fishing by means of nets of a mesh size less than 4 mm. Despite its destructive impact on aquatic ecosystems, beach seining is allowed.

A 1959 regulation²⁴ modifying the aforementioned 1958 regulation on Lake Tanganyika limits to six the total number of industrial fishing permits that can be issued on the Northern portion of the Lake.

Of the four lacustrine states Zaire appears to be the only one to have issued specific regulations dealing with the commercial exploitation and export of ornamental fish²⁵. The instrument is a 1987 ministerial regulation²⁶ which provides that the exploitation of ornamental fish, defined as fish species which do not form part of the human diet, may only be undertaken by persons holding permits issued by the Minister. Such permits are renewable annually and can set a maximum quota of 75,000 specimens. A fee is payable for the permit and on the export of each specimen and the Minister is given power to suspend both the exploitation and export of such fish.

²⁰ *Arrêté départemental No. 002 du 9 janvier 1981 portant interdiction de la pêche par empoissonnement des eaux.*

²¹ *Ordonnance No. 79/244 du 16 octobre 1979 fixant les taux et règles d'assiette et de recouvrement des taxes et redevances en matière administrative, judiciaire et domaniale perçues à l'initiative du département de l'environnement, conservation de la nature et du tourisme.*

²² *Arrêté No. 0001/CCE/ADRE/83 du 26 janvier 1983.*

²³ *Arrêté No. 552/270 du 17 décembre 1958 portant réglementation de la pêche au filet dans le lac Tanganyika amendé par l'arrêté No. 5520/339 du 31 décembre 1959.*

²⁴ *Arrêté No. 5520/340 du 31 décembre 1959.*

²⁵ *In spite of not having devised comprehensive regulations on ornamental fish, Tanzania and Zambia levy taxes for ornamental fish collection. In addition, it should be noted that the Burundian draft law as it stands provides for the making of regulations on this issue.*

²⁶ *Arrêté No. 0055/CCE/AFECN/87 du 18 août 1987 portant organisation de l'exploitation et de l'exportation de poisson d'aquarium.*

A draft law providing a general legal framework for both marine and freshwater fishing was devised in 1985²⁷. It has never come into force but according to fisheries officers may soon be submitted to Parliament. Amendments to the text would certainly prove necessary as it is now dated.

4.3 Conclusions

The current political instability compounded by a severe economic crisis has rendered control of fishing impossible. With no money allocated to fisheries, it is difficult to envisage any improvement of the sectorial activity in the foreseeable future. It would appear that the only activities of the Fisheries Department at the moment are those undertaken on Lake Tanganyika in the framework of the GCP/RAF/271/FIN project. Fisheries law is dated and widely ignored for the reasons stated above. Thus, there is a need for a framework law which should be based on the draft law of 1985. Specific regulations of 1958 applying to Lake Tanganyika shall be revised and completed in order to incorporate protection and conservation measures covering both the resources and aquatic ecosystems, to strengthen the system of data collection and to bolster fishing control.

A regional institution in charge of promoting regional cooperation on management of fisheries is required to at least provide States with a forum where to share and exchange information in respect of shared fish stocks, fisheries policy and regulations, fishing techniques, production and any other matter of interest that would held parties devise a proper regional fisheries management tool.

PART II - INSTITUTIONAL OPTIONS FOR LAKE TANGANYIKA COOPERATION

1. Introduction

The national debates on the future of cooperation on management and protection of the Lake Tanganyika fisheries, which have been generated, respectively, in Burundi, Tanzania, Zambia and Zaïre by the FAO project GCP/RAF/271/FIN, have disclosed a substantial consistency of views in the four countries indicating that there is necessity and scope for regional cooperation in respect of perceived common problems relating to the management of the fisheries resources on the Lake, deriving, inter alia, from research, harmonization of fisheries policy and legislation, monitoring and surveillance, conservation and protection measures of both fish stocks and their habitats and access to fisheries. In response to this perception and in light of other regional experiences, notably on Lake Victoria, Lake Nyasa and Lake Kariba, the need for a quadri-partite institution for regional cooperation in the management of fisheries resources has been clearly advocated by the Fisheries Departments of the riparian states.

A variety of options are available on how such an institution could be designed. This second part of the paper will review the three options that have emerged out of the different

²⁷See, A. Tavares de Pinho's FAO report of 1985, titled "Législation des pêches au Zaïre" prepared in the framework of the GCP/INT/400/NOR project.

interviews conducted by the mission with Fisheries Officers and other Government authorities in each of the four countries.

The three basic institutions described thereafter are offered for the consideration of the member states of the CIFA Sub-Committee on Lake Tanganyika. The sequence in which these three options are presented in this paper does not reflect any sort of priority. However, it should be underscored that the feasibility of whichever option is eventually favored by the member states will depend largely on the socio-economic and political situation prevailing in the region at the time of implementation. Needless to say that the present regional, political and socio-economic situation does appear as one of the major constraints to any kind of cooperative endeavour at the moment.

2. Option one: a Regional Working Group of the FAO CIFA Sub-Committee for Lake Tanganyika

a) functions

This type of institution would be limited in scope and primarily directed at strengthening cooperation on management of fisheries resources among technical and local authorities working around the Lake. As a result, it is conceived as a regional forum facilitating exchange of information and experience pertaining to fisheries. It would be a purely advisory body making recommendations for and reporting to the FAO CIFA Sub-Committee for Lake Tanganyika.

Acting as an information forum for resource users, it would deliberate, inter alia, on the following issues:

- i) management of fish stocks;
- ii) conservation of fish stocks and aquatic ecosystems;
- iii) harmonization of fisheries legislation by identifying areas of collaboration;
- iv) cooperation in monitoring and surveillance of fishing activities;
- v) identification of areas of collaboration in the field of research.

b) Structure

The nature of the functions (see above) which have been attributed to this type of institution do not require a high-level body but a broadly based structure enhancing community's participation. As a result, it is proposed to establish a Regional Working Group assisted by National Working Groups based on user groups' participation (fishermen, policy makers, local authorities, traders, etc...). A national coordinator is appointed as head of each national working group. National coordinators would act as Secretary on a rotational basis and would call for meetings at regional level. "On a rotational basis" indicates that each national coordinator would have to serve as secretary for a specified period of time which can be one or two years. National Working Groups would meet at least once a year and

whenever it is deemed necessary. At the Lake level a Regional Working Group, composed of two representatives per country chosen from each National Working Group and the four national coordinators, would be established. This Regional Working Group would be an advisory body whose primary functions would be to strengthen cooperation among technical and local authorities directly involved in the management of fisheries resources on the Lake and to pursue the agenda set by the FAO CIFA Sub-Committee during the inter-sessional periods. It would thus meet at least once a year during the CIFA Sub-Committee inter-sessional periods and report to the latter. As a general rule, cost (including salary, per diem, travel expenses) of attending both regional and national meetings would be borne entirely by each country. However, the current socio-economic and political situation call for a transitional period during which riparian countries may be allowed to seek funds from external sources.

c) Advantages

i) FAO could, eventually and if necessary, envisage funding the functioning costs of the Secretariat of the Regional Working Group at an initial stage.

ii) It is certainly much easier to promote a collaboration arrangement through an existing body (CIFA Sub-Committee for Lake Tanganyika).

iii) By enhancing local participation through the National Working Groups, this option promotes fisheries community based management.

iv) Participation at national and regional levels can be expanded to be integrated with other sectors of the economy at a later stage depending on socio-economic development on the Lake. It is conceived as an evolutionary approach building up on existing activities on the Lake namely fishing and then expanding to other economic sectors. Consequently, in the event of the establishment of a multiple-function environmental institution as planned in the framework of the GEF project, there would not be any difficulty to either incorporate or link the Regional Working Group with such a structure.

d) Disadvantages

i) Low-level participation will not ensure high visibility which in turn may preclude strong political support.

ii) By being placed under the supervision of the CIFA Sub-Committee for Lake Tanganyika, the institution will not be able to achieve its independence.

iii) The creation of such a structure may require the revision of the terms of reference of the CIFA-Sub-Committee for Lake Tanganyika.

3. Option two: A Technical Committee with a permanent Secretariat

a) Functions

The Technical Committee would be designed to develop a common approach to

fisheries management of shared fish stocks in the Lake. Its main functions would consist of advising governments in devising fisheries management master plans, in the harmonization of fisheries legislation including enforcement procedures, licensing, level of taxation and conservation measures pertaining to both fish stocks and aquatic ecosystems, and in research planning and of disseminating information pertaining to fisheries management - i.e. data on fisheries production, research findings. As a result, this type of institution carries out purely advisory and coordinating functions.

b) Structure

The Technical Committee would stand on its own, independently of the CIFA Sub-Committee for Lake Tanganyika which would cease to exist²⁸. At the national level, the Technical Committee would be supplemented in its task by National Working Groups headed by a national coordinator, open to all fisheries resources users, and with consultative functions. Findings at the national level would then be reported to the meetings of the Technical Committee held every other year. Call for such meetings would be made by the permanent secretariat. To that effect, riparian states would have to work out an agreement determining which country would host the permanent secretariat and setting out the terms and conditions as well as the rate of financial contribution of each contracting party to its functioning. This type of institution consists of a high-level technical body at Fisheries Directors level, which provides policy guidance, thus composed of the Fisheries and Research Directors assisted by the four national coordinators. The Technical Committee would have a legal personality of its own, and its operating budget as well as the one of the permanent secretariat, would be contributed to by contracting parties as will be agreed upon.

c) Advantages

i) By setting up national working groups, this scheme would strengthen community participation in the management of the Lake fisheries.

ii) Regional initiative would ensure the riparian states a greater independence, provided that they can generate enough funds to operate the Technical Committee.

d) Disadvantages

i) Such kind of cooperation scheme would require time and initiative from the riparian countries in order to agree upon a legal framework - i.e. a protocol.

ii) The operating costs of such a body may prove to high for the riparian states at this stage.

It appears that the feasibility of establishing a Technical Committee hinges primarily on the countries being able to muster sufficient regional political will and commit adequate funding. In view of the present socio-economic and political situation in the region, financing

²⁸A transitional period during which the CIFA Sub-Committee continues to meet is certainly advisable in order to ensure the adequate functioning of the Technical Committee.

by the countries is certainly a major constraint. As to the mustering of the necessary political will to support that endeavor, one may express some doubts as each riparian state has its own set of priorities and pursues a different agenda.

4. Option three: Establishing an Organization based on the Lake Victoria Fisheries Organization model

a) Functions

This option consists of establishing an Organization for the Lake Tanganyika similar to the one that has been recently adopted for Lake Victoria. As configured in the relevant Convention²⁹, the Lake Victoria Fisheries Organization (LVFO) has mostly advisory, coordinating and liaison functions.

b) Structure

The LVFO has a complex four-tier structure, consisting of: a three-member Council of Ministers, which provides political guidance; a six-member Committee of the heads of the departments in charge of, respectively, fisheries management and fisheries research, with supervisory and general guidance functions; two technical committees; and a permanent international secretariat, headed by an Executive Secretary assisted by a Deputy and by professional and general service staff. In addition, a National Committee for Lake Victoria Fisheries is created in each member country, with consultative functions at the national level. The LVFO has the status of an independent intergovernmental organization, and has its own operating budget, funded in equal parts by the member States.

c) Advantages

i) The establishment of such a type of an organization reflects a strong political will to foster regional cooperation and a high financial commitment of each riparian country.

ii) By creating an independent intergovernmental organization, riparian states assert their capacity for managing their resources on their own.

d) Disadvantages

i) Funding is a major issue as the operating costs of the various institutions of the organization are high in regard to the financial resources available in each of the countries involved. As a result, the functioning of the organization becomes highly dependent on donor funding.

ii) Time is required to learn from the LVFO's experience. Therefore, it might be wise to wait for a few years before reproducing a similar organization in the area. In addition,

²⁹Convention for the Establishment of the Lake Victoria Fisheries Organization, adopted by the Conference of Plenipotentiaries held in Kisumu, Kenya, on 30 June 1994. As of this date, all of the three countries have ratified the Convention and it has entered into force as a result.

Tanzania which is a Party to the Convention establishing LVFO may be reluctant to enter immediately into a similar agreement on Lake Tanganyika.

iii) No less than six years were necessary for the parties to come to an agreement on LVFO among the three countries sharing a long tradition of cooperation³⁰ and a similar legal system based on common law. Such common factors do not exist in the context of Lake Tanganyika where riparian countries had no tradition of cooperation prior to the establishment of the CIFA Sub-Committee for Lake Tanganyika (only since 1977). In addition, the legal systems of Zaïre and Burundi, former Belgian colonies, are based on civil law, while Tanzania and Zambia, former British colonies, have adopted the common law system. Consequently, a lengthy negotiating process should be anticipated.

iv) The current socio-economic and political conditions prevailing in the region are likely to affect the stable operation of the organization.

PART III - CONCLUSIONS and RECOMMENDATIONS

The Recommendations below follow a brief summary of the regional socio-economic and political situation. Burundi is in a state of war. As of late August 1996, a peace process had still to be brokered. Fishing on the Lake is closed and the Fisheries Department has not been allocated any budget for the year 1996. Zaïre is confronted with a deep economic crisis characterized by a sky-high inflation rate. Political stability is unlikely to return prior to the forthcoming election which are scheduled for next year. Its fisheries administration does not currently have access to any financial resources. Tanzania and Zambia present a different picture. As far as Tanzania is concerned, one may question its willingness to agree upon a regional convention for fishing purposes on Lake Tanganyika. Tanzanian fisheries authorities have expressed the view that it would certainly be wiser to learn from the LVFO experience before embarking on a large scale regional fisheries cooperation agreement on Lake Tanganyika. They also expressed concern about Tanzania's financial capacity at participating fully to two fisheries organizations. It seems that the development of Lake Tanganyika fisheries is not a priority at the moment. Zambia is about to undertake a major shift in its fisheries policy by transferring fisheries management to local communities. To that effect a draft law has already been prepared by the Fisheries Department (see I.1). As Zambia is experiencing a sharp decrease in its fisheries production, it enthusiastically favors the negotiation of a cooperative arrangement on the Lake.

The general political and socio-economic climate prevailing at the moment in the region suggests that any unrealistic initiative is likely to fail. It was of the opinion of the mission that presently only little progress can be achieved. Status quo, however, has been ruled out on the grounds that countries, despite having to face tremendous hardships, clearly indicated their willingness to foster cooperation in the management of the fisheries of the Lake. Accordingly, of the three options presented in this paper option 1 seems the most suitable as it requires minimal financial commitment, while it implies a significant regional

³⁰Cooperation between Uganda, Tanzania and Kenya dates back to colonial days. In 1947, the East African Freshwater Fisheries Organization was formed. From 1967 through 1977, the East African Community was functional and promoted harmonization of legislation within the three countries.

and national involvement. By creating national and regional working groups gathering all people involved in fisheries, this option would encourage and strengthen cooperation among people living around the Lake, would supply valuable information to the CIFA Sub-Committee for Lake Tanganyika, would allow regular exchanges of information and technical experience, and would create a forum for discussions during the inter-sessional periods of the CIFA Sub-Committee for Lake Tanganyika.

As stated in the introduction, the establishment of an institution dealing with the Lake's biodiversity is one of the objectives of the GEF project, thus posing the problem of having either a single integrated structure or two specialized entities. As regional awareness of the need for conservation of the Lake biodiversity has yet to be developed, whereas ensuring sustainable development of the Lake's fisheries is recognized as a necessity, it is recommended to start with a specialized fisheries institution whose scope could be broadened at a later stage.

It is also recommended that the project GCP/RAF/271/FIN continue to be funded so that it can achieve in full its objectives. Untimely closure of the project may prove disastrous for the countries which expect to build their national fisheries management master plans upon the project's findings. As of now, national research programs would not be able to ensure the continuity, frequency and quality of the surveys undertaken in the framework of the project.

The terms of reference of CIFA Sub-Committee for Lake Tanganyika were first adopted by recommendation 77/2 of the third session of CIFA held in Burundi in 1977 and were revised during the fifth session of CIFA Sub-Committee held in Burundi in 1989. It is recommended that these terms of reference be reviewed in order to: i) promote community participation in the management of fisheries of Lake Tanganyika, ii) support long term arrangements to finance research activities on the Lake taking into consideration that the present project (GCP/RAF/271/FIN) has limited time span and may not be able to achieve in full its objectives, iii) prioritize the CIFA Sub-Committee's functions.

National fisheries legislation and regulations are generally outdated and poorly enforced. Consequently, it would be important that at national level each riparian state undertakes a thorough revision of its basic fisheries legislation. In the meantime, common approaches to the management of the shared resources should be developed in order to facilitate harmonization of legislation. To that effect, the four lacustrine states should specify which areas of the law need to be harmonized.

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