

RESEARCH FOR THE MANAGEMENT  
OF THE FISHERIES ON LAKE  
TANGANYIKA

GCP/RAF/271/FIN-TD/95 (En)

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GCP/RAF/271/FIN-TD/95 (En)

June 1999

REVIEW OF INSTITUTIONAL AND LEGAL ASPECTS RELATING TO THE  
MANAGEMENT OF LAKE TANGANYIKA FISHERIES

by

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FINNISH INTERNATIONAL DEVELOPMENT AGENCY

FOOD AND AGRICULTURE ORGANIZATION  
OF THE UNITED NATIONS

Bujumbura, June 1999

#### PREPARATION OF THIS DOCUMENT

This document was prepared in close cooperation with the project FAO/NORWAY Programme of Assistance to Developing Countries for the Implementation of the Code of Conduct for Responsible Fisheries (FISHCODE) GCP/INT/648/NOR. As a result it is published by both projects.

The conclusions and recommendations given in this and other reports in the Research for the Management of the Fisheries on the Lake Tanganyika Project series are those considered appropriate at the time of preparation. They may be modified in the light of further knowledge gained at subsequent stages of the Project. The designations employed and the presentation of material in this publication do not imply the expression of any opinion on the part of FAO or FINNIDA concerning the legal status of any country, territory, city or area, or concerning the determination of its frontiers or boundaries.

## **PREFACE**

The Research for the Management of the Fisheries on Lake Tanganyika project (LTR) became fully operational in January 1992. It is executed by the Food and Agriculture Organization of the United Nations (FAO) and funded by the Finnish International Development Agency (FINNIDA) and the Arab Gulf Program for the United Nations Development Organization (AGFUND).

LTR's objective is the determination of the biological basis for fish production on Lake Tanganyika, in order to permit the formulation of a coherent lake-wide fisheries management policy for the four riparian States (Burundi, Democratic Republic of Congo, Tanzania, and Zambia).

Particular attention is given to the reinforcement of the skills and physical facilities of the fisheries research units in all four beneficiary countries as well as to the build-up of effective coordination mechanisms to ensure full collaboration between the Governments concerned.

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For bibliographic purposes this document  
should be cited as follows:

**Cacaud, P** , Review of Institutional and Legal Aspects  
**1999** Relating to the Management of Lake Tanganyika  
Fisheries. FAO/FINNIDA Research for the Management  
of the Fisheries of Lake Tanganyika.  
**GCP/RAF/271/FIN-TD/95 (En): 62p.**

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## **1. INTRODUCTION**

One of the major functions of the CIFA Sub-Committee for Lake Tanganyika, which was established in 1977, is to facilitate the regional development of Lake Tanganyika fisheries. Recognition of the need to strengthen regional integration of fisheries management effort led to the establishment of the Lake Tanganyika Research Project (LTR) in the early nineties. Primary LTR objectives are to expand scientific understanding of fish production dynamics in the Lake and use that knowledge basis to develop a common regional approach to the management of its fisheries resources and prepare a regional fisheries management plan. Establishment of a regional institutional structure to advise and coordinate national governments' actions in the implementation of the regional fisheries management plan was simultaneously envisioned and led to the identification of three institutional options (section 5).

Cooperation on the lake faces serious obstacles. The lake is divided into four unequal national sectors (Tanzania 41%, DRC 45%, Burundi 8% and Zambia 6%) between countries, which do not have a tradition of cooperation, do not regard the development of inland fisheries as a priority and do not share a common legal heritage. In addition the general political climate, which prevails in the region since the early nineties, further complicates the conclusion of an agreement of cooperation between the four lacustrine States.

The present document comprises 6 major sections including the introduction. The findings and recommendations set forth in the regional fisheries management plan are summarized in section 2, which also describes the approach and principles that have guided the formulation of the regional fisheries management plan. Section 3 examines national fisheries management institutions and briefly highlights national fisheries policy objectives. A detailed review of national fisheries legislation, including texts in draft form, is provided for in section 4. Section 5 proceeds with a review of the three institutional options for regional cooperation in fisheries management on the lake. Lastly, section 6 includes an assessment of the adequacy of each national legal framework to carry out the implementation of the measures proposed in the regional fisheries management plan, prescribes for each country involved a series of modifications to fisheries legislation to be undertaken and set out the general outlines of supplementary legislation.

## **2. FRAMEWORK PLAN FOR LAKE TANGANYIKA FISHERIES MANAGEMENT**

The LTR report on regional framework planning for Lake Tanganyika fisheries management prepared by Reynolds (1998) discusses Lake Tanganyika fisheries management issues<sup>1</sup> and

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<sup>1</sup> Key management issues to be addressed were identified in previous assessments of the fishery situation in both the Lake Tanganyika and the East African Great Lakes Region (Greboval 1990, 1992; Hanek 1994; Hanek and Everett 1995; Cacaud 1996; Maembe 1996).

presents a provisional Framework Management Plan for Lake Tanganyika (FMP).

Management objectives and measures set out in the draft FMP are based on the findings of the two major programmes carried out in the framework of LTR: the scientific sampling programme (SSP) and the programme of socio-economic (SEC) investigation. The former, which started in July 1993 to be completed in July 1996, consisted of six major components including hydrodynamics, limnology, fish and zooplankton biology, remote sensing, fish genetics and fisheries statistics. The latter was initiated in 1997 in order to supplement the former with much needed socio-economic information to complete the foundation work for the devising of a regional framework management plan. By involving local user groups in fishery problem evaluation and review of options for future actions, SEC ensured local stakeholders' participation and input in the management planning process. Major findings and recommendations are summarized below.

## **2.1 Approaches and principles guiding the elaboration of FMP**

The need to adopt a responsible fisheries management approach for the management of Lake Tanganyika fisheries, as developed in the Code of Conduct for Responsible Fisheries (CCRF), is emphasized throughout Reynolds' report. While FMP clearly endorses such an approach, it also adheres to the general principles set out in article 6 of CCRF, to the provisions of article 7 of CCRF dealing with fisheries management and to the provisions of FAO technical guidelines on fisheries management<sup>2</sup>.

The management process is based on the fundamental recognition that fishing mortality has to be regulated in one way or another. A number of approaches can be used to do so, each one having different efficiencies for regulating fishing mortality and simultaneously different implications on, notably, fishers. Hence, the necessity for fisheries managers to evaluate and anticipate the social impact that proposed management measures may have on stakeholders prior to adopting such measures.

Proposed management measures as well as their degree of acceptability by stakeholders were reviewed and assessed through three key themes<sup>3</sup>: a) options to regulate fishing; b) limiting access; and c) management in partnership. Options to regulate fishing include: a) technical measures for the restriction of gear and operating areas and time; and b) input (effort) and output (catch) control. Such approach is reflected in the presentation of the proposed management measures contained in FMP.

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<sup>2</sup> FAO Technical Guidelines for Responsible Fisheries, Fisheries Management, No. 4, 1997.

<sup>3</sup> This approach is modelled on the *Management Measures and Approaches* section of the FAO Technical Guidelines for Responsible Fisheries on Fisheries Management. See note 2 above.

## **2.2 Observations**

Major findings and observations of SSP, SEC and LTR reports on institutional and legal issues as reviewed through the three key themes enunciated above are outlined below.

### **2.2.1 General fisheries policy**

Formulation of fisheries policy: There appears to be a general need within all four lacustrine states for a revision or clarification of fisheries policy instruments in order to stress their adherence to a responsible fisheries management approach. With regard to the shared fisheries of Lake Tanganyika, there is a need within the four lacustrine states for harmonizing their fisheries policy.

### **2.2.2 Options to regulate fishing**

Over-exploitation or full exploitation of certain stocks: There is clear evidence of over-exploitation of *L. stappersi* in the southernmost part of the lake, owing to uncontrolled growth of the industrial fishery. High exploitation pressure on *L. stappersi* within extreme northern waters of the lake and on *S. tanganyicae* on both west and east coasts north of Karonda are also reported, resulting from a high concentration of artisanal lift net units.

Beach seining: Beach seining proves to be a particularly destructive method of fishing on the lake, both because it exploits inshore fish habitats and nursery areas and because of its highly unselective nature. Beach seining poses a serious problem in the south end of the lake, where it inflicts considerable harm on the juvenile stock of *L. miodon*, while the beach seine is clearly the gear of choice amongst artisanal fishers.

### **2.2.3 Limiting access**

Open access regime: The open access regime to Lake Tanganyika fisheries, which prevails today, will be impossible to sustain in the face of growing population pressures within the Lake Tanganyika region. As a result, maintenance of such regime will inevitably lead to the depletion of the lake fisheries.

### **2.2.4 Management in partnership**

Co-management: Departure from centralized decision-making process and introduction of co-management mechanisms are strongly advocated.

Attitudes towards co-management arrangements appear to vary by country and fisherfolk sub-groupings and would therefore warrant flexible approaches.

These observations constitute the core policy elements of the FMP on the basis of which conservation and management measures referred to as "framework recommendations" are formulated.

## **2.3 Framework recommendations**

Framework recommendations laid out in the FMP are reproduced below (in italics) and accompanied by comments describing their perceived degree of acceptability based on the findings of the SEC survey.

### **2.3.1 General fisheries policy**

#### *Recommendation 1*

*The CCRF should be adopted (in each of the four lacustrine countries) as the foundation for shared policy for the shared fisheries of Lake Tanganyika.*

Adoption of the CCRF as an instrument of reference for the formulation and implementation of appropriate management measures by the fisheries management authorities of all four lacustrine states should not be objected as such authorities have expressed their support for the adoption of responsible fisheries management approaches. In addition, it should be emphasized that the CCRF is a voluntary instrument, thus indicating that its provisions have no binding effect<sup>4</sup>.

### **2.3.2 Technical measures to regulate fishing**

- Gear restrictions

#### *Recommendation 2*

*Management measures should aim at the total retirement/phasing out of beach seining on the lake.*

Beach seining poses a particularly serious problem in Zambian waters. In this regard, it is encouraging to note that Zambian fishers expressed positive views towards some type of control on beach seining. However, imposition of a ban on beach seining was overwhelmingly rejected.

- Area and time restrictions

#### *Recommendation 3*

*Establishment of beach seining prohibited areas.*

#### *Recommendation 4*

*Establishment of prohibited industrial fishing areas in both the extreme north and south sub-basins of the lake should be considered.*

Stricter controls on industrial fishing are widely supported by both artisanal and traditional fishers.

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<sup>4</sup> It is important to note, however, that the CCRF contains provisions that may be or have already been given binding effect by means of other obligatory legal instruments.

### **2.3.3 Input/output controls to regulate fishing**

#### *Recommendation 5*

*Determination of licensing ceilings (maximum number of fishing licenses that can be issued at any given time in respect of any area) for both industrial fishing units in the south and lift net units in the north. In the case of purse seine fishery, effort should be reduced to levels that prevailed ten years ago. Therefore, licensing measures should aim at the retirement or transfer to other fishing zones of industrial fishing units that entered the southern fishery within the last decade.*

### **2.3.4 Access restriction**

#### *Recommendation 6*

*Use licensing systems as a means to control individual entry into the fishery and through a process of consultation and negotiation begin creating a use rights structure based on control of particular inshore zones or territories by particular communities.*

Data provided by the SEC survey convey two major trends with regard to fishers' attitudes toward various forms of access restriction to the Lake fisheries. Firstly, fishers are overwhelmingly opposed to the idea of imposing any sort of restrictions on individual access to the Lake fisheries as perception of the idea of establishing fisher quotas clearly indicates. Such trend is corroborated by the general support for maintenance of an open access regime expressed by fishers throughout the Lake, except in DRC where a slight majority of both artisanal and traditional fishers opposed the status quo proposition. Secondly, views towards restricting access to fishing grounds located either within another district (within the same country) or within the territorial waters of another State vary substantially from one country to another.

### **2.3.5 Management in partnership**

#### *Recommendation 7*

*Provide for community-based management (co-management, participatory management, management in partnership) structures and mechanisms having due regard to local circumstances and predispositions, possibly through pilot initiatives within selected sites. Use approaches being developed in Zambia as reference experiences.*

The SEC survey indicates that views towards co-management vary by country and by fisherfolk sub-groupings. Thus, introduction of co-management schemes would have to be adjusted to local circumstances and degree of acceptability of such type of management schemes.

## **2.4 Accompanying measures**

A series of accompanying measures aiming at facilitating the implementation of the provisional framework has been devised and include institutional and legal provisions, developmental initiatives and research and monitoring follow-ups.

### **2.4.1 Institutional measures**

LTR assessment confirm that national fisheries authorities of the four lacustrine states are all strong advocate of enhanced regional co-operation for the management of Lake Tanganyika fisheries (see section 5 below).

### **2.4.2 Legal measures**

As LTR reports have well demonstrated, updating and review of framework fisheries legislation of the four lacustrine states is required to carry out the objectives set out in the framework plan. Likewise, fisheries regulations relating to Lake Tanganyika are outdated and incomplete thus warranting an overall revision of such regulations in light of the framework recommendations mentioned above (see section 6 below).

### **2.4.3 Developmental measures**

Further technical assistance with respect to fishing technology and fisheries/training/educational institutions (strengthening of existing institutions) will be required to facilitate implementation of framework plan elements.

Efforts to phase out beach seine fishery will be successful only if simultaneously alternative fishing methods are introduced.

### **2.4.4 Research and monitoring**

Two types of measures are to be considered in relation to research and monitoring and include the organization of "community referenda" and the implementation of lakewide monitoring programme including periodic collection of information on selected socio-economic parameters.

## **2.5 Comments**

- The framework fisheries management plan is silent on the issue of traditional fishing practices and customary fishing rights<sup>5</sup>, while legal frameworks, notably in DRC and Burundi<sup>6</sup>, formally recognize the existence of such rights.

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<sup>5</sup> It seems that this aspect has not been discussed due essentially to time constraints and lack of available information. Note, however, that the phrasing of recommendation 7 "*having due regard to local circumstances*" implies the taking into consideration of local practices, including customary rights.

<sup>6</sup> Article 59 of the 1937 Decree on Hunting and Fishing applicable to both Burundi and DRC recognizes customary fishing rights. While the Burundi draft fisheries law does not address this issue any longer that of DRC continues to recognize customary fishing rights. Moreover, the community-based management system

It should be emphasized that where existing such rights may have far reaching implications on a number of issues such as management in partnership/community-based management, e.g. determination of the composition of co-management structures/participation of traditional authorities or devolution of management functions to traditional authorities; and access to fishing grounds, e.g. control of access by local communities. Therefore, it would be advisable to address this issue in the framework fisheries management plan, even though only few relevant updated information may currently be available.

- The wording of recommendation 6, which encourages "*the creation of a use rights structure*" through a consultation and negotiation process, suggests that either no territorial use rights currently exist or that no consideration should be given to existing territorial use rights. It would therefore be advisable to modify the wording of recommendation 6 in order to reflect the possible existence of territorial use rights and specify that where existing such rights might provide the basis upon which a "*use rights structure*" would be established.
- Another issue that may warrant consideration and which is not addressed in the FMP is that of aquarium fish. Also, it might be advisable to include in the FMP some comments, possibly some recommendations, with regard to a number of issues such as the type of legal regime that should be adopted at national level to regulate exploitation and farming of aquarium fish (authorization regime)<sup>7</sup>, the establishment of quotas in respect of certain species of aquarium fish, and the establishment of a list of aquarium fish/endangered species of fish in Lake Tanganyika.
- As regards environmental issues, the FMP recognizes the importance of environmental factors on fish abundance, stresses the need to establish fish reserves to protect fish habitats and breeding grounds and emphasizes the necessity to develop an environmental education program to build local awareness. The FMP, however, fails to encourage the continuation of close cooperation and collaboration between the Lake Tanganyika Biodiversity Project (LTBP) and LTR<sup>8</sup>. Enhancement of cooperation and collaboration between the two projects should be encouraged and included in the FMP as an accompanying measure.
- By recommending each lacustrine State to set limits on the number of industrial fishing units authorized to fish within the waters of Lake Tanganyika under their respective

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elaborated in Zambia for the management of Lake Kariba fisheries is, to a large extent, based on the recognition of traditional authorities and their powers.

<sup>7</sup> In Tanzania, licenses are required to carry out aquarium fishing operations (Fisheries Principal Regulations 1989). In Zambia, a special fishing license is required to collect aquarium fish in prescribed areas (Fisheries Act 1974). In Burundi, while the basic fisheries law does not address the issue of aquarium fish, the draft Fisheries Regulations subject the farming, exploitation and exportation of aquarium fish to a regime of authorization.

<sup>8</sup> Areas of collaboration between the two projects include hydrodynamic modelling.

control, the FMP seeks to both limit the number of new entrants in the lake fisheries and ensure the redeployment of industrial fishing units, notably in Zambia where undue fishing pressure has been observed. Redeployment of such units is likely to require the negotiation and conclusion of access agreements between lacustrine States. Hence, negotiations of such type of agreements may be encouraged and included in the FMP as an accompanying measure.

- The experience of Lake Victoria has shown that the introduction of non-indigenous species of fish and aquatic plants may, by altering the balance of aquatic ecosystems, pose a serious threat to indigenous species of fish and thus to the lake fisheries. Also, in order to avoid a repeat of what occurred in Lake Victoria, it might be wise, as provided in Burundi<sup>9</sup>, to strictly ban throughout Lake Tanganyika and river systems connected therewith the introduction of any non-indigenous species of aquatic fauna and flora. Alternatively, a list of species of fish and aquatic plants that can be safely introduced could be established. This is particularly important for countries like Zambia, where the development of aquaculture activities is actively encouraged<sup>10</sup>.

### **3. REVIEW OF NATIONAL FISHERIES POLICIES AND NATIONAL INSTITUTIONAL FRAMEWORKS PERTAINING TO FISHERIES MANAGEMENT**

Review of national fisheries policies<sup>11</sup> and national institutional frameworks pertaining to fisheries presented below draws essentially on reports prepared by Tavares (1985), Bonucci (1992), Maembe (1996), Cacaud (1996) and Kuemlangan (1997). This section outlines the major objectives of national fisheries policy, describes the organizational structure of national fisheries management authorities, reports on proposed institutional changes (where applicable), and identifies common institutional framework deficiencies.

#### **3.1 Zambia**

##### **3.1.1 Fisheries policy**

The principal objective of Zambian fisheries policy is to rationally exploit fisheries resources occurring within its waters in order to secure fish availability on local markets and thus contribute to ensure food security. Specific policy objectives applicable to Lake Tanganyika fisheries include: increasing fish production, improving fish stocks and fish habitats conservation awareness, preventing the use of

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<sup>9</sup> Article 31 of the draft fisheries bill stipulates that “the introduction of any non-indigenous aquatic organisms in the waters of Lake Tanganyika and in any waters connected therewith is strictly prohibited.”

<sup>10</sup> Introduction of aquaculture in the Lake would also require lacustrine States to address the issue of escapees from fish farms. Careful consideration should be given to the possible impact of escapees on indigenous species of fish.

<sup>11</sup> Note that only principal objectives set out in national fisheries policies are reproduced in this section. In depth analysis of national fisheries policies was not possible since fisheries policy documents were not made available to the consultant.



destructive fishing methods, improving the economic status and conditions of small scale fishers, fish farmers, boat builders and fish traders, developing and implementing an applied research program and a comprehensive data gathering scheme and encouraging participation of communities in fisheries management.

### **3.1.2 Institutional framework and proposed institutional changes**

#### **a) Central level**

##### **(i) Existing institutional framework**

Fisheries management in Zambia is the responsibility of the Department of Fisheries (DOF) placed under the Ministry of Food and Agriculture<sup>12</sup>. DOF is headed by a Director. Assisting the Director are two Assistant Directors, one in charge of aquaculture, the other in charge of fisheries. DOF is divided into 4 divisions and a training branch, namely: the Fisheries Research Division, which directs and coordinates scientific research activities in capture fisheries; the Aquaculture Research Division, which coordinates research activities related to aquaculture; the Fisheries Management Division, which is responsible for fisheries management; the Aquaculture Extension and Development Division, which is responsible for the general development of aquaculture and a training branch, which develops and coordinates departmental training programs.

##### **(ii) Proposed institutional changes**

The Ministry of Food and Agriculture is considering a restructuring of its organizational structure so as to reduce the size of the Ministry and improve its efficiency. Under the proposed structure, the Ministry of Food and Agriculture would comprise two major departments: the Field Services Department and the Research and Specialists Department. The organizational structure of DOF, which would be transformed into a Fisheries Service, would be modified accordingly. Thus, fisheries management and enforcement functions of DOF would be dealt with by the Field Services Department while aquaculture and research (both aquaculture and capture fisheries) would be dealt with by the Research and Specialists Department. The Fisheries Service would be established by statute in order to secure the stability of its organizational structure<sup>13</sup>. Its principal function would be to ensure that all necessary measures be taken to achieve the sustainable use of Zambian fisheries. The Fisheries Service would be headed by a Commissioner of Fisheries appointed by the Minister of Food and Agriculture, who would be responsible for both the administration of the Fisheries Act and the execution, control

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<sup>12</sup> Under the existing structure, the Ministry of Food and Agriculture is divided into four major departments or services, namely, the Agriculture, Veterinary and Disease Control Services, the Fisheries and National Agricultural Information Services, the Policy and Planning Department and the Food Security, Procurement and Supplies Department.

<sup>13</sup> Creation of a Fisheries Department is not provided for under the Fisheries Act No.21 of 1974.

and coordination of the various functions of the Fisheries Services.<sup>14</sup>

The draft fisheries bill provides for the establishment of a Central Fishery Board. It is an advisory body directly linked to the Minister, whose main function is to coordinate the actions of the Fisheries Service and Fishery Management Boards. Specific functions of the Central Fishery Board include: advising and devising guidelines on the conservation, management, development and regulations of fisheries, recommending and promoting public awareness campaigns on conservation of fisheries resources and reviewing of fisheries management plans. The Central Fishery Board consists of 12 members of whom 7 represent fishing communities<sup>15</sup>, thus ensuring the taking into consideration of local views and concerns in the decision-making process.

b) Regional and local levels

(i) Existing institutional framework

In the Provinces, DOF is represented by Provincial Fisheries Officers, who are responsible for fisheries management matters. The Zambian territorial waters of Lake Tanganyika fall within the jurisdiction of the Northern Province Fisheries Development Officer stationed at Mpulungu. The Mpulungu station comprises a fisheries research unit, a fisheries management unit in charge of enforcement and a fisheries training unit<sup>16</sup>.

The Fisheries Act, No. 21 of 1974 empowers the Minister to declare by statutory order any area of water to be a commercial fishing area and to make regulations in respect of such areas. For the better management of commercial fishing in any commercial fishing area, the Minister may appoint a Fishing Development Committee<sup>17</sup>. Such managerial structures, however, have never been established.

A framework for co-management (community-based management) for the inshore fisheries of Lake Kariba was developed in consultation with local and traditional authorities, fishers, DOF and representatives of non-governmental organizations. Such framework is now operational and being implemented by DOF under an administrative arrangement. The basic elements of a co-management scheme, based on Lake Kariba's experience, are four-folds: (i) relocation, regrouping and organization of fishers that were scattered around the lake into a few designated villages and camps; (ii) setting up of Village Management Committees

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<sup>14</sup> Part II of the draft Fisheries Bill on Administration (sections 3-6), based on the draft text presented in the FAO report on Zambia Draft Fisheries Legislation (Kuemlangan 1997).

<sup>15</sup> The draft fisheries bill stipulates that representatives of fishing communities are appointed by the Minister but does not specify the criteria governing the selection of such members.

<sup>16</sup> Research activities of the Mpulungu station have been integrated in the research activities conducted by LTR.

<sup>17</sup> Section 12 of the Fisheries Act, No. 21 of 1974. With regard to the composition of Fishing Development Committees, the Act specifies that members of such committees shall be appointed by the Minister.

(VMCs); (iii) division of both the waters and shores of the lake into zones; and (iv) establishment of Zonal Committees chaired by traditional Chiefs. Functions of VMCs are primarily directed at implementing an integrated community-based approach to manage aquatic resources in the lake, enforcing fisheries regulations and collecting license fees. Zonal Committees supervise, assist and coordinate the work of VMCs.

## (ii) Proposed institutional changes

Endorsing a like approach, the draft fisheries bill empowers the Minister to declare any "fishery waters or any geographical area" to be a fishery management area. The Minister may establish a decentralized fisheries management body<sup>18</sup>, known as a Fishery Management Board, in respect of any fishery management areas so declared. Fishery Management Boards, which serve coordinating and advisory functions, are designed to facilitate cooperation between the Fisheries Service and local fishing communities, promote the rational utilization of fisheries resources at local level, and facilitate participation of local communities, traditional authorities and non governmental organizations in the implementation of fisheries conservation and management measures. Fishery Management Boards may also propose and recommend to the Fisheries Service the adoption of specific measures in order to develop fisheries in the area under their jurisdiction. In addition, Fisheries Management Boards are required to provide regular information on the status of fisheries resources occurring in the area in respect of which they have been established<sup>19</sup>. Fishery Management Boards consist of 10 members of whom 6 represent traditional authorities and fishing communities, thus ensuring participation of local communities in the decision-making process.

Interestingly, the draft fisheries bill makes provision for the Minister to establish and regulate community-based or decentralized fisheries management structures. It further specifies that the Minister may grant or delegate powers to any person, classes or groups of persons to enforce or implement fisheries conservation and management measures.

### 3.1.3 Major constraints

Major constraints affecting the efficiency of DOF are as follows -

- Inadequate budget

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<sup>18</sup> The Minister has full discretionary power to decide whether or not to establish a Fishery Management Board in respect of any fishery management area. Hence, the draft fisheries bill provides that "where no Fishery Management Board is established for a Fishery Management Area, the Commissioner shall exercise the functions of a Fishery Management Board in that Fishery Management Area" (section 21.1).

<sup>19</sup> Note that the draft fisheries bill authorizes the Minister to delegate any of his or her powers under this Act to the Commissioner or, in consultation with the Commissioner, to a Fishery Management Board or any person or groups of persons, for a specified period of time and subject to such conditions as he or she may determine. The broad scope of this enabling provision seems to indicate that regulatory powers could be delegated under certain conditions to Fishery Management Boards. If such were the case, this provision would thus be inconsistent with the advisory/coordinating nature of these bodies, which as such should not enjoy any regulatory powers.

- Limited capacity to enforce fisheries regulations due to insufficient staffing and lack of means of transportation

Principal fisheries management issues to be addressed in Zambian waters include -

- Inadequate information on the state of the fish resources, their abundance and causes of fluctuation
- Use of unauthorized fishing gear increases pressure on immature fish. In this regard, beach seining poses a particularly serious problem because of its highly unselective nature
- Unrestricted access to Zambian fishing grounds by industrial fishing units threatens the sustainable use of the resources within Zambian territorial waters of Lake Tanganyika
- Lack of available fishing gear on local markets compels fishermen to use available means to catch fish

### **3.2 Burundi**

#### **3.2.1 Fisheries policy**

The main objective of Burundi fisheries policy is to exploit fisheries resources in a sustainable manner with a view to ensuring food for local consumption (food security), creating employment and providing income.

#### **3.2.2 Institutional framework**

Fishery matters are administered by the Department of Water, Fisheries and Aquaculture placed under the Ministry of Agriculture and Livestock<sup>20</sup>. With regard to data and information collection, the Department stationed field enumerators on 16 selected fish landing beaches<sup>21</sup> along Lake Tanganyika's shoreline where they collect catch information from traditional and artisanal fishers who are required to land and sell their catch in designated sites. Catch from industrial fishing units is sold directly on the central market in Bujumbura where catch data are recorded. Fisheries matters on Lake Tanganyika are directly administered by the central fisheries administration based in Bujumbura, since the three Provinces bordering the lake, namely, Bururi, Bujumbura and Makamba have no competence to deal with such matters.

### **3 3.2. Major constraints**

Major constraints facing the Department of Fisheries are -

- Inadequate budget to support operational activities and extension services
- Lack of motivation for the extension and field enumerators (low pay)

<sup>20</sup> Decret no. 100/154 du 19 octobre 1993 portant organisation du Ministère de l'agriculture et de l'élevage (not made available to the mission).

<sup>21</sup> As of 15 January 1999, 14 of the 16 official landing beaches are open based on information provided by George Hanek, LTR, in Bujumbura, Burundi.

- Lack of reliable means of transportation
- Inadequate staffing

Excessive taxation<sup>22</sup> imposed on industrial fishing units forced most of the industrial fleet to stop fishing within Burundi territorial waters. Complete reassessment of the taxation scheme applicable to industrial fishing units was recommended and included<sup>23</sup>-

- Introduction of a simplified taxation scheme
- Cancellation of any tax based on the amount of fish sold (tax per kg of fish sold)<sup>24</sup>
- Adjustment of taxation level
- Avoidance of double taxation

### **3.3 Democratic Republic of Congo**

#### **3.3.1 Fisheries policy**

The Congolese fisheries policy emphasizes the need to increase fish production to provide animal proteins for local populations and meet national food needs (food security)<sup>25</sup>.

#### **3.3.2 Institutional framework**

##### **a) Central level**

Fisheries management in the DRC is the responsibility of the National Service for Development of Fisheries (SENADEP)<sup>26</sup> placed under the Ministry of Environment, Nature Conservation and Tourism.

The 1985 draft fisheries bill<sup>27</sup> establishes a national advisory body, known as the national fisheries committee. Its principal function is to advise the Fisheries Commissioner on all matters related to the management and development of fisheries.

##### **b) regional and local level**

The DRC is divided into eight regions, which in turn are sub-divided into sub-regions and zones. SENADEP is represented at regional level by a "regional coordinator", at sub-regional level by a "head of office" and at zone level by a "supervisor" (Tavares, 1985). Four different administrative zones, namely, Moba and Kalemie in the South and Uvira and Fizi in the north, border Lake Tanganyika's waters falling under DRC jurisdiction, representing an estimated shoreline of

<sup>22</sup> No less than ten different taxes imposed on industrial fishing units were identified in 1992 (Bonucci and Roest 1992, at p. 6).

<sup>23</sup> Id., at p.7

<sup>24</sup> Adoption of such measure would require the abrogation of Ordinance No. 710/163 of 1982 establishing a tax on fish. Ordonnance No. 710/163 du 28 juillet 1982 portant creation d'une taxe sur le poisson vendu.

<sup>25</sup> A comprehensive action plan was developed in 1986 through FAO assistance, but was never implemented due to lack of funding and political instability.

<sup>26</sup> SENADEP is the French acronym which stands for "Service National pour le developpement des Peches".

<sup>27</sup> The 1985 draft fisheries bill is presented in the FAO report on Fisheries Legislation in Zaire (Tavares 1985). Insofar as the consultant was able to determine, this is the most recent bill drafted on this matter.

795 km (Reynolds, 1998). Therefore, implementation of fisheries policy and management plan for Lake Tanganyika fisheries requires coordination and harmonization of administrative actions at regional level. The ongoing civil war in the eastern part of the country has completely disrupted the work of local administration and that of the Uvira research station (Centre de Recherche en Hydrobiologie) located in the northern section of Lake Tanganyika.

The Ordinance No. 274/Agri. Of 1945<sup>28</sup> provides that the Governor may create local fisheries committees at provincial level<sup>29</sup>. Each fisheries committee is made of at least four members<sup>30</sup>. Principal functions of these committees are three-folds: advise the competent authority on fisheries regulations, propose creation of fisheries reserves and assess the state of fisheries in their area of jurisdiction. Although this text has not been technically abrogated, it is no longer enforced.

The 1985 draft fisheries bill establishes regional fisheries committees to advise the Governor on all fisheries related matters. In particular, they are required to prepare fisheries management plans in respect of the fisheries lying in their area of jurisdiction and report regularly on the state of fisheries occurring therein. In addition, they may propose conservation measures such as authorized fishing methods, closed seasons or minimum mesh sizes and make recommendations for the creation of fisheries reserves. The make-up of regional fisheries committees is flexible in order to ensure the broadest participation possible. Also, regional fisheries committees comprise 6 permanent members representing all major interested administrations or institutions and a minimum of another 10 members representing fishing communities, experts (economy, law, science etc.) and local administrations.

### **3.3.3 Major constraints**

SENADEP is unable to carry out its duties and functions owing to the following reasons -

- Insufficient or inexistent budget
- Motivation of central, regional and local staff is very low (low pay or no pay at all)
- Lake Tanganyika area is cut off from central administration based in Kinshasa (ethnic conflicts)<sup>31</sup>
- Absence of reliable data
- Inadequate staffing and training at all levels of administration
- Lack of basic work equipment
- Absence of enforcement

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<sup>28</sup> Ordonnance No. 274/Agri. du 26 septembre 1945.

<sup>29</sup> In 1947, a local fisheries committee was established in the Kivu Province where part of Lake Tanganyika lies. Nowadays, this committee is no longer operating.

<sup>30</sup> Note that participation of fisher representatives is not explicitly mentioned.

<sup>31</sup> As of time of writing, Lake Tanganyika are is under rebels' control.

### **3.4 Tanzania**

#### **3.4.1 Fisheries policy**

Tanzania fisheries policy aims at exploiting fishery resources in a sustainable manner in order to increase availability of animal proteins on local markets (food security) and create employment for local populations.

#### **3.4.2 Institutional framework**

Fisheries management and development is vested with the Fisheries Department placed under the Ministry of Natural Resources and Tourism with the head office located in Dar Es Saalam. The Director of fisheries is responsible for formulating fisheries policy and for implementing fisheries regulations in the regions through Regional Fisheries Officers, supported by District Fisheries Officers and extension service staff who also carry out enforcement of fisheries regulations and collection of fisheries data.

Fisheries research falls within the purview of the Tanzania Fisheries Research Institute. A regional office was established in Kigoma to conduct and coordinate research activities on Lake Tanganyika. Subsequently, a sub-station was created in Kigili to cover the southern shore of Lake Tanganyika.

#### **3.4.3 Major constraints**

Major constraints affecting the efficiency of DOF include -

- Inadequate budgetary allocation
- Lack of motivation of extension and enforcement officers (low pay)
- Inadequate funding for fisheries research (complete dependence on external funding)
- Inadequate human and material means to carry out monitoring, control and surveillance of fishing activities on Lake Tanganyika

Major fisheries management issues to be addressed in Tanzania territorial waters of Lake Tanganyika are as follows -

- Insecurity on Lake Tanganyika affects fish production and enforcement of fisheries regulations
- Inadequate information on the state of Lake Tanganyika fishery resources prevent the elaboration of sound management measures
- Lack of infrastructure and efficient communication system along the shoreline of Lake Tanganyika limits the development of the Lake fisheries

### **3.5 Common deficiencies in institutional frameworks**

Review of institutional frameworks above underscores the limited capacity of fisheries departments in each of the four

States bordering Lake Tanganyika, indicating that nowadays no fisheries departments is in a position to effectively carry out the tasks, perform the duties and exercise the powers vested in them by national legislation. Principal deficiencies common to institutional frameworks in all the four lacustrine States can be summarized as follows -

- a) Inadequate budgetary allocation to fisheries sector by central governments
- b) Inadequate funding for research
- c) Lack of human and material resources
- d) Poor to inexistent enforcement of fisheries regulations
- e) Insufficient linkage between central administration and field agents at local level

a) Funds allocated to the fishery sector are notoriously inadequate in the four lacustrine States mirroring the low priority given to the development of inland fisheries by central governments in each of the 4 States under consideration<sup>32</sup>.

b) Principal consequences of inadequate funding for fisheries research are two-folds: (i) absence or lack of reliable scientific data (which precludes fisheries managers from devising sound conservation and management measures and beyond compromises the sustainable exploitation of LakeTanganyika fisheries resources); and (ii) excessive to complete dependence of fisheries research on external funding (fisheries research in Lake Tanganyika depends exclusively on research activities conducted in the framework of LTR and LTBP.

c) Lack of human resources, which is a direct effect of inadequate funding, affects the proper carrying out of fisheries administration's main functions, notably, extension services, enforcement of fisheries regulations and collection of scientific and socio-economic data.

d) Poor to inexistent enforcement of fisheries regulations is the result of a combination of factors: (i) insufficient staffing; (ii) lack of means of transportation to control fishing operations both on the lake and on shore; and (iii) inadequacy of fisheries regulations and sanctions. Difficulty to enforce fishing regulations is further compounded by unstable political climate and insecurity in Lake Tanganyika region.

e) Considerable distances (combined with lack of road infrastructure and inefficient communication systems) separating central fisheries administrations from field agents working on Lake Tanganyika hinder fisheries administrations' efficacy in all but one of the four lacustrine States<sup>33</sup>.

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<sup>32</sup> Note that inland fisheries is a sector of the economy that has been traditionally neglected throughout the African continent.

<sup>33</sup> In Burundi, Bujumbura, the capital, lies on the shore of Lake Tanganyika. Fisheries management on the Lake is under the direct supervision of the central fisheries administration.



## 4. REVIEW OF NATIONAL FISHERIES LEGISLATION

Review of national fisheries legislation<sup>34</sup> is based principally on the FAO compendium of fisheries legislation (1989) and reports prepared by Tavares (1985), Bonucci (1992), Cacaud (1996) and Kuemlangan (1997). This section reviews national fisheries legislation of each of the four lacustrine states and identifies their common deficiencies.

### 4.1 Zambia

#### 4.1.1 Existing legislation

The principal legal instrument on fisheries is the **Fisheries Act, No. 21 of 1974**. It is primarily directed at developing and controlling commercial fishing, which is defined as "fishing which is undertaken in a commercial fishing area as a regular or occasional occupation for the supply of fish to any market or industry" (section 2). 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 whereas the latter is specifically conceived for commercial fishing. Special fishing licenses granted by the Minister are required, in any prescribed area, to: (i) conduct scientific research, including collecting of aquarium fish; (ii) collect live fish for stocking specified waters; and (iii) supply food in cases of emergency if no other adequate food supply is available<sup>35</sup>[section 7(1)]. The Minister may authorize the use of any means or fishing methods, otherwise prohibited under the Act, by the holder of a special fishing license to carry out fishing within a prescribed area. The Act enables the Minister to regulate commercial fishing in commercial areas and specifies that he or she may, notably, prescribe: (i) the categories of fishing licenses that must be held by any person fishing therein; (ii) closed seasons; (iii) fishing methods; and (iv) information to be recorded and reported by any license holder [section 8 (2)]. In addition, the Minister may, in his or her discretion, appoint a Fishing Development Committee in respect of any commercial fishing area in order to improve fisheries management therein (section 12). The Act also provides for the registration of fishermen<sup>36</sup> and for that of every boat used by a fisherman for the purpose of commercial fishing (sections 9 and 10 respectively).

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<sup>34</sup> For the purpose of this review, legislation not only includes acts adopted by legislative bodies but also orders, ordinances and decrees adopted by the executive branch as well as any relevant acts, orders, ordinances or decrees in their draft form.

<sup>35</sup> The effect of this last provision is to allow, under certain circumstances and subject to certain conditions, commercial fishing operations within prescribed areas. Note that the phrase "in cases of emergency" is not defined and therefore it is left to the discretion of the Minister to decide whether or not such provision should apply.

<sup>36</sup> Registration of any person as a fisherman is optional. Note that the act contains a definition of "fisherman". Is a fisherman "any person who as a regular or occasional occupation, undertakes fishing for the supply of fish to any market or industry" (section 2).

As far as control of fishing operations is concerned, the Act prohibits the use of any poison, poisonous plants, injurious substances, explosives or electrical fishing devices (section 3)<sup>37</sup> and forbids the direct or indirect introduction of non-indigenous species of fish within Zambian waters without having first obtained, in writing, the permission to do so from the Director of Fisheries [section 5 (1) (a)]. Import of live fish within the Republic of Zambia is subject to a similar procedure [section 5 (1) (b)]. Moreover, the Minister is authorized to prohibit or restrict any method of fishing that would prove unduly destructive (section 4).

Lastly, it should be noted that in 1994, as penalties provided in the Act and other legislation were out-dated and therefore no longer acted as a deterrent, the Fees and Fines Act was adopted in order to reassess periodically the level of fees and fines of all legislation by applying a multiplier, namely "the fee unit", which is indexed to the rate of inflation.

The **Commercial Fishing Areas (Declaration) Order (Statutory Instrument No. 107 of 1976)** declares Lake Tanganyika as a commercial fishing area<sup>38</sup>. The **Fisheries Regulations of 1986** deal with two major issues, namely, licensing and control of fishing operations in commercial fishing areas. As regards the former, the Fisheries Regulations of 1986 provide for the application, issuance<sup>39</sup>, duration, cancellation and transfer of fishing licenses. They also establish a register of fishing licenses to be kept by the Director of Fisheries. As regards the latter, the Fisheries Regulations of 1986 prohibit throughout the Lake Tanganyika Commercial Fishing Area the use of monofilament net of a mesh size less than 120mm and in general nets of a mesh size less than 10mm (Regulation 4 of Second Schedule). In addition, fishing by means of *kutumpula*<sup>40</sup> is prohibited within any commercial fishing areas. Lastly, the Fisheries Regulations of 1986 forbid the use of any pesticides as a means of curing, preserving, processing or storing fish in any commercial fishing area (section 18).

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).

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<sup>37</sup> Note that the making or having in his or her possession of any poison or injurious substance or the growing or having in his or her possession of poisonous plants is also prohibited and similarly sanctioned under the Act.

<sup>38</sup> Section 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."

<sup>39</sup> Section 10 specifies that the Director of fisheries shall not issue a fishing license to any person under the age of twenty-one. By setting a legal minimum age for any person to apply for a commercial fishing license, this provision modifies the definition of "fisherman" provided for in section 2 of the Fisheries Act of 1974 (see note 36).

<sup>40</sup> "Kutumpula" is defined as "any fishing method whereby fish are driven into a stationary gill net or monofilament net" (section 2).

Both artisanal and industrial fishing boats fall within the purview of this definition, whereas fishing boats used for subsistence fishing do not and thus are not required to be registered.

The **Fisheries (Fishing License Fees) Regulations (Statutory Instrument No. 25 of 1986)** set out fees payable in respect of both special fishing licenses issued for the purpose of fishing in a prescribed area (First Schedule) and fishing licenses issued for the purpose of fishing in a commercial fishing area (Second Schedule). As an incentive to develop the fisheries industry, the regulations contain a provision empowering the Minister to remit or reduce by such amount as he or she thinks fit, any of the fees required to be paid by any person obtaining a fishing license for the first time.

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 a special fishing license issued by the Minister, whereas fishing by means of rod and line requires an angling license issued by the Director of Fisheries. The Order also subjects any person properly licensed to collect aquarium fish in prescribed areas to keep records of the catch and submit monthly reports of such records to the Director of Fisheries.

#### **4.1.2 Draft legislation<sup>41</sup>**

In 1994, the Department of Fisheries published a study of the fisheries sector<sup>42</sup>, in which the inadequacy of the fisheries legislation was stressed as being one of the major constraints for the effective management of fisheries in Zambia. It thus recommended that the Fisheries Act of 1974 be revised. Pursuant to this recommendation, a formal request for assistance in the drafting of a new basic fisheries legislation was filed with the FAO Legal Office. The request was approved by FAO and a Technical Cooperation Programme<sup>43</sup> was put together in 1997.

The draft fisheries bill (hereinafter "the draft bill") prepared by FAO is based on the preliminary draft elaborated by the Department of Fisheries. Three major changes have been introduced - (i) remodeling of DOF; (ii) incorporation of a fisheries management scheme; and (iii) extension of the scope of the Act to aquaculture. Remodeling of DOF has been analyzed above in section 3.1.2 on institutional framework and proposed changes and thus is not further discussed in this section.

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<sup>41</sup> The analysis provided in this section is based on the 1997 draft fisheries law contained in the FAO report (Kuemlangan 1997). Since then a new draft has been drawn out incorporating minor modifications.

<sup>42</sup> Agricultural Sector Investment Programme, Fisheries Development Sub-Committee, Ministry of Agriculture, Food and Fisheries (August 1994).

<sup>43</sup> TCP/ZAM/6613.

## Fisheries management

Central to the draft bill is part III on fisheries management. It vests the responsibility of managing, developing and conserving fisheries resources with the Minister. In order to carry out his or her duties the Minister is empowered, *inter alia*, to: (i) prescribe methods of fishing, closed seasons and the type of information to be kept by fishers; (ii) limit the amount of fish that can be taken; and (iii) restrict the number of fishing licenses that can be issued. In addition, the Minister may prohibit or restrict the use of any method of fishing that is likely to prove destructive. Provision is also made for the Minister to delegate, for a specified period and subject to such conditions as he or she may deem appropriate, any of his or her powers under this bill to the Commissioner or, in consultation with the Commissioner, to a Fishery Management Board or any person or groups of persons. The draft bill lays out a set of general principles of management intended to provide guidance for the Minister or the Commissioner, as the case may be, in the exercise of the powers conferred upon them under the draft bill. Also, where fulfilling their obligations under the draft bill, the Minister or the Commissioner shall have due regard to - (i) the sustainable utilization of aquatic ecosystems; (ii) the need to apply the precautionary approach for the conservation of fisheries resources; (iii) the utilization of fisheries resources in order to achieve economic growth, human resource development, creation of employment; and (iv) the need to achieve to the extent practicable a broad and accountable participation in the management and conservation of fisheries resources.

Whereas the Fisheries Act 1974 provided for the establishment of two categories of fishery management areas in relation to the type of fishing operations to be authorized therein, the draft bill provides for only one type of fishery management area regardless of the kind of fishing operations taking place therein. In this regard, the Minister is authorized to declare, by notice in the Gazette, any waters or part thereof or any geographical area to be a fishery management area<sup>44</sup> for the management of such species of fish or fisheries as specified in the notice. As indicated above (section 3.1.2), the Minister may establish a Fishery Management Board in respect of each fishery management area. The Commissioner is required to prepare a fishery management plan in respect of each fishery management area, in consultation with the Fishery Management Board where one has been established. The draft bill, however, fails to provide for any consultation mechanism where no Fishery Management Board has been established in respect of a fishery management area. Section 12 (3) of the draft bill sets out the required elements to be included in each fishery management plan -

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<sup>44</sup> Note that the wording of the draft bill refers to "any fishery waters" or "a group or class of fishery waters", but fails to provide a definition of "fishery waters".

- identify each fishery and its characteristics and assess its level of exploitation;
- determine the objectives to be achieved in each fishery management area and specify the conservation and management strategies to be used to attain these objectives (emphasis is placed on the use of community-based or other forms of decentralized mechanisms of management);
- set fish quotas or licenses quotas if necessary;
- identify any adverse environmental effects that may be caused by fishing operations in any fishery management area and formulate measures to mitigate these effects;
- specify the types of data that must be recorded and reported; and
- promote international cooperation where necessary (management of shared resources).

A special procedure has been designed to ensure the proper conservation of endemic species of fish. Where any endemic species of fish occur in a fishery management area, the Commissioner is required to seek and take into account the advice of the government authority responsible for general conservation and biodiversity matters.

### Licensing

The draft bill maintains the individual fishing license system in existence<sup>45</sup>. The Minister may, at any time, cancel or suspend any fishing license if so recommended in a fishery management plan.

### Prohibited methods of fishing and other measures of control

Use of any explosive, poison or other noxious substances is strictly prohibited<sup>46</sup>, whereas the use of electrical devices is subject to the written approval of the Minister. Interference of any kind with any fishing operation is unlawful. In order to curb frequent stealing from traps or other fishing gear, the draft bill specifies that fish caught in any fishing gear is deemed to be private property. Therefore, removal of fish from a trap or any other fishing gear without the consent of the owner shall be considered as stealing and be punished accordingly. Introduction of non-native species of fish into Zambian waters is subject to the written approval of the Minister. Are also subject to a like procedure: (i) import of any live fish or any aquatic flora into Zambia; (ii) stocking of any water; and (iii) transport of live fish from one fishery management area to another.

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<sup>45</sup> Note that wording of section 30 on cancellation and suspension of licenses suggests that "boats and fishing equipment" are required to be licensed as well. Whether this implies that the owner of a boat and a net is required to hold three distinct licenses to be able to fish is not clear (though unlikely). In any case, modification of the language of this section is certainly advisable.

<sup>46</sup> Any explosive, poison or other noxious substance found in possession of a person or in a boat on the water is presumptive evidence that it is intended to be used for the killing, stunning, disabling or catching of fish.

## Enforcement

The draft bill includes a provision allowing any authorized officer, in accordance with an agreement for cooperation in enforcement, to pursue into another country (party to the aforesaid agreement), any person, fishing boat or vehicle, that he or she has reasonable ground to believe has committed or was involved in the commission of an offense under this bill. Though interesting, this provision should not be included as such in the fisheries legislation as there is no such agreement in force in the region<sup>47</sup> at the moment and no indication that such an agreement will ever be negotiated. Since the important point is to promote cooperation between neighboring States in enforcing fisheries legislation, it is recommended to delete section 35 (1) of the draft bill and instead incorporate language promoting such form of cooperation.

## Regulation making power

Power to make regulations is vested with the Minister and includes: prescribing measures for the protection of particular species of fish or fish habitat and establishing and regulating community-based or other decentralized mechanisms of fisheries management, including delegation of powers.

## Fisheries Development Fund

The draft bill establishes a Fisheries Development Fund for the purposes of facilitating the implementation of a community-based approach to fisheries management and diminishing dependence of fisheries management on Central Government financing.

## **4.2 Burundi**

### **4.2.1 Existing legislation**

The principal law on fisheries is the **1937 Decree on Hunting and Fishing**<sup>48</sup>. This decree applied throughout the territories then administered by Belgium (Ruanda-Urundi and the Belgian Congo) and as will be seen below is the law that still regulates fishing in the Democratic Republic of Congo. The 1937 Decree is essentially a framework law providing for specific issues to be dealt with through the making of regulations. It enables competent authorities (today the Minister or Director of Fisheries) to, *inter alia*: prescribe closed seasons (article 61), establish fish reserves (article 62), prohibit or restrict the fishing and marketing of all or

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<sup>47</sup> Incorporation of such a provision in the bill would be warranted to translate Zambian international engagements into national legislation. In this case, however, Zambia has entered into no such international agreement.

<sup>48</sup> Decret du 21 avril 1937 portant reglementation de la chasse et de la peche, amende par le decret du 17 janvier 1957, l'ordonnance No. 52/273 du 24 juin 1958, et le decret du 27 juin 1960.

certain species of fish by notably issuing fishing licenses and trade permits (article 63), prescribe the apportionment of taxes (article 63), prescribe net minimum mesh size (article 65), and regulate the introduction of non-native species of fish (article 67). Fishing in breeding grounds is strictly prohibited as well as the destruction of juveniles. 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 the owner's consent. It shall be emphasized that the decree formally recognizes the existence of customary fishing rights<sup>49</sup>. In this regard, it specifies that local people shall exercise their customary rights in compliance with customary law and to the extent that exercise of such rights does not interfere with the freedom of navigation or otherwise endanger public health (article 59).

The **1932 Decree on Exclusive Fishing Rights**<sup>50</sup> enables competent authorities to grant exclusive fishing rights in a designated area<sup>51</sup> to any person. The decree outlines the general terms and conditions governing the agreement to be entered into and spells out the rights and obligations of each contracting party. Where the existence of traditional fishing rights has been clearly established in the area to be designated, the grant of exclusive fishing rights may be denied or subject to certain conditions designed to ensure the protection of such rights.

Regulations made under the 1937 decree include a **1937 Ordinance**<sup>52</sup>, which bans fishing by explosive, electrical devices and toxic substances except for research purposes provided that adequate authorization is granted by the proper authority.

A **1947 Ordinance**<sup>53</sup> consisting of a single article prohibits any person to introduce non-native species of fish, including their eggs, in the waters located in the territories under Belgian administration, unless authorized to do so by the Permanent Secretary.

The **1961 ministerial regulation on Fishing on Lake Tanganyika**, modelled after the 1958 regulation on net fishing on Lake Tanganyika<sup>54</sup>, identifies and regulates three categories of fishing operations: (i) industrial fishing; (ii) artisanal fishing; and (iii) individual fishing. Each category is defined in relation to the type of fishing unit that is used to carry out fishing. A fishing unit consists of two components - a boat or craft on the one hand and some type of fishing gear on the other. Qualify as -

<sup>49</sup> Note that the decree does not provide for the identification of customary fishing rights.

<sup>50</sup> Decret du 12 juillet 1932 portant réglementation des concessions de pêche. "Concession de pêche" is a concept of French Law, which confers an exclusive fishing right upon a designated area to any person through the negotiation and conclusion of an agreement between the State and the beneficiary of such right.

<sup>51</sup> The decree stipulates that exclusive fishing rights can only be granted in lakes (article 1) and that a designated area cannot exceed 1.200 km<sup>2</sup> and 60 km in length (article 2).

<sup>52</sup> Ordonnance No. 103/Agri du 4 octobre 1937.

<sup>53</sup> Ordonnance No. 325/Agri du 16 octobre 1947 relative à l'introduction d'espèces de poissons étrangères.

<sup>54</sup> See section 4.3.1 below.

- an industrial fishing unit - one or several boats, engine powered or not, using either a seine net, one or several set nets whose total length or total combined length does not exceed 5,000 m, or lift nets;
- an artisanal fishing unit - one or several boats, engine powered or not, using either lift nets or set nets whose total combined length is more than 1,000 m but less than 2,500 m;
- an individual fishing unit: a pirogue or dugout using traditional fishing gear including a beach seine, set nets whose total combined length does not exceed 1,000 m or a *lusenga* (traditional scoop net).

An authorization to fish is required for all types of fishing operations and is subject to the payment of a prescribed fee, except for individual fishing permits that are free of charge<sup>55</sup>. Conditions to a fishing permit include the keeping of catch records and the prohibition of discarding any fish or part thereof. Industrial fishing permits are issued by the Minister on the advice of a consultative commission. No more than 6 industrial fishing permits can be issued yearly on Lake Tanganyika. Fishing in the lake using dragnets or nets of a mesh size less than 4mm is prohibited. In addition, industrial fishing is prohibited within an area of 5 km from the shoreline.

A **1982 Ordinance**<sup>56</sup> created a 5 FBU tax per kilogram of fish sold in Burundi and on the markets located alongside Lake Tanganyika. To all accounts, tax pressure on fishing has reached such a high level that most industrial fishers have been discouraged and have preferred to invest in other sectors of the economy.

#### 4.2.2 Draft legislation

The draft fisheries legislation prepared with the assistance of FAO in 1992 is to be reintroduced and submitted to Parliament in the course of 1999. It consists of a set of five separate texts, namely, a Fisheries and Aquaculture Bill, a Decree on Territorial Use Rights, Fisheries Regulations (Ordinance), an Ordinance on Marking of Fishing Boats and an Ordinance establishing a Fisheries and Aquaculture Development Fund.

##### a) Fisheries and Aquaculture Bill (the bill)<sup>57</sup>

<sup>55</sup> The Ordinance No. 710/138 of 1982 reassessed fees payable for both industrial and artisanal fishing permits, 400,000 FBU and 15,000 FBU respectively, and imposed a 12,500 FBU fee on customary fishing permits. Note that *individual* fishing permits have been transformed into *customary* fishing permits.

<sup>56</sup> Ordonnance No. 710/163 du 28 juillet 1982 portant creation de la taxe sur le poisson vendu.

<sup>57</sup> A few modifications have been introduced in the draft to be presented to Parliament. They are, for the most part, cosmetic in nature, except for the commitment to promote international cooperation that has disappeared in the revised version (deletion of articles 12 and 72 of the 1992 FAO draft respectively on international cooperation and shared water bodies). As far as the form of the Act is concerned, chapter 2 of the 1992 FAO draft establishing a Fisheries and Aquaculture Development Fund has been deleted from the Act to be incorporated in an ordinance supplementing the Act.



The bill is a comprehensive piece of legislation dealing with fisheries management planning, licensing, conservation measures, aquaculture, enforcement and offenses and penalties.

The objectives of the bill, which are stated in the preamble<sup>58</sup>, are three folds - (i) preserve and develop fisheries resources; (ii) ensure optimum utilization of fishery resources; and (iii) encourage the development of professional fishing.

The preamble emphasizes the uniqueness of Lake Tanganyika ecosystem and stresses the need to ensure its protection.

In the preliminary part, the bill distinguishes four categories of fishing operations that are defined in relation to their purpose - subsistence or sport fishing, professional fishing, research fishing, fishing for aquarium species of fish (article 3).

#### Fisheries management

The Minister is required to prepare a fisheries management plan that should be reviewed periodically. Such plan is designed to - (i) identify and assess fisheries resources throughout the country; (ii) define the types of data and information to be collected together with the mechanism to collect them; (iii) devise short, medium and long term objectives; and (iv) formulate conservation and management measures to achieve specified objectives (article 4). It is important to note that the mechanism of consultation with fishers and other interested groups that was provided in the 1992 FAO draft for the preparation of the fisheries management plan, has been removed<sup>59</sup>.

The Minister is also required to periodically assess the number of professional fishers, fishing companies, fishing boats and fishing gears. The bill, however, does not explicitly provide for the establishment of any register (article 5).

#### Authorization to fish

Professional fishing is subject to an individual fishing license. Access to Burundi fisheries is restricted to Burundi citizens and non-citizens residing in Burundi. However, foreign nationals may access fishing grounds lying in Burundi in virtue of a fishing agreement concluded between Burundi and their country of nationality or in virtue of a special authorization issued by the Minister (article 9).

A fishing license may be refused, cancelled or suspended at any time by the competent authority in order to ensure the proper management of fisheries resources (article 14). A license holder is required to provide the administration with

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<sup>58</sup> The preamble is an integral part of the Act.

<sup>59</sup> See article 7 (3) of the 1992 FAO draft bill.

all necessary information relating to his or her fishing activities (article 6).

Subsistence or sport fishing can be exercised freely, whereas research fishing is subject to a written authorization issued by the Minister (articles 16 and 18 respectively).

The Minister may, through the conclusion of an agreement, grant exclusive fishing rights<sup>60</sup> in respect of a designated area to any private person<sup>61</sup> such as fishers associations. Duration of such agreements cannot exceed a 30-year period (article 20). In addition, the bill spells out the conditions that would warrant the modification or revocation of such agreements (article 24).

#### Regulation making power

The bill enables the Minister to make regulations on a broad range of issues such as - prescribe closed seasons, establish prohibited fishing zones, determine fish quotas in respect of certain species of fish and determine fishers quotas in respect of any water body (article 26). Interestingly, the bill provides that in case of emergency<sup>62</sup> local authorities are entitled to take all necessary measures, provided that they immediately inform the Minister on the nature of such measures (article 27).

#### Prohibited methods of fishing

Fishing by means of explosives, noxious substances or electrical devices is strictly prohibited (article 28) as is the fishing method consisting of stirring water by any means in order to frighten fish into nets or other fishing devices (article 29).

#### Conservation measures

Destruction of fish larvae and juveniles is strictly prohibited. Also, in order to ensure their protection, the Minister is required to identify and demarcate spawning grounds in consultation with local authorities (article 30).

The general regime governing the importation of non-native species of fish or their eggs into Burundi or the introduction of non-native species of fish or their eggs into any water of Burundi where they do not naturally occur provides for an authorization of the Minister. However, introduction of non-native species of aquatic organisms<sup>63</sup> into

<sup>60</sup> It seems that reference to the concept of "exclusive fishing rights" would be more accurate than that of "territorial use rights" (droits d'usage territoriaux) used in the bill.

<sup>61</sup> Private person includes natural persons, associations and corporate entities.

<sup>62</sup> Though the phrase "in case of emergency" is not defined, it is clear that the intent of the legislator is to provide local authorities with adequate power in case of the occurrence of an unpredictable event that threatens fisheries and calls for immediate action.

<sup>63</sup> Note that the legislator uses the terms "aquatic organisms" instead of "species of fish" in article 31 paragraph 2. Though not explicitly defined in the bill, the terms "aquatic organisms" are likely to include both aquatic fauna and flora and hence imply that both the introductions of non-native species of fish and non-native species of plants in the waters of Lake Tanganyika are strictly prohibited.

Lake Tanganyika and the waters connected therewith is strictly forbidden (article 31).

#### Protection and conservation of aquatic ecosystem

In order to ensure the taking into account of fisheries and aquaculture interests in the decision-making process, the bill provides for the consultation of the Minister responsible for fisheries with regard to any action that may adversely impact fisheries and related ecosystems, e.g. clearing of river banks or lake shores, damming of rivers (articles 35 and 36). It also reiterates the need to protect Lake Tanganyika ecosystem (article 34).

#### Sanitary measures and quality standards

The bill makes provision for the devising of sanitary measures for the handling, packaging, transport and marketing of fish and aquaculture products and for the setting of quality standards applicable to these products (articles 37, 38 and 39).

#### Enforcement

Typically, the bill sets forth the categories of agents who are entitled to enforce fisheries regulations and defines the powers that can be exercised by these designated agents in the carrying out of their duties. Curiously, only agents belonging to the Ministry of Agriculture and Livestock are authorized to enforce fisheries regulations under the bill, departing from the provisions of article 54 of the 1992 FAO draft which designated a wider range of agents. Needless to say that, having regard to the inadequate staffing of the Department of Fisheries as reported above, such modification may not be advisable as it may compromise the efficacy of the enforcement scheme.

#### Offenses and penalties

The 1992 FAO draft bill distinguished between two broad categories of offenses, serious offenses on the one hand and other offenses on the other. In addition, it singled out two specific offenses, namely, fishing without authorization and obstruction of an enforcement agent, because of their gravity. By deleting one category of offenses, other offenses, and by setting similar fines and terms of imprisonment regardless of the nature of the offenses, legislators have modified the balance of the offenses and penalties scheme to a point that it is now incoherent. Also, it would be advisable to revise the relevant articles of the bill so as to restore the coherence of such scheme.

As an incentive for enforcement agents to properly carry out their duties, the bill introduces an award system (article 52). Lastly, the bill provides for the compounding of offenses (article 56).

- a) Decree regulating territorial use rights

The decree describes the application procedure and enumerates the documents to be furnished with the application form. It specifies that exclusive fishing rights are granted for a period ranging from 5 to 10 years<sup>64</sup>. It further outlines the rules governing the agreement entered into by the administration and the beneficiary of an exclusive fishing right and contains a specimen of such an agreement annexed to it.

Contrary to the 1932 decree on exclusive fishing rights, the proposed decree (as well as the bill) does not provide for the protection of customary fishing rights, reflecting either the reluctance of the administration to formally recognize such rights or the fact that these rights no longer exist or are eroding rapidly. Moreover, neither the bill nor the decree sets out any limits as to the extent of the designated area. Finally, exclusive fishing rights may be granted in any water body including lakes and rivers, whereas grant of such rights, under the 1932 decree, was restricted to lakes.

b) Fisheries regulations (Ordinance)

The fisheries regulations deal with three major issues - (i) conservation measures; (ii) fishing licenses; and (iii) exploitation of aquarium fish.

Conservation measures

The fisheries regulations set out the various types of nets and other fishing gear that can be used lawfully throughout Burundi. They are as follows<sup>65</sup> -

- gill net;
- lift net;
- seine net;
- hook and line;
- lusenga (traditional scoop net) and
- baskets and other similar traps.

They specify that mesh size of lift nets, seine nets and lusenga shall not be less than 6mm throughout the country and that mesh size of gill nets shall not be less than 50mm in Lake Tanganyika and 60mm in any other water body.

A fishing unit is not authorized to use a gill net exceeding 1,000m in length or a combination of several gill nets whose total length exceeds 1,000m<sup>66</sup>.

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<sup>64</sup> This provision is conflicting with that of article 20 of the bill, which specifies that exclusive fishing rights may be granted for duration not exceeding 30 years. It is important to note that neither the bill nor the decree makes provision for the renewal of the agreement conferring such rights.

<sup>65</sup> Note that two items, namely, trawl net and long line, have been deleted from the list of authorized fishing gear contained in the 1992 FAO draft fisheries regulations.

<sup>66</sup> It is not clear whether the intent of the legislators was to restrict the total length of one single gill net and/or the total length of the combination of several gill nets used by one fishing unit. It might be wise to modify the wording of article 7 in order to clarify the scope of its provisions.

It is prohibited to set nets within 50 meters from the shoreline of any water body and use any fishing gear in a manner that would obstruct more than 2/3 of the width of any water body.

No nets or other fishing gear shall be set, operated or removed between 7 p.m. and 5 a.m., except in the waters of Lake Tanganyika. It is also specified that fishing is prohibited during full moon periods.

Industrial and artisanal fishing operations are banned within a 5 km-wide zone measured from the shoreline (of Lake Tanganyika<sup>67</sup>) and within a radius of 15 km around Bujumbura.

Underwater fishing involving the use of a spear gun is prohibited without an authorization from the Fisheries Department.

As an attempt to control fishing effort in Burundi, the importation, purchase or construction of fishing boats to be used for artisanal or industrial fishing purposes is subject to the authorization of the Fisheries Department. Likewise, importation and sale of nets, gear or other fishing implements that do not comply with the fisheries regulations in force are prohibited, unless authorized by the Fisheries Department.

### Fishing licenses

By stating that subsistence and sport fishing are subject to an authorization regime, provisions of article 2 of the fisheries regulations conflict directly with that of article 16 of the bill, which provide for a regime of open access for these two types of activities. Likewise, provisions of article 15, which enumerate the various categories of professional fishing including sport fishing, are not consistent with the provisions of article 3 of the bill. Indeed, sport fishing cannot be a form of professional fishing that is, fishing for the purposes of generating profits and selling all or part of the catch<sup>68</sup>, since it is defined as fishing that do not involve the sale of the catch<sup>69</sup>. Consequently, the wording of these articles needs to be reconciled so as to restore the global coherence of the fisheries legislation. The way this should be done is left to the discretion of the administration. One may however indicate that in most instances subsistence fishing is exercised freely, whereas sport fishing may be subject to some form of authorization. Sport fishing, however, should not be regarded as a professional fishing activity but as a recreational one and thus be regulated as such. In this regard, it would certainly be advisable to improve the definitions provided in the bill, notably, with regard to sport and subsistence fishing<sup>70</sup>.

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<sup>67</sup> It is not specified whether this provision is of general application or specifically applies to Lake Tanganyika.

<sup>68</sup> Article 3 (b) of the bill.

<sup>69</sup> Article 3(a) of the bill.

<sup>70</sup> Note that article 3 of the bill defines subsistence and sport fishing similarly as “fishing that do not involve the sale of the catch.”

Article 15 identifies 5 categories of industrial fishing licenses -

- (i) industrial fishing;
- (ii) advanced artisanal fishing<sup>71</sup>;
- (iii) artisanal fishing;
- (iv) traditional fishing;
- (v) sport fishing<sup>72</sup>.

Industrial fishing licenses<sup>73</sup> are granted to any fishing units comprising a fishing boat, engine powered or not, 10 m or more in length and using a seine net<sup>74</sup>.

Advanced artisanal fishing licenses are granted to any fishing units made of a fishing boat, engine powered or not, less than 10m in length and using a seine or a lift net<sup>75</sup>.

Artisanal fishing licenses are granted to any fishing units consisting of a fishing boat, engine powered or not, and using a lift net.

Traditional fishing licenses are granted to any fishing units composed of a fishing boat, engine powered or not, and using one or several gill nets, lines, *lusenga* or traps.

Fishing licenses are not transferable, except for industrial fishing licenses whose transfer is subject to the prior approval of the Fisheries Department. The holder of an industrial fishing license is required to keep a logbook in which all catch information shall be recorded and to furnish a copy of it to the Fisheries Department at the end of each fishing campaign.

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<sup>71</sup> Literal translation from “*peche artisanale avancee*”.

<sup>72</sup> There is no provision regulating sport fishing licenses in the fisheries regulations.

<sup>73</sup> Article 16 of the proposed fisheries regulations has been modified and now reads “artisanal and industrial fishing licenses are etc.” Inclusion of the term “artisanal” seems to be a typographical error, as the rest of the chapter remains unchanged.

<sup>74</sup> Note that trawl net has been removed from the definition proposed by the 1992 FAO draft.

<sup>75</sup> As for the definition of industrial fishing unit, trawl net has also been removed from the definition proposed by the 1992 FAO draft.

## Exploitation of aquarium fish

The farming, exploitation or exportation of aquarium fish<sup>76</sup> is subject to an authorization regime. The fisheries regulations describe the application procedure, specify the documents to be furnished with the application form and spell out the conditions on the basis of which an authorization may be denied, suspended or revoked. In this regard, the Fisheries Department may refuse to grant an authorization if target stocks are already fully exploited, suspend an authorization if target species are being overexploited, or revoke an authorization if the beneficiary of the authorization does not comply with international standards set by the CITES Convention<sup>77</sup>. The Minister is empowered to prohibit, temporarily or permanently, the catching of all or certain species of aquarium fish.

Conditions attached to the authorization include the keeping of catch records and the obligation to notify immediately any outbreak of fish diseases.

### d) Ordinance regulating the marking of fishing boats

All fishing units involved in industrial<sup>78</sup>, artisanal or traditional fishing are required to bear markings. However, where a fishing unit consists of several boats, only the main boat directly involved in the fishing operation must be marked.

### e) Ordinance establishing a Fisheries and Aquaculture Development Fund

This ordinance establishes a Fisheries and Aquaculture Development Fund for the general purpose of financing all fisheries and aquaculture activities. It is specified that funding of any operations aiming at implementing management and conservation measures or in support of extension programs shall be given high priority. The Fund is administered by a management committee chaired by the Minister responsible for fisheries and aquaculture and comprises other members such as the Director of Fisheries (secretary), a representative of the Ministry responsible for transport and a representative of the Ministry responsible for finance.

## **4.3 Democratic Republic of Congo**

### **4.3.1 Existing 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 ordinance No. 52/273 of 24 June 1958 and a decree of 27 June

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<sup>76</sup> Aquarium fish is defined as "any species of fish to which some aesthetic or biological value can be attributed and which is not used for human consumption" (article 3).

<sup>77</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora signed in Washington on 3 March 1973. Burundi became a party to CITES on 8 August 1988.

<sup>78</sup> The marking of industrial fishing units shall comply with the regulations governing merchant shipping.

1960) which is also, as mentioned above, the principal fisheries law in Burundi<sup>79</sup>.

The **1932 Decree on Exclusive Fishing Rights** is also applicable to DRC.<sup>80</sup>

The **Ordinance No. 432/Agri. of 26 December 1947** (as amended in 1952 and 1954) provides for the status and powers of fish controllers.<sup>81</sup>

A **regulation of 1981** prohibits fishing by means of electrical devices, explosives or toxic substances throughout the then Zairian territory and provides for the seizure by the authorities of any such articles and any catch caught by such means<sup>82</sup>.

A **1979 ordinance**<sup>83</sup> (as amended by a regulation of 1983<sup>84</sup>) provides for the rate of fishing permits fees and determines the various issuing authorities. It sets out four categories of fishing permits -

- a) industrial fishing permits are issued by the State Commissioner in charge of environmental affairs to any person undertaking commercial fishing operations, involving the use of traditional or other fishing gear, whose annual production exceeds 300t;
- b) artisanal fishing permits are issued by regional Governors to any person fishing for the purpose of providing food for local consumption and using boats or pirogues that are not engine-powered;
- c) traditional fishing permits are issued by local Commissioners to any person fishing for the purpose of providing food for local consumption and using boats or pirogues that are not engine-powered<sup>85</sup>;
- d) sport fishing permits are issued by local Commissioners to any person fishing, with or without a boat, for recreational purposes, that is fishing with no intent to sell the catch or any part thereof.

An array of subsidiary regulations has been taken over the years at regional level. In the Shaba region, to which the southern part of Lake Tanganyika<sup>86</sup> belongs, the most important one is a **1958 regulation regulating net fishing on Lake**

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<sup>79</sup> For details, see section 4.2.1.

<sup>80</sup> For details, see section 4.2.1.

<sup>81</sup> Translation from "Garde-peches".

<sup>82</sup> Arrête departemental No. 002 du 9 janvier 1981 portant interdiction de la pêche par empoisonnement des eaux.

<sup>83</sup> 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.

<sup>84</sup> Arrête No. 0001/CCE/ADRE/83 du 26 janvier 1983 portant modification de certains taux des taxes et redevances prévues par l'ordonnance No. 79/244 du 16 octobre 1979 et perçues à l'initiative du département de l'environnement, conservation de la nature et tourisme.

<sup>85</sup> Note that the definitions of artisanal fishing and traditional fishing permits are identical, thus not warranting any distinction between these two categories of permits.

<sup>86</sup> Lake Tanganyika lies in both the Kivu and Shaba regions.



**Tanganyika**<sup>87</sup>. It identifies and regulates three categories of fishing operations - (i) industrial fishing; (ii) artisanal fishing; and (iii) individual fishing. Each category is based on the type of fishing unit that is used to carry out fishing, which in turn is defined in relation to the type of boat or craft used and fishing gear carried on board. Qualify as -

- an industrial fishing unit - one or several boats, engine powered or not, using a seine net, one or several set nets whose total length or total combined length is more than 2,500 m, or lift nets;
- an artisanal fishing unit - one or several boats, engine powered or not, using either a lift net or set nets whose total combined length is more than 1,000 m but less than 2,500 m;
- an individual fishing unit - a pirogue or dugout using traditional fishing gear including a beach seine, set nets whose total combined length is less than 1,000 m or a *lusenga* (traditional scoop net).

An authorization to fish is required for all types of fishing operations and is subject to the payment of a prescribed fee. Conditions to a fishing permit include the prohibition of discarding any fish or part thereof. Industrial fishing permits are issued by the Governor of the Province on the advice of a consultative commission. Fishing in the Lake using drag nets or nets of a mesh size less than 4mm is prohibited. The use of beach nets, however, remains lawful. Lastly, industrial fishing is prohibited within a 5 km-wide area measured from the shoreline.

The same year, a similar regulation was enacted in the Kivu Region in respect of the northern part of Lake Tanganyika<sup>88</sup>. A few modifications were introduced so as to adjust conservation measures to fisheries characteristics in the northern part of the lake. To this end, the definition of industrial fishing unit was slightly modified by extending the total length of set nets to 5,000 m. Likewise, the total length of set nets that can be used by an artisanal fishing unit in the northern area of Lake Tanganyika was extended to 4,500 m.

A **1959 regulation**<sup>89</sup> modifying the aforementioned 1958 regulation on Lake Tanganyika applicable to the Kivu Region limits to six the total number of industrial fishing permits that can be issued in respect of the northern portion of the lake (north of Lake Nyanza parallel).

Of the four lacustrine States, DRC appears to be the only one to have issued specific regulations dealing with the commercial exploitation and export of aquarium fish. The

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<sup>87</sup> Arrête No.552/208 du 7 novembre 1958 reglementant la peche au lac Tanganyika en territoire d'Albertville et de Baudoinville amende par l'arrete No. 552/188 du 22 decembre 1959.

<sup>88</sup> Arrête No. 552/270 du 17 decembre 1958 portant reglementation de la peche au filet dans le lac Tanganyika, tel qu'amende par l'arrete No. 5520/340 of 1959.

<sup>89</sup> Arrête No. 5520/340 du 31 decembre 1959.

instrument is a **1987 ministerial regulation**<sup>90</sup> providing that the exploitation of aquarium fish, defined as species of fish which do not form part of the human diet, may be undertaken only by persons having first obtained an authorization from the State Commissioner responsible for environmental affairs. Such authorizations are renewable annually and shall not authorize the exploitation of more than 75,000 specimens. Another authorization is required for the exportation of aquarium fish. The fee payable for an authorization to export aquarium fish varies in relation to the number of fish to be exported<sup>91</sup>. Lastly, the State Commissioner responsible for environmental affairs is empowered to suspend or prohibits both the exploitation and export of aquarium fish.

#### **4.3.2 Draft legislation**

In 1985, a draft law providing a general legal framework for both marine and inland fisheries was devised with the assistance of FAO<sup>92</sup>. Insofar as could be established by the consultant, this law is still in a draft form and has not yet been submitted to Parliament due to turmoil in DRC.

It is a comprehensive piece of legislation composed of 70 articles primarily directed at regulating inland fisheries.

#### Classification of fishing operations

Fishing operations are classified in three distinct categories defined in relation to their purposes - amateur fishing, commercial fishing and research fishing. Amateur fishing includes both recreational and sport fishing activities and is defined as fishing for the purpose of providing food for fishers' own consumption and their families. Commercial fishing means fishing for the purpose of generating profits and includes sale of most of the catch. Research fishing is defined as fishing for the purpose of studying fishery resources (article 4). It is specified that technical criteria might be devised to further distinguish between various categories of fishing operations (article 5).

#### Fisheries management

As indicated above<sup>93</sup>, a national fisheries committee is established at central level to advise the Fisheries Commissioner on all matters related to the management and development of fisheries (article 7) and regional fisheries committees are created at regional level to advise the Governor on all fisheries related matters (article 8).

One of the major functions of regional fisheries committees is to prepare fisheries management plans in respect of the region for which they have been established. Required

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<sup>90</sup> Arrête No. 0055/CCE/AFECN/87 du 18 août 1987 portant organisation de l'exploitation et de l'organisation de poissons d'aquarium.

<sup>91</sup> It provides for a tax of 7,50 zaires per specimen to be exported.

<sup>92</sup> GCP/INT/400/NOR

<sup>93</sup> See section 3.3.2.

elements of a fisheries management plan include - identify fisheries and assess the state of fish stocks; determine objectives to be achieved; and devise conservation and management measures to attain set objectives. The process governing the preparation of fisheries management plans is based on broad participation of fishing communities and other stakeholders and consultation with competent authorities in neighboring countries where shared fishery resources are involved (article 12).

The need to promote cooperation for the management of shared fishery resources through, notably, the negotiation and conclusion of regional or bilateral agreements is emphasized. Such agreements are to be sought in order to - (i) ensure the adoption of consistent conservation and management measures and harmonize fisheries regulations; and (ii) harmonize enforcement measures and develop scientific research programs (article 16).

The regional coordinator responsible for fisheries is required to periodically enumerate fishers, fishing boats and fishing gear throughout the region in respect of which he or she has been appointed (article 18).

The draft law recognizes the need to identify and inventory traditional fishing practices and subjects their formal recognition to their being compatible with the provisions of the fisheries law (article 17).

#### Regulation-making power

The draft law draws a distinction between regulations that are general in scope from those that are limited in scope. The former, which are retained by the central administration, are uniformly applicable throughout the country, whereas the latter, vested with regional Governors, vary in accordance with the characteristics of local fisheries and fishing practices. Regulatory powers devolved to regional Governors include - prescribing closed seasons; establishing prohibited fishing areas; prescribing minimum legal size of species of fish; setting fish quotas per species of fish; prescribing mesh sizes of nets and other fishing implements. Regional Governors are required to consult with regional fisheries committees prior to adopting any fisheries regulations (article 20).

#### Authorization to fish

Access to and exploitation of DRC fisheries are subject to the grant of either a fishing license or exclusive fishing rights<sup>94</sup>.

Fishing licenses are issued upon the payment of a prescribed fee and are valid for a 12-month period<sup>95</sup> (articles

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<sup>94</sup>See note 50.

<sup>95</sup> Under certain conditions to be determined by the State Commissioner responsible for fisheries, the validity of a fishing license may be extended to a period not exceeding 3 years.

23 and 24 respectively). Issuing authorities may refuse to grant fishing licenses in order to ensure the proper management of fishery resources in general or to comply with recommendations formulated in regional fisheries management plans. Non-compliance with international safety and seaworthiness standards<sup>96</sup> (article 25) by a fishing boat, in respect of which a license is sought, is another ground for refusing the grant of a fishing license. Fishing licenses may be suspended or revoked in accordance to recommendations adopted by regional fisheries management plans. The draft law further specifies that when exercising their powers, competent authorities shall have due regard to the interests of local fishing communities (article 27).

The draft law provides for a three-step process for the grant of exclusive fishing rights upon a designated area. Firstly, the State Commissioner is required to consult on this matter with the regional fisheries committee under the jurisdiction of which the proposed area falls. Secondly, an assessment of customary fishing rights in respect of the proposed area must be carried out. Thirdly, where the existence of such rights is clearly established, the State Commissioner shall promote the conclusion of a convention between local fishing communities and the beneficiary of an exclusive fishing right aiming at ensuring the continuation of the exercise of customary fishing rights by fishing communities (articles 32 and 33).

#### Protection and conservation measures

Use of explosives, noxious substances and electrical devices is strictly prohibited (article 36).

As a general rule, destruction of any fish larvae and juveniles is forbidden, as is fishing in breeding grounds (article 37).

Introduction of non-native species of fish into any water of DRC is prohibited without an authorization from the regional coordinator, who in turn is required to seek the advice of the regional fisheries committee and that of the State Commissioner responsible for fisheries (article 39).

#### Protection and conservation of aquatic ecosystems

In order to prevent the destruction of fish habitats, the draft law empowers the First State Commissioner to determine various categories of constructions and works whose undertaking would require the prior approval of the State Commissioner responsible for fisheries (article 42).

#### Sanitary measures and quality standards

The draft law encourages the adoption of sanitary measures for the handling and marketing of fish and fish

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<sup>96</sup> Though this provision has likely been designed to primarily ensure safety at sea, one may argue that it is also applicable to industrial fishing units operating on Lake Tanganyika.

products and the devising of quality standards applicable to such fish and products (articles 44 and 46).

#### Offenses and penalties

The regime governing offenses and penalties is based on the distinction between two broad categories of offenses, serious offenses and other offenses and the singling out of two specific offenses, fishing without authorization and obstruction of enforcement agents, by reason of their gravity (articles 55 to 58). The draft law also provides for the compounding of offenses (article 63).

#### **4.4 Tanzania**

The basic legislation on fisheries is **the Fisheries Act, No. 6 of 1970**. It applies to both marine and inland fisheries. It is a framework legislation, comprising 18 articles, enabling the Minister to make regulations for the general purposes of protecting, conserving, developing, regulating or controlling the capture, collection, gathering, manufacture, storage or marketing of fish, fish products and aquatic flora. More specifically, the Minister is empowered to - prohibit or regulate the use of fishing gear; prescribe the types and sizes of nets and mesh sizes thereof; prohibit, restrict or regulate the introduction of any non-native species of fish into Tanzania; prohibit or restrict the use of explosives or noxious substances for the purpose of fishing; provide for the protection of spawning grounds; prohibit or restrict the capture, collection, gathering, killing or injuring of immature fish; prohibit or restrict the collection, removal or destruction of any variety of fish or aquatic flora; control the import and export of fish, aquatic flora, fish products and products derived from aquatic flora; determine closed seasons; and limit or control the number and size of fishing vessels (fishing effort) (article 7).

The Minister may require that any person hold a license to engage in - fishing; collecting, gathering or manufacturing fish products or products of aquatic flora; and selling, marketing, importing or exporting of fish, fish products, aquatic flora or products thereof (article 4).

The Minister may declare any area or water to be a controlled area in relation to species of fish, fish products or aquatic flora. Fishing in such areas is subject to the written authorization of the Chief Fisheries Officer or any authorized officers (article 5).

The Act contains an exemption clause enabling the Minister to exempt any person or organization from all or any of the provisions of this Act or of any subsidiary legislation made thereunder, if in his or her opinion, it is in the public interest to do so (article 14).

Lastly, the Act sets the maximum fine and term of imprisonment that can be imposed on any person guilty of an

offense under any regulations made by the Minister (article 8).

The **Fisheries Principal Regulations 1989** apply to both marine and inland fisheries. They require every fishing vessel<sup>97</sup> operating within Tanzania waters to be registered locally by a licensing authority and recorded on the central registry of fishing vessels (articles 3 and 9). No person is entitled to use a vessel for fishing purposes unless a fishing license has been issued in respect of such vessel<sup>98</sup>. These regulations set out 6 different classes of fishing vessels for licensing purposes and specify that all fishing vessels to which a fishing license has been issued shall be kept in seaworthy condition (articles 11 and 12). In addition, licenses are also required for sport fishing<sup>99</sup>, aquarium fishing<sup>100</sup> and scientific research<sup>101</sup>. Every licensing authority must keep and maintain a local register of fishing licenses (article 14). With regard to the cancellation or revocation of fishing licenses, it is important to note that no provision is made for the Director of Fisheries to cancel fishing licenses for fisheries management purposes. Schedule 4 of the regulations lays out fishing methods exempted from taking out a fishing license -

- a) fishing for prawns using cloth;
- b) Using rod and line or handline from the beach without using a fishing vessel whether for sport fishing, domestic consumption or sale, except in a declared trout stream or a fish reserve;
- c) Small cast nets, seine nets for amusement, sport, domestic consumption or commercial purposes except in spawning grounds, closed waters or fish reserves;
- d) Baskets, traps, gill nets when used without using a fishing vessel for domestic consumption or sale, except in spawning grounds, closed waters or fish reserves.

A written permission or other authorization from the Director of Fisheries is required for, notably, the import of any live fish into Tanzania other than indigenous fish; and the introduction into any water of Tanzania of any non-native species of fish and their eggs, in particular that of blue gill sun fish, carps of all species of cyprinus, including gold fish (article 23).

They prohibit the use of explosives, poisons and electric devices for fishing purposes throughout Tanzania waters

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<sup>97</sup> Under the Fisheries Act, 1970, "fishing vessel" is defined as 'any boat or other aquatic or amphibious craft or vehicle used, outfitted or designed for the purpose of collecting, capturing, gathering, processing or transporting fish, whether operating on, above or below water.'

<sup>98</sup> Exemption is provided for government or public corporation owned vessels (article 11).

<sup>99</sup> Sport fishing is defined as "fishing for sport or pleasure and not for profits."

<sup>100</sup> License fees due by citizens and non-citizens for collecting or fishing aquarium fish are 1,200 shillings and US\$ 100 respectively. Fees for an export license and export tax for aquarium fish are 4,800 shillings and 3 shillings per fish respectively for citizens and US\$ 100 and 7,50 shillings per fish respectively for non-citizens.

<sup>101</sup> Fishing operations for scientific research purposes are subject to a special license granted without fees by the Director of Fisheries.

(article 26). In line with "the polluter pays principle", the regulations stipulate that any person who causes water pollution<sup>102</sup> is required to clean polluted waters at his or her own expenses. To that effect, the Director of Fisheries is required to establish a mechanism of consultation and cooperation with appropriate administrations or other organizations (article 27). Disturbance of any spawning grounds is prohibited (article 28).

Nets or other fishing gear should be set or used in such place or such manner as to not obstruct navigation (article 35). The use of monofilament nets, harpoons and spear guns is prohibited (article 40).

Access of foreign fishing vessels to Tanzania territorial waters for any purpose is generally prohibited, unless such entry is authorized under the Act, any other law or in accordance with any treaty or international agreement. In respect of access by foreign fishing vessels to fishing grounds lying within Tanzania territorial waters of Lake Tanganyika, the Director of Fisheries indicated in 1996 that Tanzania would consider allowing foreign fishing vessels into its waters and that terms and 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 compelled to land their catch in Tanzania or pay royalties on the quantity of fish caught.

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

#### **4.5 Common deficiencies in legal frameworks**

In light of the review above, principal deficiencies common to legal frameworks in all four lacustrine States bordering Lake Tanganyika can be summarized as follows:

- a) Old and outdated
- b) Regulations pertaining to Lake Tanganyika need to be reassessed periodically
- c) Insufficient or no enforcement of fisheries regulations

a) Although it is generally true to assert that legal frameworks pertaining to inland fisheries in all four countries under consideration are old and outdated, one should

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<sup>102</sup> Water pollution is defined as "the introduction by man directly or indirectly of substances or energy into sea water or freshwater, including estuaries, which results into or is likely to result in such deleterious or harmful effects to fish and other living organisms, hazard to human health, hindrance to marine activities, including fishing, impairment of quality for the use of sea or freshwater and reduction of amenities."

however temper such statement. The principal legislation governing fishing in both Burundi and DRC dates from the colonial period, at a time where both territories were administered as a single entity (Belgium colonies) by Belgium. Today, this text is obviously obsolete, as it does not reflect the current territorial and administrative organization of both Burundi and DRC. It is fair to say, however, that this text addresses numerous issues such as closed seasons, fish reserves, introduction of non-native species of fish, that are still central to contemporary concerns in fisheries management. In Zambia and Tanzania, the situation is quite different as current basic fisheries legislation were enacted in the early seventies. Both fisheries legislation provide for a broad legal framework vesting the Minister with broad regulatory powers enabling him or her to regulate most aspects of inland fisheries. However, no or few regulations applicable to Lake Tanganyika were adopted in these two countries. It should be emphasized that none of these fisheries legislation provides for an instrument of central or regional management planning, e.g. fisheries management plans, and where mechanisms of co-management were explicitly provided for as in Zambia<sup>103</sup> and DRC<sup>104</sup>, they have never been established. Moreover, none of the legal instruments in force encourages or envisions some form of cooperation with neighboring countries with regard to the management of shared inland fisheries resources.

b) Out of the four countries under consideration, only Tanzania has not yet enacted specific regulations in respect of Lake Tanganyika fisheries. In DRC and Burundi, comprehensive sets of regulations applicable to fishing operations in the lake were devised in 1958 and 1961 respectively. Though more recent, fisheries regulations pertaining to Lake Tanganyika fisheries in Zambia provide only for mesh size restrictions. Consequently, fisheries regulations applicable to Lake Tanganyika in all four lacustrine States would need to be reassessed or devised, as the case may be, in light of the recommendations formulated in the Framework Management Plan and would then need to be periodically reviewed in order to ensure their adequacy with the state of Lake Tanganyika fisheries.

c) As is, unfortunately, too often the case in the context of inland fisheries, fisheries regulations in all four countries bordering Lake Tanganyika are insufficiently or not enforced at all. According to all accounts, this results, to a large extent, from the absence of enforcement agents in the field. It is clear, however, that this situation is unlikely to change in the foreseeable future as development of inland fisheries is not a priority throughout the region. Also, under such circumstances, new enforcement approaches should be devised and introduced in fisheries legislation. They may include - (i) the systematic consultation and participation of fishers and other identified interest groups in the decision-making process (e.g. consultation in the formulation of fisheries management plan and prior to making fisheries

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<sup>103</sup> Section 12 of the Fisheries Act, No. 21 of 1974.

<sup>104</sup> Ordinance No. 274/Agri. of 1945.



regulations) in order to gain their support and increase the general level of compliance with management measures; and (ii) the participation of members of local fishing communities in enforcement activities<sup>105</sup>. Lastly, legislators must ensure that offenses and penalties schemes contained in fisheries legislation are sufficiently comprehensive and act as a deterrent. It is therefore recommended that such schemes be reviewed in all four lacustrine States and be modified accordingly. Periodic adjustment of level of fines may be achieved through the establishment of a mechanism similar to that introduced in Tanzania legislation<sup>106</sup>.

## **5. Institutional options for regional cooperation**

Fisheries authorities of Burundi, DRC, Tanzania and Zambia are all strong advocates of an enhanced regional cooperation for the management of Lake Tanganyika fisheries. Three major institutional options for facilitating such cooperation have been identified on the basis of interviews with fisheries and government officials in each of the four riparian States. The first option would involve a variation on the existing CIFA Sub-Committee for Lake Tanganyika, whereas the other two would require establishment of wholly new quadri-partite entities.

### **Option 1 - Regional Working Group of CIFA Sub-Committee for Lake Tanganyika**

This institutional arrangement would provide a regional forum for information and experience exchange. It would formulate recommendations and report to the CIFA Sub-Committee for Lake Tanganyika. The Regional Working Group would primarily deliberate on the following issues -

- a) conservation of fish stocks and aquatic ecosystems;
- b) harmonization of fisheries legislation;
- c) cooperation in monitoring, control and surveillance activities; and
- d) collaboration in research.

The working group type of institution would be broadly based and comprise a two-level structure. At national level, local stakeholders would combine in National Working Groups headed by National Coordinators. Each National Working Group would provide three representatives to the Regional Working Group, including National Coordinators. The latter 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 pursue the agenda set by the CIFA Sub-Committee during inter-sessional periods.

Such institutional arrangements offer four major advantages -

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<sup>105</sup> Note that none of the draft legislation reviewed in this chapter envisages the introduction of new mechanisms of enforcement.

<sup>106</sup> See the Fisheries (General Amendment) Regulations, 1994, in section 4.4, page 31.

- a) It could be developed through an existing body;
- b) Funding would be required but costs could be kept within reasonable limits;
- c) It would facilitate community participation in fisheries management;
- d) It has the potential and flexibility for expansion and integration at a later stage with other institutional arrangements such as the regional environment body envisioned by LTBP.

Possible disadvantages may also be foreseen -

- a) As a subsidiary body, the Regional Working Group would heavily depend for its effectiveness and relevance on the parent CIFA Sub-Committee;
- b) Low-level participation would not ensure high visibility, which in turn might preclude adequate political support.

Having regard to the current political and socio-economic climate in the region, option 1 appears to be the only feasible option at the moment, as it would only require reasonable funding and offer a high level of flexibility for expansion.

#### **Option 2 - Technical Committee with a Permanent Secretariat**

This type of institutional arrangement would also serve coordinating and advising functions. Unlike the Regional Working Group, the Technical Committee would be a separate legal entity with its own budget that would replace the CIFA Sub-committee for Lake Tanganyika. It would be supplemented in its tasks by National Working Groups headed by National Coordinators. As a permanent body, it would require establishment of a permanent secretariat to arrange meetings, disseminate information and collate recommendations made at national level and generally provide administrative support. To that effect, riparian States would have to work out an agreement identifying which country would host the permanent secretariat and determining the financial contribution of each contracting party for its functioning. This type of institution would be a high-level technical body composed of both Fisheries and Research Directors assisted by the four National Coordinators.

Principal advantages offered by this type of institutional arrangement are as follows -

- a) it would ensure contracting parties greater independence in management of Lake Tanganyika fisheries;
- b) it would facilitate and strengthen community participation in fisheries management.

Operational costs would be high and thus must be regarded as a disadvantage. Conclusion of such an arrangement would require adequate political support at a time where inland fisheries is not given a high priority in the region.

### **Option 3 - Organization based on Lake Victoria Fisheries Organization model**

This institutional arrangement would be modelled on the Lake Victoria Fisheries Organization (LVFO) established in 1994<sup>107</sup>. This option is by far the most involved and ambitious, for it would require the establishment of an independent intergovernmental organization with considerable funding and staffing requirements. LVFO mostly serve advisory and coordinating functions. It 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 Secretary 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.

Establishment of an LVFO-type structure would require considerable political will and financial resources. Such an organization would enjoy a high level of visibility. However, operational costs would be quite substantial and as a result institutional stability may rapidly come to depend on donor funding. Moreover, negotiating such type of an agreement is likely to be a lengthy process. No less than six years were required for Uganda, Tanzania and Kenya to adopt the Convention creating LVFO, even though these countries share a long tradition of cooperation and a common legal heritage. Lastly, it should be recognized that the political and socio-economic climate prevailing in the region at the moment is certainly not favorable for the negotiation of an agreement of this nature.

## **6. Actions to be taken at national level for the implementation of the measures proposed in the Framework Management Plan**

This chapter will assess the adequacy of each national legal framework for implementing the measures proposed in the FMP (Annex 1), outline actions that can be taken immediately to implement such measures and propose modifications to both existing and draft fisheries legislation to facilitate their implementation.

### **6.1 Zambia**

#### **6.1.1 Adequacy of existing and draft fisheries legislation**

Table 1 of Annex 1 shows that the basic fisheries legislation in Zambia provides sufficient legal basis for the

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<sup>107</sup> Convention for the Establishment of the Lake Victoria Fisheries Organization, adopted by the Conference of Plenipotentiaries held in Kisumu, Kenya, on 30 June 1994.

implementation of most of the measures proposed in the FMP. Provisions determining the scope and nature of the Minister's regulatory powers were designed in such a broad fashion that they enable the Minister to regulate virtually all aspects of fisheries including as, for instance, the establishment of prohibited fishing areas in commercial fishing areas, which is not explicitly provided for in the Fisheries Act. The Fisheries Act does not provide for any mechanism of enforcement involving local communities (control of access to inshore areas by local communities). However, having regard to the management scheme designed to control fishing operations in Lake Kariba, there should not be any objection by fisheries managers to introduce such type of mechanisms into Lake Tanganyika. Study of existing customary fishing rights, if any, would be required prior to taking such action.

Provisions of the draft law have generally been worded more precisely, notably, those defining the scope of the Minister's regulatory powers - e.g. section 8 (1) (d) authorizing the Minister to limit the number of fishing licenses that can be issued (table 2, annex 1). By empowering the Minister to establish and regulate community-based fisheries management schemes, the draft law enables the Minister to introduce the type of control mechanism recommended in the FMP (recommendation 6).

#### **6.1.2 Actions to be taken on the basis of existing legislation**

Actions that can be immediately taken on the basis of the existing legal framework to implement or facilitate the measures proposed in the FMP are as follows -

- Adopt the CCRF as a general guideline for fisheries management and in particular for the management of shared fisheries of Lake Tanganyika<sup>108</sup>.
- Draft fisheries regulations on Lake Tanganyika.
- Adopt the draft law taking into consideration comments made below.
- Study, identify and compile customary fishing rights on Lake Tanganyika in order to build on the existence of such rights for designing mechanisms of control of access to the lake fisheries by local communities.
- Assess whether the community-based fisheries management mechanism introduced on Lake Kariba is successful and determine how it can be extended to Lake Tanganyika in light of both the study on customary fishing rights and power structure on the lake (see above) and taking into account fishers organization around the Lake.
- Devise and launch an awareness campaign designed to inform fishers operating on Lake Tanganyika on the objectives of the FMP.

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<sup>108</sup> General principles contained in article 6 of CCRF are reflected in the draft law in the section on general principles of management.

### 6.1.3 Supplementary legislation

#### a) Modifications to the draft law

Where reviewing the draft law, legislators should have regard to the following points -

- Complete the interpretation section by incorporating definitions of, notably, "fishing boat" and "fishing".
- Reconcile wording of section 8 (3), stipulating that the Minister may authorize, in consultation with the Commissioner, a Fishery Management Board to exercise any of the powers (including regulatory powers) conferred upon her or him under this Act, with that of section 18 setting out the purely advisory functions of such Fishery Management Boards.
- Modify the procedure of consultation provided for in the draft law for the preparation of fishery management plans in fishery management areas where no Fishery Management Board is established so as to ensure the consultation of local stakeholders in the decision-making process<sup>109</sup>.
- Subject the Minister's power to make regulations to a mechanism of consultation with relevant Fishery Management Boards or local stakeholders where no such boards have been established.
- Part IV of the draft law on licenses which provides for a licensing system for both fishing and aquaculture operations should be completed by specifying the conditions that can be imposed on a fishing license and whether fishing licenses are transferable or not<sup>110</sup>.
- Modify section 52 by specifying that the Minister may establish prohibited fishing areas.
- Remove section 35 (1) (1) allowing an authorized officer, "in accordance with an agreement of cooperation in enforcement of this Act to pursue into another country any person, fishing boat or vehicle that he or she has reasonable grounds to believe has committed or was involved in the commission of an offense" as inclusion of such provision into the Act would only be warranted to translate international commitments of the State into national law, which is not the case here since no such agreement has been or is about to be concluded; and replace such language by a general provision encouraging the negotiation and conclusion of regional or bilateral agreements with neighboring countries sharing fisheries resources in order to strengthen cooperation for enforcement of fisheries legislation.
- Address the issue of aquarium fish (regime of authorization).
- Extend the authorization regime applicable to non-native species of fish to that of aquatic flora.

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<sup>109</sup> The following language – "or in consultation with all interested persons where no Fishery Management Board has been established in respect of a fishery management area" - could be inserted after the phrase "in consultation with the Fishery Management Board of a fishery management area" in section 12 (1).

<sup>110</sup> Note that curiously such types of provisions are incorporated into the draft law but are only applicable to aquaculture licenses.

- Provide for the identification and compilation of customary fishing rights and determine to which extent such rights should be recognized by statutory law.
- Devise mechanisms of enforcement involving local communities with a view to improving the efficacy of enforcement of fisheries regulations<sup>111</sup>.
- Address the issue of safety on the water (especially with regard to industrial fishing and artisanal units)<sup>112</sup>.
- Devise a mechanism of disputes settlement.

#### b) Regulations on Lake Tanganyika

As indicated above Zambia, with the assistance of FAO, is in the process of revamping its basic fisheries legislation. In addition, draft regulations providing for a community-based management mechanism for Lake Kariba fisheries have been circulated and may soon be adopted. Needless to say that they would provide a valuable basis for the drafting of like regulations on Lake Tanganyika. However, devising of such regulations should not be undertaken prior to having acquired adequate knowledge on traditional fishing practices and customary rights on the lake. Analysis of Zambia legislation shows that hitherto only a few provisions regulating fishing operations on Lake Tanganyika have been adopted. Consequently, Zambia needs to devise a comprehensive set of regulations applicable to Lake Tanganyika. Such regulations should address the following issues -

- Devise various classes of fishing units (boats/fishing gear) or categories of fishing operations<sup>113</sup>.
- Determine which classes of fishing units are required to carry a fishing license.
- Determine the number of licenses that can be issued for industrial fishing units.
- Provide for prohibited or authorized methods of fishing and restrictions on certain methods of fishing (gradual phasing out of beach seining, taking into account general rejection expressed by fishers for a complete ban of such method of fishing)
- Establish prohibited fishing areas (for all purposes/ in respect of any fishing method or any species of fish). Establishment and demarcation of prohibited industrial fishing areas and beach seining areas.
- Provide for gear specification ( mesh sizes and length of nets and other fishing implements).
- Establish closed hours and/or closed seasons.
- Ban the introduction of any non-native species of fish or aquatic plants.

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<sup>111</sup> The draft law may, for instance, make provision for the designation of posts within local authorities of which the incumbents are local fishery inspectors or/and for the appointment of a person nominated by traditional authorities as a local fishery inspector.

<sup>112</sup> Certain categories of fishing boats may be required to carry basic safety equipment such life buoys.

<sup>113</sup> Various classes of fishing units or categories of fishing operations for licensing purposes may be determined in Fisheries Regulations applicable throughout Zambia. Note that a specific classification of fishing units or fishing operations may be designed on Lake Tanganyika for the purpose of facilitating regional management of the lake fisheries.

## **6.2 Burundi**

### **6.2.1 Adequacy of existing and draft fisheries legislation**

The basic fisheries legislation in Burundi vests competent authorities with broad regulatory powers enabling them to regulate all aspects of fisheries, as reading of table 1 annex 1 clearly shows. Conceived as a centralistic piece of legislation, it contains no mechanisms of consultation with stakeholders or decentralized management systems. It does, however, recognize the exercise of traditional fishing rights by local populations to the extent that they do not conflict with statutory law.

The draft law is a comprehensive piece of legislation. It contains precise language providing sound legal basis for the implementation of most measures proposed in the FMP (table 2, annex 1). Moreover, by extending the grant of exclusive fishing rights to any person, including fishers associations, it may provide the basis for the development of a co-management system<sup>114</sup>. Contrary to the 1937 Decree, it does not formally recognize traditional fishing rights.

### **6.2.2 Actions to be taken on the basis of existing legislation**

Actions that can be immediately taken on the basis of the existing legal framework to implement or facilitate the measures proposed in the FMP can be summarized as follows -

- Adopt the CCRF as a general guideline for fisheries management and in particular for the management of shared fisheries resources of Lake Tanganyika.
- Assess the adequacy of the provisions of the Fisheries Regulations on Lake Tanganyika 1961 in light of the findings and conclusions of the FMP.
- Adopt draft legislation taking into account comments made below.
- Study, identify and compile customary fishing rights on Lake Tanganyika in order to build on the existence of such rights for designing mechanisms of control of access to the Lake fisheries by local communities.
- Devise mechanisms of co-management using Zambian experience as a reference.
- Devise and launch an awareness campaign designed to inform fishers operating on Lake Tanganyika on the objectives of the FMP.

### **6.2.3 Supplementary legislation**

As in Zambia, Burundi is in the process of reviewing its fisheries legislation as draft legislation prepared in the early nineties, before Burundi was engulfed in a civil war,

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<sup>114</sup> It seems that the intent of the Fisheries Department would be to use the provision on exclusive fishing rights for authorizing the establishment and exploitation of fish farms in designated sites. If such were the intent of the administration, thus this provision should be removed and a system of authorization for the establishment and exploitation of fish farms should be provided for under part V on aquaculture or devised on the basis of article 33.

are being reintroduced. While there is no need to draft new pieces of legislation<sup>115</sup>, analysis of the draft texts, earlier in this study, showed that some aspects of the draft legislation should be revised before being submitted to Parliament.

#### a) Modifications to draft Fisheries Bill

- Devise two separate definitions for subsistence and sport fishing as they constitute two different activities and thus may be subject to distinct legal regimes.
- Include a few definitions such as "fishing boat", "fishing", "aquaculture", "fish" and "aquatic organisms".
- Reintroduce a mechanism of consultation for the preparation of the fisheries management plan so as to gain adherence of stakeholders to conservation and management measures and thus ensure a higher level of compliance with fisheries regulations.
- State in the draft law the general principles underlying the fisheries management approach adopted by fisheries managers so as to reflect Burundi's adherence to CCRF principles.
- Specify the maximum extent of any designated area in respect of which exclusive fishing rights may be granted<sup>116</sup>.
- Extend the list of enforcement officers to officers of other Ministries such as the Ministry responsible for environmental affairs or provide for a mechanism of designation of enforcement officers in other Ministries by the Minister responsible for fisheries (in consultation with competent authorities).
- Devise mechanisms of enforcement involving local communities<sup>117</sup>.
- Review the offenses and penalties scheme in order to restore its global coherence.<sup>118</sup>
- Encourage international cooperation for the management of shared fisheries resources.<sup>119</sup>
- Provide legal basis for the introduction of co-management systems, including the consultation of concerned stakeholders prior to the devising of fisheries regulations by the Minister.
- Address the issue of safety on the water.
- Devise a mechanism of disputes settlement.

#### a) Modifications to draft fisheries regulations

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<sup>115</sup> Specific regulations on Lake Tanganyika fisheries may be devised separately or included in general fisheries regulations applicable throughout Burundi as is the case in the proposed fisheries regulations.

<sup>116</sup> Maximum limits of a designated area may be set either in the draft Fisheries Bill or in the draft Fisheries Regulations.

<sup>117</sup> See note 111.

<sup>118</sup> Coherence of the offenses and penalties regime provided for in the draft fisheries bill can be restored by – (a) reintroducing in its entirety and without any modification the provisions of the 1992 FAO draft bill, specifying for each category of offenses corresponding sanctions (which have to be different); or (b) regrouping all offenses in one single article providing for a maximum fine and a maximum term of imprisonment (it would then be in the discretion of the judge to modulate the sanction to be imposed in relation to the seriousness of the offense committed).

<sup>119</sup> This can be done by reintroducing article 72 of the 1992 FAO draft fisheries bill.



- Decide whether or not subsistence and/or sport fishing should be subject to an authorization regime and then reconcile wording of article 2 of the fisheries regulations (which subjects both activities to an authorization) with that of article 16 of the draft fisheries bill (which stipulates that these two activities can be exercised freely).
- Remove sport fishing from the list of professional fishing activities (article 15), as sport fishing is not a professional fishing activity according to the definitions provided under the draft fisheries bill (article 3). If the intent of the legislator was to subject sport fishing operations to an authorization regime, thus it should be so stated in the draft bill by drafting a separate article under chapter 2 of part III. Restrictions to sport fishing operations such as specifications of the types of gear that can be lawfully used could then be set forth in the fisheries regulations by inserting a new article.
- Ban beach seining throughout the portion of Lake Tanganyika placed under Burundi jurisdiction on the basis of article 65 of the 1937 Decree.
- Adjust, if necessary, the limit imposed on the number of industrial fishing licenses that can be issued in the Burundi portion of Lake Tanganyika.
- Review the classification of fishing units with a view to harmonizing fisheries regulations.

### **6.3 Democratic Republic of Congo**

#### **6.3.1 Adequacy of existing and draft fisheries legislation**

Comments made under section 6.2.1 are applicable to this section as both Burundi and DRC fisheries are still governed by the 1937 Decree inherited from the colonial period. However, it is worth mentioning that a 1945 Ordinance was enacted to provide for the establishment of Local Fisheries Committees (system of co-management).

The draft law provides strong legal basis for the implementation of most of the measures proposed in the FMP (table 2, annex 1). Contrary to the 1937 Decree, it introduces a decentralized system of management, vesting regulatory powers with regional authorities, providing for the establishment of Regional Fisheries Committees and recognizing customary fishing rights to the extent that such rights are consistent with statutory law.

#### **6.3.2 Actions to be taken on the basis of existing legislation**

Actions that can be taken on the basis of the existing legal framework to implement or facilitate the measures proposed in the FMP are summarized as follows -

- Adopt the CCRF as a general guideline for fisheries management and in particular for the management of shared fisheries resources of Lake Tanganyika.

- Assess the adequacy of both 1958 Fisheries Regulations on Lake Tanganyika in light of the findings and recommendations of the FMP.
- Adopt the draft fisheries bill taking into account comments made below.
- Study, identify and compile customary fishing rights on Lake Tanganyika in order to build on the existence of such rights for designing mechanisms of control of access to the Lake fisheries by local communities.
- Devise and launch an awareness campaign designed to inform fishers operating on Lake Tanganyika on the objectives of the FMP.

### 6.3.3 Supplementary legislation

#### a) Draft fisheries bill

Though drafted in 1985, the fisheries bill remains an adequate legal instrument on the basis of which the fisheries management approach designed in the FMP could be implemented. A few modifications could nonetheless be envisioned -

- Determine the objectives of the bill and lay out the general principles of management (reflecting DRC's adherence to CCRF principles) guiding decision-makers in their actions.
- Introduce a few definitions such as "fishing boat", "fish" and "species"<sup>120</sup>.
- Devise mechanisms of enforcement involving local communities<sup>121</sup>.
- Insert specific language enabling competent authorities to restrict the number of fishing licenses that can be issued in respect of any water body.
- Address the issue of aquarium fish.
- Devise a mechanism of disputes settlement.

#### a) Fisheries regulations on Lake Tanganyika

The two sets of regulations that were designed to govern fishing operations on the northern and southern portions of Lake Tanganyika in 1958 need to be revised in light of the recommendations made in the FMP. It should, *inter alia*, address the following issues -

- Ban the introduction of any non-native species of fish and aquatic plants.
- Limit the number of industrial fishing licenses that can be issued in the portion of the lake falling under DRC jurisdiction.

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<sup>120</sup> Article 39 provides for the "introduction of new species" without defining the word 'species'. It can thus be interpreted as including both species of aquatic fauna and flora or only species of fish as no reference to aquatic plant or flora is made in the bill. Therefore, it is recommended to refer to "non-indigenous species of fish" or "non-indigenous species of aquatic organisms" instead, provided that a broad definition of either fish or aquatic organisms covering both aquatic fauna and flora is included in the bill.

<sup>121</sup> See note 111.

- Ban beach seining throughout the portion of Lake Tanganyika placed under DRC jurisdiction.
- Review the classification of fishing units with a view to harmonizing fisheries regulations.

## **6.4 Tanzania**

### **6.4.1 Adequacy of existing legislation**

Like in the other three lacustrine States, the basic fisheries legislation in Tanzania vests broad regulatory powers with the Minister enabling him or her to regulate virtually all aspects of fisheries. However, it does not provide any legal basis for the establishment of co-management mechanisms and is silent on the issue of fisheries management planning. Moreover, Tanzania differs from the other countries under consideration in that it is the only State with a sizable economic exclusive zone. Also, unlike in DRC where the basic fisheries law is primarily directed at regulating inland fisheries that of Tanzania is designed to deal with both marine and inland fisheries. In this regard, the Fisheries Principal Regulations 1989, which apply to both marine and inland fisheries, appear to be not sufficiently precise as they do not draw any distinction between general provisions applicable to both inland and marine fisheries and that which are primarily designed to regulate either inland or marine fisheries. Hence, it would be advisable to modify the Fisheries Principal Regulations 1989 so as to clarify the scope of its regulations or to devise two separate sets of regulations, one regulating inland fisheries and the other marine fisheries.

### **6.4.2 Actions to be taken on the basis of existing legislation**

Actions that can be immediately taken on the basis of the existing legal framework to implement or facilitate the measures proposed in the FMP are as follows -

- Adopt the CCRF as a general guideline for fisheries management and in particular for the management of shared fisheries of Lake Tanganyika.
- Amend the Fisheries Act of 1970.
- Draft fisheries regulations applicable to inland fisheries<sup>122</sup>.
- Draft fisheries regulations applicable to Lake Tanganyika<sup>123</sup>.
- Study, identify and compile customary fishing rights on Lake Tanganyika in order to build on the existence of such rights for designing mechanisms of control of access to the lake fisheries by local communities.

<sup>122</sup> Having regard to the importance of inland fisheries in Tanzania, it might be useful to develop two separate sets of fisheries regulations, one dealing with sea fisheries and the other with inland fisheries. Consequently, the Fisheries Principal Regulations 1989, which apply to both marine and inland fisheries, would be abrogated and replaced by these two sets of regulations. The other option, mentioned in section 6.4.1, would be to modify the Fisheries Principal Regulations 1989 so as to clearly distinguish between regulations applying to both marine and inland fisheries from those applying to either marine or inland fisheries.

<sup>123</sup> Fisheries regulations applicable to Lake Tanganyika may be either incorporated in the general fisheries regulations on inland fisheries or devised separately.

- Devise and launch an awareness campaign designed to inform fishers operating on Lake Tanganyika on the objectives of the FMP.

#### 6.4.3 Supplementary legislation

Tanzania is the only lacustrine State under consideration, which has not expressed through the preparation of a draft law the need to modify its basic fisheries legislation. While it constitutes a broad framework offering a lot of flexibility, it could certainly be improved and be usefully supplemented by a series of specific regulations.

##### a) Modifications to the Fisheries Act 1970

The Fisheries Act 1970 would be modified in order to make provisions in relation to -

- The preparation of regional fisheries management plans;
- The general principles of management reflecting Tanzania's adherence to CCRF principles.
- The decentralization (deconcentration/devolution) of regulatory powers.
- The devising of mechanisms of co-management.
- The devising of mechanisms of enforcement involving local communities<sup>124</sup>.
- The establishment of prohibited fishing areas (in general, in respect of any method of fishing or any species of fish).
- The devising of a mechanism of disputes settlement.

##### b) Fisheries regulations on Lake Tanganyika

Insofar as it could be established, it appears that Tanzania has not yet enacted any specific regulations in respect of Lake Tanganyika fisheries. Also, at a time where a regional fisheries management plan for Lake Tanganyika is under consideration, Tanzania lawmakers should remedy the situation by devising a set of regulations for Lake Tanganyika fisheries with a view to facilitating harmonization of fisheries regulations on the lake. Such regulations should address the following issues -

- Devise various classes of fishing units (boats/fishing gear) or categories of fishing operations.
- Determine which classes of fishing units are required to carry a fishing license.
- Determine the number of licenses that can be issued for industrial units.
- Establish prohibited fishing areas (for all purposes/ for the protection of spawning grounds/in respect of any fishing method or any species of fish). Establish and demarcate prohibited industrial fishing areas.
- Determine prohibited or authorized methods of fishing and restrictions on certain methods of fishing.

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<sup>124</sup> See note 111.

- Ban beach seining.
- Establish closed hours (fishing at night) and/or closed seasons.
- Set gear specifications (mesh sizes and length of nets and other fishing implements).
- Ban the introduction of non-native species of fish or aquatic plants.

## **6.5 Harmonization of fisheries legislation to facilitate the implementation of the FMP**

Harmonization of fisheries regulations has long been identified as a key element of cooperation in the lake area that would greatly facilitate the implementation of a regional fisheries management plan. Chapter 6 of this study indicates for each of the four lacustrine States the basic measures that should be undertaken at national level to indirectly achieve this goal. Particular emphasis should be placed on several of these measures -

- a) Elaboration of a common classification of fishing units or categorization of fishing operations

Elaboration of a common classification of fishing units or categorization of fishing operations in Lake Tanganyika would help ensure uniform implementation of conservation and management measures throughout the lake. In addition, it would enable the development of common procedures for the collection of data and information from these various classes of fishing units and hence reduce the risk of distortion in the analysis of these data and information.

This could be achieved on the basis of the observations made in LTR studies. Fishing operations on Lake Tanganyika are conventionally classified into three broad categories according to the type of fishing gear that is used in carrying out such operations - traditional, artisanal and industrial fishing.

Traditional fishing is based on the use of "lusenga" or scoop nets (in conjunction with fire light or lamp light attraction) for the harvest of clupeids, and gill nets, long lines, hand lines, traps, spears and poisons for the capture of demersal species. It is for the most part a subsistence activity undertaken by fishing units comprised of one or two persons operating dugouts or simple plank canoes propelled by paddles and, in some cases, by sail.

Artisanal fishing is primarily a commercial activity using lift nets ("Apollo" lift nets), "chiromila" seines and beach seines. Artisanal fishing units principally comprise catamarans, typically made of two wooden planked canoes lashed together with poles.

Industrial fishing is based on the use of purse seine operated by fishing units comprised of a large (16-20 m) steel vessel, a smaller net-setting vessel and 3 or more light boats, manned by a crew of 20 to 40 persons.

b) Development of mechanisms of management in partnership

The need to devise mechanisms of management in partnership, which ranges from consultation mechanisms to devolution of management functions to regional, local or traditional authorities, in order to associate fishers and other identified interest groups in the decision-making process (formulation of fisheries management plan, adoption of fisheries regulations) has been emphasized in the preceding sections of this document. Development of such type of mechanisms at national level would lay the foundation for the establishment of national working groups and hence facilitate the creation of a regional working group for the management of Lake Tanganyika fisheries.

c) Enforcement of fisheries legislation

Adequate enforcement of fisheries regulations throughout the Lake is critical to ensure broad compliance with conservation and management measures. To this end, several measures have been proposed in the preceding sections of this document to strengthen enforcement schemes at national level - (a) devise mechanisms of enforcement involving local communities; (b) broaden the range of enforcement officers to officers of other ministries; and (c) associate fishers and other identified interest groups in the decision-making process through consultative and participatory mechanisms to diminish the risk of violation of management measures. Simultaneously, regional cooperation for the enforcement of fisheries regulations should be encouraged and might ultimately result in the adoption of a regional enforcement agreement allowing, *inter alia*, enforcement officers of each of the four lacustrine States to continue the pursuit of a fishing boat suspected to have violated the fisheries regulations of one State into the waters of a neighboring State, as is envisioned in the draft Fisheries bill of Zambia. Under the current circumstances, however, promotion of such type of an agreement is premature and therefore more modest and realistic measures should be sought such as exchange of information on violators between enforcement officers through the regional working group.

**ANNEX 1 - PROVISIONS CONTAINED IN BOTH EXISTING AND DRAFT FISHERIES LEGISLATION PROVIDING LEGAL BASIS FOR THE IMPLEMENTATION OF THE MEASURES PROPOSED IN THE FMP<sup>125</sup>.**

***Table 1 - Provisions contained in existing fisheries legislation providing legal basis for the implementation of measures proposed in the FMP.***

	<b>ZAMBIA</b>	<b>BURUNDI</b>	<b>DRC</b>	<b>TANZANIA</b>
<u>Gear restrictions</u> Recommendation 2: Management measures should aim at the total retirement/phasing out of beach seining on the Lake	Section 4 of Fisheries Act No.21 of 1974 enables the Minister to prohibit or restrict any method of fishing in respect of any area; Section 6 (2) and section 21 (1) (d) of Fisheries Act 1974 authorized the Minister to regulate methods of fishing in any prescribed area; and section 8 (2) (b) of Fisheries Act 1974 authorized the Minister to control methods of fishing in respect of any commercial fishing area.	Competent authorities may prohibit certain methods of fishing and the use of certain fishing gear (Article 65 of the 1937 Decree on Hunting and Fishing).	Competent authorities may prohibit certain methods of fishing and the use of certain fishing gear (article 65 of the 1937 Decree on Hunting and Fishing).	The Minister is empowered to prohibit or regulate the use of fishing gear [article 7 (2) (f) of the Fisheries Act, 1970].
<u>Area restrictions</u> Recommendation 3: Establishment of beach seining prohibited areas Recommendation 4: Establishment of prohibited industrial fishing areas in both the extreme north and south sub-basins of the Lake	No specific provisions enabling the Minister to declare prohibited fishing areas under Fisheries Act 1974, however, the Minister may use section 4 of the Act for this purpose; Section 6 of Fisheries Regulations 1986 provides for the establishment of prohibited fishing areas in commercial fishing area.	No specific provisions on this matter. However, competent authorities are generally empowered to prohibit or restrict fishing (article 63 of 1937 Decree); In Lake Tanganyika, industrial fishing is prohibited within a 5 km-wide area measured from the shoreline (article 14 of 1961 Ministerial Regulation).	No specific provisions on this matter. However, competent authorities are generally empowered to prohibit or restrict fishing (article 63 of 1937 Decree); In Lake Tanganyika, industrial fishing is prohibited within a 5 km-wide area measured from the shoreline (article 13 of 1958 Regulation on Lake Tanganyika, Shaba Region and article 12 of 1958 Regulation on Lake Tanganyika, Kivu Region);	No specific provisions on this matter. However, the Minister is empowered to make provisions for the general purposes of protecting, conserving, regulating or controlling the catching of fish (article 7 of the Fisheries Act, 1970).

<sup>125</sup>Note that recommendation 1, which provides for the adoption of CCRF by each of the four lacustrine States, has not been incorporated in both table 1 and table 2.

<b>Input/output controls to regulate fishing</b> Recommendation 5: Determination of licensing ceilings for both industrial fishing units in the south and lift net units in the north	No specific provisions on this matter provided for under the existing legal framework. However, the Minister is generally empowered to prohibit, restrict and regulate fishing [section 8 (2) (a) of Fisheries Act 1974]	No specific provisions on this matter. However, competent authorities are generally empowered to prohibit or restrict fishing (article 63 of 1937 Decree); Industrial licenses to be issued in respect of Lake Tanganyika are restricted to 6 (article 10 of 1961 Ministerial Regulation).	No specific provisions on this matter. However, competent authorities are generally empowered to prohibit or restrict fishing (article 63 of 1937 Decree);	The Minister is specifically empowered to limit or control the number of fishing vessels [article 7 (2) (r) of the Fisheries Act, 1970].
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	<b>ZAMBIA</b>	<b>BURUNDI</b>	<b>DRC</b>	<b>TANZANIA</b>
<u>Access restriction</u> Recommendation 6: Use licensing systems as a means to control individual entry into fishery and through process of consultation and negotiation begin creating a use right structure based on control of particular inshore zones or territories by particular communities	<p>A special license is required to fish in any prescribed area [section 7 of Fisheries Act 1974 and section 2 (2) of the Fisheries (Prescribed Areas) (Declaration) Order of 1986];  The Minister is authorized to prescribe the licenses which must be held by any person fishing in any commercial fishing area [section 8 (2) (d) of Fisheries Act 1974 and section 3 of Fisheries Regulations 1986];</p> <p>No provisions on control of access to particular inshore zones by particular communities.</p>	<p>Competent authorities may subject fishing operations to fishing permit (article 63 of 1937 Decree);  A fishing permit is required for all types of fishing operations on Lake Tanganyika (article 2 of 1961 Ministerial Regulation).</p> <p>No provisions on control of access to particular inshore zones by particular communities.</p>	<p>Competent authorities may subject fishing operations to fishing permit (article 63 of 1937 Decree);  A fishing permit is required for all types of fishing operations on Lake Tanganyika (article 2 of both 1958 Regulations applicable to Shaba and Kivu Regions respectively).</p> <p>No provisions on control of access to particular inshore zones by particular communities.</p>	<p>The Minister is authorized to issue an order providing that no person shall engage in fishing save under a license (article 4 of the Fisheries Act, 1970);  No person is entitled to use a vessel for fishing purposes unless a fishing license has been issued in respect of such vessel (section 11 of the Fisheries Principal Regulations, 1989).</p> <p>No provisions on control of access to particular inshore zones by particular communities.</p>
<u>Management in partnership</u> Recommendation 7: Provide for community-based management structures and mechanisms	<p>Section 12 of Fisheries Act 1974 provides for appointment by the Minister of Fishing Development Committees in respect of any commercial fishing area.</p>	<p>No specific provisions on this matter.</p>	<p>Creation of Local Fisheries Committees is provided for under article 1 of Ordinance No. 274/Agri of 1945.</p>	<p>No specific provisions on this matter.</p>

### Comments

1) Note that every basic fisheries legislation provides for a general provision enabling the Minister to make regulations prohibiting, restricting or regulating fishing operations. It may be argued that such catchall-type provision provides sufficient legal basis for the Minister to make regulations on virtually any fisheries related matters.

2) The grant of exclusive fishing rights in respect of a designated area may be regarded as a mechanism of co-management, where such rights are entrusted with fishing communities or fishers associations. The 1932 Decree on exclusive fishing rights (applicable to both Burundi and DRC), enabling competent authorities to grant exclusive fishing rights in respect of designated area, seemed to have been conceived to benefit individuals not communities or associations and thus cannot be considered as a mechanism of co-management. For this reason, it was not incorporated in the table above.

**Table 2- Provisions contained in draft fisheries legislation providing legal basis for the implementation of the measures proposed in FMP.**

	<i>ZAMBIA</i>	<i>BURUNDI</i>	<i>DRC</i>
<u>Gear restrictions</u> Recommendation 2: Management measures should aim at the total retirement/phasing out of beach seining on Lake	The Minister is empowered to prohibit or restrict in respect of any area the use of any method of fishing that is "likely to prove destructive" [section 8 (2)].	The Minister may prohibit or restrict the use of any fishing gear and method of fishing [article 26 (1) (e) of draft law].	The regional Governor is empowered to regulate the type of fishing gear that can be used in the area under his or her jurisdiction [article 20 (4)].
<u>Area restrictions</u> Recommendation 3: Establishment of beach seining prohibited areas Recommendation 4: Establishment of industrial fishing areas in both the extreme north and south sub-basins of the Lake	The Minister may generally or in respect of any area prohibit or regulate fishing [section 8(1) (a)].	The Minister may establish areas where certain methods of fishing are prohibited [article 26 (1) (b) of draft law]. Artisanal and industrial fishing are banned within a 5 km-wide zone measured from the shoreline and within a radius of 15 km around Bujumbura (article 10 of draft fisheries regulations)	The regional Governor may establish prohibited fishing areas [article 20 (1)].
<u>Input/output controls to regulate fishing</u> Recommendation 5: Determination of licensing ceilings for both industrial fishing units in the south and lift net units in the north	The Minister is authorized, generally or in respect of any area, to restrict the number of fishing licenses that can be issued [section 8 (1) (d) and section 52 (2) (d)]; In addition, the draft law provides that each fishery management plan shall specify the number of fishing licenses that can be issued in respect of each fishery [section 12 (3) (d)].	Though the draft law does not specifically provide for the limitation of fishing units, it stipulates that the Minister is empowered to limit the number of fishers authorized to fish at any given time in any water body [article 26 (1) (g) of draft law].	No specific provisions on this matter.

<u>Access restriction</u> Recommendation 6: Use licensing systems as a means to control individual entry into fishery and through process of consultation and negotiation begin creating a use right structure based on control of particular inshore zones or territories by particular communities	<p>No person is allowed to fish without having first obtained a license (section 22)].</p> <p>No provisions on control of access to particular inshore zones by particular communities.</p>	<p>Professional fishing is subject to a licensing system [article 10 (1) of draft law].</p> <p>No provisions on control of access to particular inshore zones by particular communities.</p>	<p>No person shall engage in commercial fishing, except with an authorization to do so (article 21).</p> <p>Note that the draft law provides for the recognition of customary fishing rights to the extent that such rights are consistent with statutory law (article 17).</p>
<u>Management in partnership</u> Recommendation 7: Provide for community-based management structures and mechanisms	<p>One of the general principles of management is the need to achieve a broad and accountable participation in the management and conservation of fisheries resources [section 10 (d)]; Each fishery management plan shall devise management and development strategies to be adopted for each fishery, including the use of community-based management [section 12 (3) (c)]; The Minister is empowered to create Fishery Management Boards in respect of fishery management areas [section 18 (1)]; One of the functions of Fishery Management Boards is to facilitate the involvement of local stakeholders in fisheries management [section 18 (2) (d)]; The</p>	<p>Exclusive fishing rights may be granted to any person, including fishers associations (articles 20 and 21).</p>	<p>Establishment of regional fisheries committees (article 8); Exclusive fishing rights may be granted to any person (article 30). The draft law does not explicitly mention that such rights may be granted to fishers associations.</p>

	Minister is empowered to establish and regulate community-based fisheries management schemes [section 52 (1) (k)].		
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