

Chapter V

GOVERNANCE AND INSTITUTIONAL FRAMEWORKS

FISHERIES ADMINISTRATION

In 2006, the catastrophic state of the country's fisheries sector led the Parliament to reinstitute the DOF under the MAWRPI. The mandate of the new department is to develop and manage the fisheries sector in its widest meaning in accordance with the 1997 Fishery Law. The DOF establishes the rules and conditions under which fish are caught, bred and stocked. The DOF is currently financed exclusively from the national budget. The national programme for fisheries until 2012 was developed and submitted to the Government of the Kyrgyz Republic for its approval. It is currently undergoing a process of government approval. The total budget of the programme is expected to be some 50 million (about US\$1.4 million for a period of five years). It will be financed through government investment.

Licences for commercial fishing in major reservoirs and lakes are issued by the State Agency on Environment Protection and Forestry, which collects the fees for these licences.

The Hunting and Fishing Union (HFU) is in charge of recreational and small-scale fisheries in rivers and smaller waterbodies.

Compliance with laws and regulations is monitored by the Fisheries Inspection Service of the DOF. In each region, the inspectorate is represented by a head and several fishing inspectors. Limited financial resources for the activities of the inspectorate as well as for the payment of the salaries of staff are a great concern and reduce the work undertaken by the inspectorate. Currently, part of the salaries of the inspectors is covered through the sale of confiscated catches and equipment (of which the inspectors receive 30 percent).

The Fisheries Research Centre is situated in the Issyk Kul region, in the Biological Station of the National Academy of Science. Its functions are scientific research and fish stock assessment studies.

Registration and monitoring of the fish farms are also among the responsibilities of the DOF. Apart from the Ton hatchery (on the southern shores of Lake Issyk Kul), Uzgenski fish farm (in the south) and Talasski fish farm (Talas Oblast), which still are subsidized by the state, all fish farms are now privatized.

FISHERY RESEARCH, TRAINING AND EXTENSION

Some fishery or aquaculture research has been carried out in the country in the last 15 years, but the financial resources available have been very limited. The National Academy of Science has an ichthyology laboratory, inherited from the Soviet era, but it is not operating owing to the absence of financial resources. In addition, the DOF, through an agreement with the National Academy of Science, established a fisheries research centre in 2001, but it has never functioned owing to the same problem.

Some limited fisheries research is being conducted by the ichthyologists and hydrobiologists of the Lake Issyk Kul Biological Station of the Institute of Biology of the National Academy of Science, the Fisheries Research Centre and the Department of Zoology of the Kyrgyz State National University. The funding of research projects is very limited as research projects are supported by state funding. No international-donor-funded projects are currently supporting research in the sector.

Education in fishery and aquaculture subjects (mainly ichthyology and aquatic biology) is taught at the following colleges, institutes and universities:

- Department of Biology, Kyrgyz State National University;
- Institute of Ecology and Nature Management, Kyrgyz University of I. Arabaev;
- Department of Ecology, Kyrgyz Agriculture Academy;
- Department of Biology, Karakol University;
- Department of Fishery, Kyrgyz Agriculture Technical School.

However, the number of students is very small and no fully-fledged aquaculture or fishery management capacity building programmes are available at present.

The students of these colleges, institutes and universities who study ichthyology and hydrobiology (5–10 persons at the department) prepare term and diploma papers on some topics of fishery and ichthyology. Subjects also include fish-breeding and capture fisheries technologies. However, the main focus is on methods of restoring fish stocks through culture-based enhancements, and on issues of biodiversity conservation and the reasonable use of fish stocks. Annually, a practical training course is organized at the Lake Issyk Kul Biological Station of the National Academy of Science.

FISHERY STATISTICS

The DOF collects information on, and analyses the fish catch in, all reservoirs and lakes of Kyrgyzstan on a quarterly basis. However, the DOF relies largely on the fishing companies own reports on the amount of fish caught. Similarly, for aquaculture, registered companies are obliged to report their production to the DOF. No active fishery and aquaculture data collection, through field visits and surveys, is being undertaken by the DOF as financial and human resources are limited.

Based on the statistics collected, the DOF prepares a report for the National Statistics Committee of the Kyrgyz Republic according to the “Form 28 Fish” on a quarterly basis. The National Statistics Committee reports annually to FAO, which incorporates the data provided in its database.

FISHERIES-RELATED ASSOCIATIONS

The Hunting and Fishing Union

Kyrgyzohotrybolovsoyuz, the HFU, is the only national-level organization that brings together hunters and recreational and small-scale fishers. Its members pay an annual membership fee of som200 (about US\$5.50). In return, they receive the right to fish as amateurs and for recreation. Other people can buy a day licence.

The HFU brings together 335 organizations. In 2007, it had 23 656 members throughout the country. The association also issued 2 523 one-day licences in that year. The fish catch in the waterbodies managed by the HFU is regulated by the Rules of Amateur and Sport Fishing in the Reservoirs of Kyrgyzstan and the Regulations of Amateur and Sport Fishing. These specify the quantity and size of fish allowed and the fishing gear permitted. Most rules date back to the time of the former USSR. The proceeds from the sale of licences are used for paying wages to fishing inspectors, for stocking fish in reservoirs, and for financing various nature conservation measures.

Kyrgyz Association of Pisciculturists

The Kyrgyz Association of Pisciculturists, Balyk Resources, was founded in May 2007 as a voluntary union of legal entities with the objective to coordinate the activities and protect the

interests of fish farms and their members, and to provide legal, informational and other services to the members. It is led by a supervisory board elected by the general assembly of the association by a simple majority of votes of the members present. Annex 4 presents the charter of the association.

Chapter VI

POLICY, REGULATORY AND MANAGEMENT FRAMEWORKS

POLICIES AND PLANNING

In 2007, the DOF started preparing the “Strategy for fisheries and aquaculture sector development and management in the Kyrgyz Republic (2008–2012)”. This strategy provides an outline for the development of the sector up to and including 2012. It was prepared by the DOF and representatives of many fisheries and aquaculture sector stakeholder groups, with support from the European Commission (EC) and FAO under the Project EC/FAO Facility GCP/GLO/162/EC – Kyrgyzstan “Development of inland fisheries and aquaculture in the Kyrgyz Republic to reduce rural food insecurity”.

The strategy was the subject of an intensive and complex policy development and planning process. It included: recognition of the need for policy development; adoption of a process approach; the current review study of the sector and consultations; and discussions with all relevant fisheries and aquaculture sector stakeholders. The strategy was approved by Minister A. Nogoyev on 25 February 2008, and the director of the DOF was instructed to head its implementation.

As stated in the strategy, the development objectives are:

- Review and update fishery legislation to introduce reforms enabling modern fishery and aquaculture management and development.
- Ensure the protection and responsible management of fishery resources.
- Ensure the implementation and further development of the restocking programme.
- Develop diversified and multipurpose fisheries and aquaculture enterprises.
- Improve the market supply chain and processing of fishery products, and ensure the safety and quality of these products.

The DOF also developed the Fishery Development Programme for 2007–2010, which details its own work plan for this period and accounts, with limited funding from the ministry budget.

On 6 December 2005, the Government of Kyrgyzstan approved a decision to remit the value added tax (VAT) on imports of equipment for fish processing.

In November 2007, several normative acts regulating the introduction of new fish species in reservoirs (in order to prevent damage from further species introductions) were submitted to the Government for approval. They are currently under consideration.

Under the Ramsar **Convention on Wetlands**, Lake Issyk Kul was included in the wetlands of special importance of the former USSR in 1975. The territory of the reserve was enlarged in 1986. Some areas of the lake of particular importance for natural fish reproduction have been designated protected areas.

LEGAL AND REGULATORY FRAMEWORK

In chronological order, the relevant laws and regulations for capture fisheries and aquaculture in Kyrgyzstan are:

- Veterinary Law of the Kyrgyz Republic, 6 March 1992, No. 805–XII.
- Law KR “On Natural Areas of Preferential Protection”, 28 May 1994, No. 1561–XII:
 - The law regulates relations in the organization, protection and use of protected natural areas in order to conserve common and unique natural environments and objects, genetic

bases of flora and fauna, and the assessment of natural processes in the environment and monitoring of changes. An example of an important article for the fisheries sector in this law can be found in Article 3, which states that biosphere territories or reserves are areas of water and ecological systems providing a sustainable balance of ecological and landscape diversity.

- The decision of the Government of the Kyrgyz Republic on the national plan of the Kyrgyz Republic on nature preservation, 29 January 1996, No. 43.
- The Fishery Law, 1997:
 - This law (Annex 5), and the amendments to it (1998), can be considered as the main body of the legislative framework for the fisheries sector in the country. However, the law and the amendments do not address all aquaculture matters typically considered in similar legislation worldwide, nor do they consider transboundary issues related to migration of fish. The legislation needs to be updated to bring it into line with the FAO Code of Conduct for Responsible Fisheries and other international standards.
 - An important article is Article 17 of the law, which regulates the introduction of new species into the waterbodies of the country: “Acclimatization of specific species of fish in fish farming reservoirs of Kyrgyzstan, putting in new species of fish into these reservoirs shall be allowed only where there is the scientific justification and approval of the government veterinary service.”
- Law KR “On Environmental Assessment” 13 May 1999, No. 53:
 - This law is important for fisheries as it regulates environmental assessment issues and aims to prevent negative ecological implications as a result of business or other activities (including fisheries).
- Law KR “On Biosphere Territories” 9 June 1999, No. 48:
 - Important articles for the fisheries and aquaculture sector are Articles 2 and 5. Article 2 states that biosphere territories are areas of land and water ecological systems providing a sustainable balance of biological diversity. According to Article 5, the introduction (acclimatization) of new species of plants and animals is prohibited in buffer zones.
- Law KR “On Fauna” 17 June 1999, No. 59:
 - Article 15 relates to the prohibition of import of animals that can harm natural biocenoses. Article 24 mentions that the unwarranted transfer, acclimatization and hybridization of fauna is prohibited. Article 29 mentions the deterioration of the ecological state of the fauna and environment. These three articles can affect the development of fisheries and aquaculture in the country.
 - Article 34 describes capture fisheries as follows: “The fishery is done through commercial catch of fish and water invertebrates, as well as recreational fishing in fishery waters. Relations in fishery, protection of fish resources and water invertebrates are regulated by correspondent legislation of KR”.
 - The referred-to relations are poorly regulated because the legal basis is presented only in the law “On Fishery”, which is already out of date.
- Law KR “On Environmental protection” 4 February 2002, No. 22 – Articles 13, 16, 18 and 44:
 - Article 13 provides that limits on exploitation of natural resources be established by the authorized body on environmental protection in accordance with standard volumes of natural resources exploitation. Article 16 mentions that environmental assessment is to be conducted with the aim of preventing a possible negative impact from planned business activities or other activity on environment. Article 18 stipulates that exploitation

of hydroelectric stations should be done in accordance with the requirements on fish resources protection, and should prevent negative impacts on the environment. Article 44 prohibits the release, production, and introduction of animals and plants that can cause damage to fauna and flora.

- The Steady Development of Ecologic and Economic System of Lake Issyk Kul, Law of 13 August 2004, No. 115.
- The Water Code of KR, 12 January 2005:
 - Article 21 of the Water Code states that “use of water resources includes use of water for fishery and aquaculture”. Article 23 establishes that “among activities requiring a water use licence, pond utilization or water accumulation for fishery and aquaculture or other business activities are also included.” Licences are granted for 15 years by the State Water Administration. Article 24 mentions that use for fishery and aquaculture purposes is included in the list of priority water usages.

INTERNATIONAL CONVENTIONS

Kyrgyzstan is currently not a party to any international agreement that deals specifically with fisheries. However, the country has signed a number of agreements that are concerned with biodiversity in the broader sense and also involve the aquatic environment:

- World Heritage Convention: UNESCO Convention on the Protection of the World’s Cultural and Natural Heritage (accepted in 1995). Six sites have been nominated (including Issyk Kul), but none based on its value as natural heritage.
- Convention on Biological Diversity (CBD): Kyrgyzstan joined the CBD in 1996. The country received funding from the Global Environment Facility (GEF) to prepare its Biodiversity Strategy and Action Plan in 1998 (Ministry of Environmental Protection, 1998). The strategy included an integrated action plan for conserving biodiversity (outlining mechanisms to deal with current issues regarding the protection and sustainable use of natural resources) and provided precise details, time scales, budgets and targets. The objectives included:
 - to restore and conserve threatened species (inter alia seven species of fish), ecosystems and landscapes;
 - to increase protected areas to 4.8 percent of the territory;
 - to reduce pollution;
 - to improve ecological legislation by 2003;
 - to improve public awareness on environmental issues;
 - to enhance public institutions and non-governmental organizations (NGOs) through capacity building;
 - to attract internal and external investors;
 - to assist in the conservation and sustainable use of biodiversity while implementing a poverty reduction programme.
- Ramsar Convention on Wetlands: Its mission is: “the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world.” One of the obligations of the signatories is to designate at least one wetland to be included in the “Ramsar List” and to “promote its conservation, and wise use.” The selection of wetlands for the Ramsar List should be based on its significance in terms of ecology, botany, zoology, limnology or hydrology. Kyrgyzstan effectively joined the Ramsar Convention in 2003 and designated Lake Issyk Kul as a Ramsar Site in 2002. Lake Issyk Kul was already recorded as a Montreux Record in 1990, before independence, and discussions are underway with

Kyrgyz authorities about its present status vis-à-vis the Montreux Record. Lake Chatyr Kul was designated as the second Ramsar site in the country in 2005.

- The Cartagena Protocol: Kyrgyzstan ratified the Cartagena Protocol on biosafety in 2005. The protocol seeks to protect biological diversity from the risks posed by organisms modified by modern biotechnology. The protocol states that it shall apply to the transboundary movement, transit, handling and use of all living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account also risks to human health.

Although Kyrgyzstan has ratified more than ten international conventions on environmental protection, they are all of a declarative character as there are no national laws and regulations for their implementation, particularly in relation to the fisheries development. Kyrgyzstan has produced a significant number environmental laws and regulations, but weak enforcement, low capacity among responsible government institutions, and funding shortages remain serious constraints for the protection and sound management of the country's natural resources and the safeguarding of environmental quality (ADB, 2004).

There is a need to “mainstream” environmental considerations into government policies and programming (ADB, 2004). The international agreements already signed by the country may give the DOF the opportunity to press for the incorporation of sound environmental and natural resources management into the legislation.

The United Nations Environment Programme (UNEP) details on its Web site that multilateral environmental agreements can be incorporated into national law by re-enactment or reference. Incorporation by re-enactment means that international law is implemented through development of a detailed national law. Incorporation by reference means that national laws ensure compliance with an international agreement by referring to it, without “translating” all details in the national law.

REGIONAL AGREEMENTS

In the period 1992–2006, more than 15 interstate, intergovernmental and interministerial agreements on the conservation and use of water resources were signed by officials of Central Asian countries. In these agreements, the value of water as a regional ecoresource and its importance for irrigation purposes is highlighted, but nothing is said about its role in aquaculture or as an environment for fish. At regional level, there are no practical measures in place for the protection and sustainable use of fishery resources. This relates to the fact that there are no major lakes or reservoirs that are shared between Kyrgyzstan and any of its neighbouring countries, and no important commercial fisheries on any of the rivers. Therefore, inland fisheries are considered internal matters and of concern only to the state itself. However, there are migratory fish stocks in shared rivers. Kyrgyzstan is situated in the Aral Sea catchment area, and as an upstream country, it has a responsibility not to act in a way that may damage biodiversity and fisheries further downstream.

Regional agreements of relevance to fisheries include:

- The agreement between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan on collaboration in the field of biodiversity preservation of the western Tian-Shan (17 March 1998, Bishkek).
- The agreement between the Governments of Kazakhstan and Uzbekistan on collaboration in the field of nature preservation and reasonable nature management (17 March 1998).
- The agreement on collaboration in the field of nature preservation (Almaty Declaration of Central Asia Presidents, 1997).

- Tashkent Declaration of the Special UN Programme for Central Asia, 1998.
- Agreement on Cooperation in Joint Management, Use and Protection of Interstate Sources of Water Resources. This agreement was signed between Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan in 1992. It deals with the collaboration in the field of the collateral use and preservation of interstate water resources. In 1993, the countries formed the Interstate Commission for Water Coordination (ICWC) of Central Asia.
- The Commonwealth of Independent States (CIS) Agreement on rational management and protection of transboundary waterbodies between Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. This agreement was signed on 11 September 1998. The treaty covers all transboundary waterbodies that delimit, cross or are located within the boundaries of two or more parties and is valid for ten years. Article 8 concerns fish and reads: “The Parties shall carry out arrangements for the protection of young fish by installing fish protection works.”
- The Chu and Talas Commission: Kazakhstan and Kyrgyzstan signed the bilateral agreement on “The Commission of the Republic of Kazakhstan and Kyrgyzstan on the Use of Water Management Facilities of Intergovernmental Status on the Rivers Chu and Talas” in 2000. The commission coordinates maintenance and use of water management infrastructure on the Chu and Talas rivers. The agreement obliges Kazakhstan to pay part of the operating and maintenance expenses for Kyrgyz dams and reservoirs in the two basins.

FISHERY MANAGEMENT

Management

There are no detailed fishery management plans in place for any waterbody in Kyrgyzstan. Stocking and catch plans are made by private companies together with the DOF, but these cannot be considered management plans as they do not contain the main management options and tools, and they were made without the involvement of the other waterbody users. Community-based management of fishery resources is non-existent in the country.

As in Soviet times, capture fishery in Kyrgyzstan relies largely on the stocking of fingerlings, as natural reproduction of valuable fish species is limited. However, while in the past the state was responsible for both the stocking and catching of fish, these practices have been transferred almost entirely to the private sector. Private-sector companies that have leased certain waterbodies for fisheries and aquaculture purposes are obliged to stock these waters as well. However, there is little control as to whether these companies are complying with this obligation. In addition, short-term lease contracts have until recently discouraged sustainable stocking and management of the resources by the private sector.

The enterprises that lease fishing rights in Lake Issyk Kul are required to conclude agreements with the DOF on the production of fry and fingerlings for restocking during the spawning period (October–December). Based on the agreed number of fry to be produced, the DOF prepares a plan for stocking in the various sectors of the lake and determines the catch quotas. The private-sector companies have to provide documentation on both fish catches and reproduction activities to the DOF.

The collapse of the fishery in Lake Issyk Kul led to the implementation of a moratorium on fishing in 2004. However, the fishery for broodfish is still carried out so that the fishing companies can artificially reproduce and stock whitefish, syrok and trout in the lake. A similar ban was imposed in Lake Son Kul in 2006.

To restore fish stocks to a level that can again be exploited commercially, it has been calculated that it would be necessary to prohibit the catch of all fish except pikeperch and bream for 3–

5 years. Such a period would be sufficient for endemic species with a short life cycle, such as ide and moroco, to restore their populations through natural reproduction.

However, the stocks of the larger and slower growing species (Issyk Kul naked osman, marinka, whitefish and sazan) have been depleted. This makes it necessary for natural reproduction to be supplemented with the stocking of several million eggs or fry annually in order to rebuild their populations.

Licences and quotas

Since 2004, the licences for commercial capture fisheries and for catching broodfish for artificial reproduction and stocking in the major reservoirs and lakes of Kyrgyzstan have been issued by the State Agency on Environment Protection and Forestry. The management (meaning stocking in its narrow meaning) and conservation of fish stocks in these lakes and reservoirs is the responsibility of the Fisheries Inspection Service of the DOF regardless of the form of property.

With support from the National Academy of Science and the State Agency on Environment Protection and Forestry, the DOF determines the total allowable catches (TACs) for each species of fish. Stock sizes are assessed through experimental fishing. However, owing to the lack of financial resources for this purpose, it has not been possible to conduct field surveys every year, and in such cases, estimations have been made based on earlier assessments and survey results from similar waterbodies.

The proposed TACs are presented to the Scientific Production Council (also called the Fisheries Board) for its consideration and the development of recommendations. The council consists of the representatives of the National Academy of Science, the State Agency on Environment Protection and Forestry, and the heads of fishing companies. The fish-breeding, fishing and processing division of the DOF then allocates the determined TACs as quotas among the various fishing companies, signs lease agreements on fishing regions, and issues fishing licences. The fishing companies that receive a quota are obliged to stock the waterbodies each year.

The State Agency on Environment Protection and Forestry manages the smaller waterbodies. For these waterbodies, the Kyrgyzohotrybolovsoyuz, with the help of scientists of the National Academy of Science, determines the catch quotas.

Enforcement

As mentioned above, the lack of financial resources allocated for fisheries inspection has seriously constrained the enforcement of the fisheries law in the country. Therefore, the DOF decided that fisheries inspectors would receive 30 percent of the catch and sale of equipment they confiscated from poachers, and that no uniform or transportation would be provided by the DOF. Under these conditions, 40 inspectors were appointed: 20 at Lake Issyk Kul, 7 at Lake Son Kul, and the rest in the south and west of the country. While this approach encourages inspectors to catch illegal fishers, it may also tempt them to make “alternative arrangements” with offenders. In their defence, it is difficult for inspectors to keep up with the poachers, some of whom possess much more modern equipment than the inspectors, including good binoculars, night vision equipment and modern speedboats, while the inspectors have rowing boats. There are also reports of violent encounters between poachers and inspectors (Rakhimdinova, 2005).

Where private-sector enterprises have fishing concessions, illegal fishing and illegally placed gear is often reported to the fisheries inspectors, and controls and monitoring of rules and regulations are more frequent and more effective.

Chapter VII

SOCIAL AND ECONOMIC ASPECTS OF FISHERIES AND AQUACULTURE

EMPLOYMENT

In Soviet times, up to 1 000 people worked in the fisheries sector. When the sector collapsed after independence, this number fell to 72 people in the early years of this century. However, the establishment of the new private-sector enterprises and an increased interest in aquaculture from private-sector small-scale farmers has meant that since 2007 the total number of people working in the fish sector has increased to 396 (Tables 16 and 17). The limited number of people involved in the commercial capture fisheries is a consequence of declining fish stocks and the moratorium on the Issyk Kul and Son Kul lakes for the period of 2004–2010.

Both state and private farms hire additional fishers who work on a seasonal basis.

TABLE 16
Employment in fisheries-related sectors in Kyrgyzstan, 2007

Staff	DOF		Research institutes, universities	Lake & pond reproduction & fishery	Lakes & reservoirs (commercial fishery)	Sport & recreational fishery	Marketing & distribution of fish
	Central staff	Structural subdivision					
Men							
Full-time	7	53	5	175	43	37	5
Part-time	0	0	4	2	0	0	-
Women							
Full-time	4	7	2	29	0	8	13
Part-time	1	0	1	0	0	0	0
Total state sector	12	60	12	74	24	5	0
Total private sector	0	0	0	132	19	40	18

TABLE 17
Employment at some of the larger fish farms and for fishing companies in Kyrgyzstan, 2007

Name	Oblast	People employed
Balykchylar Ltd.	Issyk Kul	15
Karakol Balygy Ltd.	Issyk Kul	5
Ton hatchery	Issyk Kul	8
Eleman-Kol Ltd.	Issyk Kul	6
Cholpon-Ata Balygy	Issyk Kul	10
Issyk Kul	Issyk Kul	10
Presidents Adm. of the K.R.	Issyk Kul	11
Dolon	Issyk Kul	5
Uzgen fish farm	Osh	15
Talas	Talas	10
Son Kul	Naryn	5
Bazar-Korgon fish farm	Djalal-Abad	5
Uch-Terek	Djalal-Abad	10
Toktogul fish farm	Djalal-Abad	10

Note: Small-scale companies / family enterprises are not included.

SOCIAL SECURITY OF FISHERFOLK, AQUACULTURISTS AND OTHERS ENGAGED IN THE SECTOR

State-owned

The state fishing companies and the fish-breeding plants supported by the state budget have obligatory social insurance and pension allocations. For all workers with health insurance cards, contributions (corresponding to 8 percent of their salaries) are made to the Social Fund.

The DOF provides its employees with quarterly one-time payments, bonuses, and benefits valued at som187 560 (about US\$5 200, or 30.3 percent of the annual wage fund established for employees of central government offices). The working pensioners at the DOF receive, in addition to their salary, monthly pensions of som1 800–2 000 (about US\$53). No other social support is provided to DOF employees.

The Ton hatchery provides the same social support as the DOF for its staff. In addition, there are payments for its workers for health hazards and to cover the specific working conditions in the field, allowing for additional purchases of food, which was som60 000 (about US\$1 670) in 2007 and som29 300 (about US\$815) for the first nine months of 2007. In 2006, contributions to the Social Fund totalled som56 300 (about US\$1 565), and som39 600 (about US\$1 100) for the first nine months of 2007.

The Uzgen fish farm contributes 29 percent of the wage fund to the social insurance fund. In 2006, it contributed som93 900 (about US\$2 600), and som83 000 (about US\$2 300) for the first nine months of 2007. The farm also provides transportation for its employees' children to school and back, which cost the farm about som36 000 (about US\$1 000) in 2006, and som21 100 (about US\$585) for the first nine months of 2007. Most fish farms that are related to the DOF (Son Kul, Toktogul, Bazar-Korgon, and Talas), as well as the Uzgen fish farm, make payments to the social insurance fund of about 29 percent from the total wages.

The Research Institute on Biology and Soil of the National Academy of Science of the Kyrgyz Republic and its biological station, as well as other state enterprises and organizations, make monthly contributions to the social insurance fund of 29 percent from the total wages of each scientific worker.

Private sector

Social security and insurance arrangements for fisherfolk in the private sector depend on the terms of agreement signed by the fisherfolk and their employers. The latter are generally those who lease the reservoirs, or the owners of reservoirs and their parts. In general, the employers contribute to a social insurance and pension fund.

ECONOMICS OF FISHERIES AND AQUACULTURE

State-owned companies

The state hatcheries used to pay 20 percent VAT and 15 percent of customs duty on imports of fish-breeding material and feed.

On 6 December 2005, the Government of Kyrgyzstan issued Resolution No. 554 under which fish-farming subjects that import fish-processing equipment are be exempted from VAT.

All state employees receive their salary according to the official salary scale, and they pay 10 percent income tax and contribute 8 percent to the pension fund.

Funds from the state budget are being provided only to the Ton hatchery. The Ton hatchery has received the following funds:

- som422 700 (about US\$11 740) in 2005;
- som665 500 (about US\$18 485) in 2006;
- som511 600 (about US\$14 210) in 2007.

Other state hatcheries are self-supporting and do not receive contributions/support from the state budget.

Private sector

Private-sector fishing and aquaculture companies are obliged to pay a variety of taxes, including VAT, land tax, water tax and custom charges.

The private-sector companies control their budgets independently, and the salaries of their employees are generally higher than those of public-sector employees. Some companies let wages depend on the income and profit made.

CREDIT AND INVESTMENT IN FISHERIES AND AQUACULTURE

In recent years, fisheries-sector companies in Kyrgyzstan have had limited access to credits, loans, insurance and (foreign) investment services. A few private fish entrepreneurs (e.g. Kolpoch Company Ltd.) have managed to obtain small, short-term bank loans for the production of commercial high-value fish. Although many banks and financial organizations are active in Kyrgyzstan, and microfinance tools for agriculture are well developed, microfinance and rural credit arrangements for the fisheries sector are still lacking. The main reason for the limited access of the sector to credit lines is that banks believe that the risks involved in investments in fisheries are too high compared with the rates of return made in fisheries.

The small-scale farm Abyl plans to increase internal investments to US\$20 000 in the near future. This amount will be spent on equipment, pontoons, cages and other expenditures related to the establishment of cage farm production systems for the production of rainbow trout.

The private-sector company New-Tek Ltd. invested som701 000 (about US\$19 470) in the Ton hatchery in 2007, including som441 000 (about US\$12 250) in equipment, and som260 000 (about US\$7 220) for the construction of the base and walls of a laboratory for growing fingerlings. It is planning to invest a total of som3.5 million (about US\$100 000) in the reconstruction of the Ton hatchery and the reproduction of fish stock of Lake Issyk Kul in the period 2007–2012.

The DOF has requested the MAWRPI to invest som40 million (about US\$1.1 million) in the development of fishery infrastructure, reproduction of high-value fish species, and nature preservation. However, this funding has not been allocated.

The MAWRPI has submitted official requests for financial and technical assistance to a number of donor countries, including Japan, Turkey, various CIS countries, and international organizations such as FAO and the EC. An agreement on the rehabilitation of the Ton hatchery is being discussed with the Turkish International Cooperation and Development Agency (TIKA).

THE ROLE OF FISHERIES AND AQUACULTURE IN FOOD SECURITY AND POVERTY ALLEVIATION

In 2005, the poverty level in Kyrgyzstan was 43.1 percent (Annex 6), and 11.1 percent of people were considered extremely poor. The poverty level was highest in rural areas (51 percent), where two-thirds of the Kyrgyz population live. Among the oblasts, poverty exceeds 50 percent in Batken, Issyk Kul, Jalal-Abad, Osh and Naryn, while the poverty level in Bishkek, Chui and Talas oblasts is 11, 22 and 44 percent, respectively. From 2000 to 2005, the incidence of poverty declined, in spite of the moderate economic growth rate, mainly owing to an expansion in production sectors using low-paid labour as well as an increase in state pensions, social payments and cash remittances.

The most important source of livelihoods for the Kyrgyz people is agriculture. Locally, there are areas where fisheries are important for the rural economy and the livelihoods of the rural communities. A significant number of fisher families can be found around Lake Issyk Kul Lake, fewer at the Son Kul and Kara-Suu lakes and the Toktogul, Orto-Tokoi, Kirov reservoirs, and also some at the Bazar-Korgon reservoir.

The incidence of poverty has also led to an increase in subsistence and/or recreational fishing. It is difficult to distinguish between these two fishing purposes as many recreational fishers also

catch fish to support their households. Subsistence and recreational fishing is a widespread activity in the rivers of Chui Oblast and in some parts of Naryn Oblast.

Many people are also involved in the retail and distribution of fish, which is mainly concentrated in the Bishkek, Chui and Issyk Kul oblasts.

However, at national level, the importance of fisheries as a sector that contributes to national food security and poverty reduction is low. One reason for this is the decline in fish stocks and the moratorium on commercial fish catches in the Issyk Kul and Son Kul lakes. These factors have further reduced the role played by fisheries. On the other hand, the private-sector aquaculture farms that have started to expand around the country not only facilitate access to fish proteins for the Kyrgyz population, they also create the much-needed alternative employment opportunities in the rural areas. From this point of view, the current trend in aquaculture development should receive full support from the government.

The role of the fisheries sector in the future reduction of rural poverty will to a large extent depend on the country's ability to attract investment from domestic and foreign sources. This will mainly depend on whether a stable political and economic environment can be provided.

FISHERY AND BIODIVERSITY CONSERVATION PROJECTS IN KYRGYZSTAN

The recent project of the EC and FAO – GCP/GLO/162/EC – Kyrgyzstan “Development of inland fisheries and aquaculture in the Kyrgyz Republic to reduce rural food insecurity” was the first foreign-donor-funded project to address some of the needs of the Kyrgyz fisheries sector since independence in 1991. This review study was one of the activities carried out with support of this project (cost: US\$124 000) implemented between July 2007 and March 2008.

As at April 2008, there are two donor-funded fisheries-sector projects in the pipeline. The first project is aimed at rehabilitation of the Ton hatchery. The TIKA has been approached for financial support to this project (above). The second project is under formulation and is provisionally titled: “Support to Fishery and Aquaculture Management in the Kyrgyz Republic”. No donor has yet been approached officially for this project.

Kyrgyzstan participates in many transboundary (Central Asian) projects on water resources management (e.g. projects on conservation of the Aral Sea, and integrated management of water resources in the Fergana Valley), but most of these consider the allocation of water for irrigation, ignoring biodiversity issues and services provided by aquatic ecosystems (including fisheries and aquaculture).

Projects with some relationship to the fisheries and aquaculture sector are:

- Central Asia Transboundary Project of Global Environment Facility/World Bank and the preservation of biodiversity of the western Tian-Shan (Kazakhstan, Kyrgyzstan and Uzbekistan) (2000–06);
- the Euron-Aid Project on the preservation of biodiversity of the western Tian-Shan (Kazakhstan, Kyrgyzstan and Uzbekistan) – the financial support is from the European Union (EU) (technical assistance for the CIS) (2000–05);
- the GEF–UNEP–WWF Project “The creation of long-term preservation of biodiversity in the ecosystems of Central Asia” (2003–06);
- the FAO project on reconsideration and harmonization of the legislation on specially protected territories and conservation of biodiversity in Kazakhstan, Kyrgyzstan and Uzbekistan (2005–06);
- the project of the Gesellschaft für Technische Zusammenarbeit (German development agency – GTZ) on the biosphere territory of Lake Issyk Kul (since 1997);
- Financing from the United Nations Development Programme (UNDP) for the conservation of biodiversity of endemic fish species in Lake Issyk Kul is awaited.

Chapter VIII

SECTORAL DIAGNOSIS

In June 2007, the DOF organized a participatory meeting at the MAWRPI to diagnose the situation in the fisheries sector of Kyrgyzstan. A so-called “strengths, weaknesses, opportunities, threats” (SWOT) analysis was used for this diagnosis as this tool is commonly used to analyse a situation, create understanding and assist future decision-making processes in a simple manner. Moreover, it is widely used in fisheries-sector policy and strategy development. The following sections present the outcomes of the meeting and provide some clear entry points for policy development and planning activities carried out by the MAWRPI.

STRENGTHS

Kyrgyzstan has a favourable climate and suitable natural conditions for certain fisheries and aquaculture activities, allowing it to develop highly profitable lake and pond culture practices. A long summer, a favourable temperature for cold-water fish, the salinity of water, the concentration of hydrogen ions, insolation and other hydrological conditions, and a good natural nutrition base (phytoplankton and benthos) in most lakes and rivers all contribute to the suitability of the country for increasing the surface area of ponds, enhancing lake exploitation, and using capture fisheries capacity more fully. The availability of water resources is considerable, particularly owing to the Issyk Kul, Son Kul and Kara-Suu lakes, several large impoundments (such as Toktogul, Bazarkorgon, Ortotokoy and Kirov), and hundreds of hectares of ponds. In 1991, the total volume of fish produced (by catch and culture) exceeded 1 400 tonnes. In 2006, the officially reported fish production was 71.4 tonnes in 2006.

In the time of the former USSR, the production and breeding potential was developed and a technical base (in terms of human capacity) was established for pond culture (Chui, Uzgen and Talas plants) to cover all regions of the country. The Ton and Karakol fishing plants and 15 private commercial fishing plants were built and functioned properly.

Kyrgyzstan has the capacity to provide fry and fingerlings for restocking the lakes and reservoirs. Recently, some 623 000 trout fingerlings, 13.5 million whitefish fingerlings and 2.5 million small carp have been introduced into Lake Issyk Kul; 4.1 million syrok fingerlings have been introduced into Lake Son Kul; and 635 000 young fish have been introduced into the drainage reservoirs and various pond systems. In 2005, the hatcheries produced inter alia 26 million whitefish eggs and 6.6 million syrok eggs. Two million whitefish eggs were produced for Lake Issyk Kul, and these were incubated at the Ton, Karakolbalygy Ltd. and Balykchylar hatcheries. Fishery reservoirs were stocked with 9.3 million small syrok, whitefish, carp and trout, which is about 3 million more than in previous years. Since 2004, there has been a moratorium on fish catch in the Issyk Kul and Son Kul lakes, which will be in place until 2008. However, some catches in these lakes have been made for fish reproduction purposes.

There is investor interest. One company has built two trout production systems of 150 tonnes a year at Lake Issyk Kul, with support from other investors. The sale of the cultured trout has begun, and two more production systems have been constructed. It is planned to set up 10 cage systems in the next 2 years and to produce about 1 000 tonnes of fish annually.

The legal basis for fisheries has been established. The Fishery Law (Government of the Kyrgyz Republic, 1997), Fauna Law (1999) and Nature Preservation Law (1999) were passed in

the 1990s. Fishery and biological norms and the rules for fish breeding in reservoirs have been prepared and ratified. The following bills are currently with the Government for approval:

- “Amendments and Additions of the Fishery Law envisaging the regulation of licence issuing for the catching and breeding of fish”.
- “Programme for fishery development of the Republic 2007–2016”. This programme is the internal programme of the DOF and aims to increase budget allocation from the central budget for the work of the department in support of the fisheries sector.

An institutional base is available in support of the fisheries sector. A decision of the Government of Kyrgyzstan created the DOF of the MAWRPI. In 2006, the DOF was ratified within the new structure of the MAWRPI. The Fishery Board of the DOF was also created. It includes members of the government, National Academy of Science, ministries and local authorities.

By the order of the President of Kyrgyzstan, the Republican Meeting on Fishery was held on 22 March 2007. The heads of regional state administrations, ministries and offices, scientists, businesspeople and NGOs took part. The problems of the sector were discussed and some decisions were made. Following item 9 of the Meeting Decisions, “the provision of reservoirs and fishing areas for long-term lease with the aim to culture fish and provide breeding material”, the government has started to lease out the fishing areas on a competitive basis – a decision announced in the mass media.

Sport and amateur fishing is regulated by the Kyrgyzohotrybolovsoyuz, which leases out the reservoirs that are of interest to recreational fishers.

In 2007, the Kyrgyz Association of Pisciculturists was created.

Fisheries inspectors were trained and certified in 2006. The capacity building and certification system was prepared by the National Academy of Science of Kyrgyzstan; training was held at Lake Issyk Kul.

The Issyk Kul region has been included in the world network of biosphere reserves. The order the Government of Kyrgyzstan ratified the creation of the Issyk Kul biosphere reserve in 1998. The objectives are to preserve Lake Issyk Kul as a unique natural environment and to maintain its biodiversity.

WEAKNESSES

The average consumption of fish is only 0.5–0.9 kg/capita per year. When taking into consideration the imports of fish from the neighbouring countries, the national fish production only provided for 0.01 kg/capita in 2006.

Poaching of fish is widespread. The number of such poachers is estimated at 500–1 000 in the Issyk Kul region, for a daily catch of about 10–50 kg. If 100 poachers catch an average of 25 kg of fish a day for 100 days in a year, then they will catch 250 tonnes, which is several times the official figure for production. According to information of the DOF, the catch of fish by recreational fishers is also important. It is estimated that no more than 100 recreational fishers fish once or twice per week, and that their catch averages 3.5 kg, or about 17 tonnes/year. In sum, illegal and unreported catches are estimated at more than 260 tonnes of fish a year. However, this figure is probably still conservative.

In 2006, more than 100 fishers were caught poaching and more than 1 000 nets were forfeited. However, the real extent of poaching is much larger as many poachers are not caught. It appears that some poachers are supported by the employees of the state bodies.

The increase in the cost of fishing licences cost (currently, som4 [about US\$0.11]) for 1 kg of fish) makes legal fishing practices less profitable.

The state fisheries companies and fish hatcheries are suffering from an acute shortage of finances. As a result, the state of the equipment used is poor, and the technical capacity of staff is

low. There are not enough transportation means, boats, boat engines and fish breeding equipment. It is estimated that some 2.0 million/year (about US\$56 000) is required in order to reproduce and preserve fishery resources, to conduct fish stock research in state reservoirs, and to build capacity for fish breeding and fishery biology. Fish culture (grow-out) facilities under state control are short of funding and unable to buy modern fish-breeding equipment, special compound feeds, etc.

The absence of a government scheme to finance the work of fishing inspectors constrains their protection activities.

The actions of the national government and regional authorities are poorly coordinated. In 2004–05, the Issyk Kul and Naryn regional state administrations accepted moratoria on predatory pikeperch and the cleaning of the Son Kul and Issyk Kul lakes from old nets without studying the state of these lakes and without taking into consideration scientific recommendations.

There are contradictions and ambiguities in normative legal acts that lead to the duplication of permissive control functions by the MAWRPI and the State Agency on Environment Protection and Forestry.

Inadequate management of fishery resources and variable efforts are main reasons for the reduction in fish catches. Fishery efforts have been distributed irregularly along Lake Issyk Kul and negatively affected the spawning and pre-spawning of fish in certain areas of the lake. Individual measures regulating the catch include the order of annual alternation between even-numbered and odd-numbered fishing areas (which was applied in the 1970s) and a complete moratorium on one of the areas (which transferred the efforts to others). As a result of an intensive fishery in some limited areas, the volume of certain stocks fell significantly (e.g. the Semenov stock of ide).

Irrational fishery in the spawning period broke the structure of fish stocks. For example, because of its fractional maturing, the males of Issyk Kul moroco stayed longer in the spawning areas. As a result, they were caught in larger volumes than females, causing alterations in normal sex ratios. A net with a mesh size of 17 mm (mostly used in the fishery) can catch fish of 12.5–14.5 cm. A comparison of fish age in moroco showed that mainly four-year-old fish were caught. Thus, the fishery was based on the catch of one age group. Consequently, an unfavourable year could cause an important reduction in stocks and catching plans for moroco.

Most poachers use bow nets with a mesh size of 14–16 mm. Hence, all fish longer than 11 cm are caught without distinction, including young and immature fish.

The introduction of Sevan trout into Lake Issyk Kul took place 75 years ago. There was no fishery of the species until 1971 because of its small stock. The largest trout catches were in the period 1975–1981, and they started to fall in 1985. However, the volume of young fish released into the lake by two hatcheries did not decline in those years. A main cause of the decrease is increased poaching. Poachers vigorously catch trout in the mouths of rivers, where they concentrate before and during the spawning periods. Another cause is the low quality of the released trout and the excessively small sizes of the released fingerlings (causing large mortality and slow growth). A third reason for reduced stocks of trout is the increased food competition with the more numerous zander species, particularly for main foods such as moroco and stone loach.

The installation of a hydropower plant/dam on the Jergalan River caused massive mortality among downstream-migrant young fish and mature fish. Some migrant species could no longer reach their natural spawning areas. Hence, some of the previously most abundant fish almost disappeared.

Non-observance of official fishery rules and catch quotas is constraining fisheries in Lake Son Kul in the fattening period. In this period, whitefish and *Coregonus peled* remain in the same habitats; whitefish aged from 1 to more than 5 years are caught in large numbers (as are *Coregonus peled*).

OPPORTUNITIES

Recently, some measures to attract investment to the sector have been introduced. Investors are exempted from VAT on imported fish-breeding equipment.

The outlook for construction of new (and rehabilitation of old) pond culture facilities is promising. The fish productivity of ponds is higher than that in lakes and impoundments. Using intensive culture methods in the conditions of the Chui Valley will make it possible to attain a production of 2 500–3 000 kg/hectare. Such productivity will allow the country to produce more than 1 000 tonnes of valuable marketable fish (a capacity comparable with the total estimated catch capacity of Lake Issyk Kul). To realize this potential, it is necessary to construct fish-feed-producing facilities, and to produce less-expensive feeds that are balanced in terms of protein, fats, vitamins, etc.

Provided that biotechnical standards are increased and that private investors are attracted, it is estimated that fish ponds can produce some 2 500 tonnes of marketable fish annually in the near future.

There are 3 500 rivers in Kyrgyzstan (including 15 large rivers), a range of small mountain lakes and irrigation systems in which fish breeding and catching is possible if the necessary investments are made. With proper investment support, it is possible to create highly-profitable cage culture facilities near the cascade of reservoirs on the Naryn River. It is also possible to establish trout farms in the mountainous areas of many rivers, where the water is rich in oxygen, clean, and ideal for trout reproduction.

The amendments and additions to the Fishery Law as they concern the functions of the various government entities, the ratification of the programme of fishery development of 2007–2010, and the recent establishment of the DOF will provide an opportunity to increase the governmental budget and to support investment in the sector. For example, under the programme, in 2007 it was possible to catch 108 tonnes, to introduce 18 million fingerlings into lakes and reservoirs, and to increase fish-pond production by 10 percent.

New fish monitoring and surveillance methods make it possible to measure stocks and efforts more accurately. Research will enable determination of the potential biomass of species and of feed availability in natural waters at different trophic levels. Virtual population analysis (VPA) is also possible, enabling determination of the number of individuals of any age group in the previous years of life and its initial mass to be established. Knowing the age of fish, it is not difficult to determine their total biomass. It is necessary to use the figures on mortality factors. The total allowable catch of many species can be now calculated.

The moratorium in the Issyk Kul and Son Kul lakes is still in force. When it ends, it is estimated that no more than 320 tonnes of fish can be caught in the lakes (65 tonnes of moroco, 130 tonnes of ide, 25 tonnes of trout, 40 tonnes of whitefish, and 10 tonnes of other fish). Special cases are pikeperch and bream, which can be caught without limitations.

The population of the Issyk Kul region will increase in the near future to up to 600 000 people, and the number of tourists will rise to 1.5 million people. This population will demand a supply of 7 000–13 000 tonnes of fish annually, which is much more than the present catch. According to various scientists, it is possible to increase the fish catch to 500–700 tonnes. Of that total, 300–400 tonnes would be caught by recreational fishers. Other scientists believe that removing the predatory fish would make it possible to restore production levels to those of the 1960s.

Capacity building and training programmes could be established relatively easily for fishery biologists and fish breeders at the Biology Department of the National University, or at the Arabev University Institute of Ecology and Nature Usage. The Kyrgyz Agricultural Academy (Ecology Department), Karakol University (Biology Department) and the Kyrgyz Agricultural College

(Fishery Department, with 5–10 specialists working at the department) are other possible training and capacity building institutions at national level. Field, practical-time/hands-on training can be organized annually at the Issyk Kul biological station of the Institute of Biology and Soil of the National Academy of Science.

THREATS

The mistakes made by artificially changing the ichthyofauna in waterbodies should not be repeated. In the last 50–70 years, serious changes have taken place in the relationships between the ichthyofauna components of Lake Issyk Kul. As a result of the introduction of new species fish and the irrational fishery of some indigenous fish species, some of the latter have become almost extinct. The number of moroco (*Leuciscus bergi*), which was the predominant species in the last century, has fallen tenfold.

Despite the fact that trout were introduced into Lake Issyk Kul more than 75 years ago and that work on its artificial breeding was carried out for more than 30 years, the species stock is still limited. The main reasons for this are: the limited number of natural trout reproduction environments; the use of river water for irrigation, which leads to drying and oozing of spawning areas; the high mortality among restocked fingerlings; the low quality of fingerlings used for restocking; and poaching. As a result, the quantity of trout has begun to fall. The Jergalan stock (in the region of the Jergalan River), which used to provide the bulk of the catch, is almost insignificant. Stocks have also fallen in the southwest of Lake Issyk Kul.

The epizooties of moroco in Lake Issyk Kul in 1969 and 1976 considerably undermined fish stocks. Moreover, the use of locust poison in the Son Kul region in 1979 caused mass mortality of fish in the lake and a reduction in plankton and benthos. These events could have been entry points for changing the norms and terms of fishing. However, these opportunities were not taken.

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Annex 1

FISHERIES AND AQUACULTURE STATISTICS

Fisheries data provided by the Department of Fisheries.

TABLE A1.1

Fish catches in Lake Issyk Kul

Date	Species							Total
	Ide	Moroco	Zander	Trout	Whitefish	Bream	Other	
	(tonnes)							
1965	32	1 257	20	–	–	–	26	1 335
1968	23	1 010	38	4.5	–	2	12.5	1 090
1975	77	686	112	47	–	2	5	927
1980	36	224	36	40	5	1.5	2	344
1985	14	86	22	13	23	7	1	174
1990	32	163	32	18	21	15	5	278
1992	19	90	21	7	15	0.5	2	169
2003	2.5	5	1.5	–	–	–	0.5	10

TABLE A1.2

Fish catches, Kyrgyzstan, 1965–1992

Species	1965–69	1970–74	1975–79	1980–84	1985–89	1990–92
		(tonnes)				
Pikeperch (zander)	28.32	136.38	89.45	34.04	30.94	29.46
Trout	3.02	10.34	45.74	24.38	23.66	13.06
Osman	0.98	1.30	1.68	1.03	0.16	–
Whitefish	–	–	3.52	10.58	31.47	20.40
Carp (sazan)	9.52	2.94	0.51	0.91	1.18	3.57
Ide	22.48	54.40	49.55	29.19	23.48	26.00
Moroco	1 074.00	915.70	573.64	112.03	126.13	116.26
Marinka	3.90	1.60	2.28	3.42	4.42	0.14
Tench	4.92	5.14	1.48	1.29	3.46	6.50
Silver carp	–	–	–	2.89	1.84	–
Grass carp	–	–	–	0.39	0.59	–
Total	1 147.14	1 126.60	765.85	220.15	216.78	215.39

TABLE A1.3

Technical and economic indices of Chui fish-breeding plant, 1985–1992

Species	Units	1985	1986	1987	1988	1989	1990	1991	1992
Fish catch	Tonnes	241.0	274.0	200.2	415.2	390.4	316.4	545.1	326.1
Production of fish goods	Tonnes	271.1	406.9	401.0	406.2	443.8	250.9	449.1	249.0
Gross output	Thousand roubles	365.8	462.2	335.0	622.2	543.7	445.9	1 920.4	6 695.0
Commodity output	Thousand roubles	365.8	462.2	335	719.3	620.4	507.1	1 920.4	6 695.0
Cost price	Thousand roubles	367.1	299.8	368.1	563.0	570.4	484.7	1 192.0	4 557.0
Profit	Thousand roubles	-2.0	+50.6	-38.8	+153.0	+51.0	+22.4	+442.6	+1 094.0

Note: US\$1 = 0.637 roubles in 1987.

TABLE A1.4

Technical and economic indices of Uzgen fish-breeding plant, 1985–1992

Species	Units	1985	1986	1987	1988	1989	1990	1991	1992
Fish catch	Tonnes	271.1	411.0	408.0	431.0	497.3	380.0	270.0	200.0
Production of fish goods	Tonnes	271.1	406.9	401.0	406.2	444.0	323.0	192.0	150.0
Gross output	000 roubles	386.5	538.6	535.5	545.6	598.3	469.4	832.5	4 070.7
Commodity output	000 roubles	386.5	538.6	535.5	633.8	686.5	546.1	832.5	4 070.7
Cost price	000 roubles	535.0	461.4	427.7	478.0	617.0	535.8	485.5	4 713
Profit	000 roubles	-97.6	+7.0	+121.8	+114.9	+131.6	-36.0	+321.4	-3 058.3

Note: US\$1 = 0.637 roubles in 1987.

TABLE A1.5

Technical and economic indices of Talas fish-breeding plant, 1985–1992

Species	Units	1985	1986	1987	1988	1989	1990	1991	1992
Fish catch	Tonnes	26.7	120.0	132.3	152.0	270.0	274.0	153.8	66.3
Production of fish goods	Tonnes	26.7	120.0	110.4	152.6	190.1	218.4	127.8	27.0
Gross output	000 roubles	38.1	167.0	149.2	207.4	277.2	287.6	497.0	839.0
Commodity output	000 roubles	150.1	235.6	242.0	282.6	-	360.0	663.0	839.0
Cost price	000 roubles	150.1	235.6	242.0	282.6	-	360.0	663.0	1 024.0
Profit	000 roubles	-112.3	-69.2	-92.7	-35.0	+5.0	+17.1	+64.5	-397.0

Note: US\$1 = 0.637 roubles in 1987.

TABLE A1.6

Statistics on trout stocking in Lake Issyk Kul

Date	1989–1991	1992–94	1995–97	1998–2000	2001–03	2004–06
	<i>(million fish)</i>					
Young trout introduced	9.000	4.430	4.890	0.810	1.440	1.923

TABLE A1.7

The fish catch in Lake Son Kul, 1976–1992

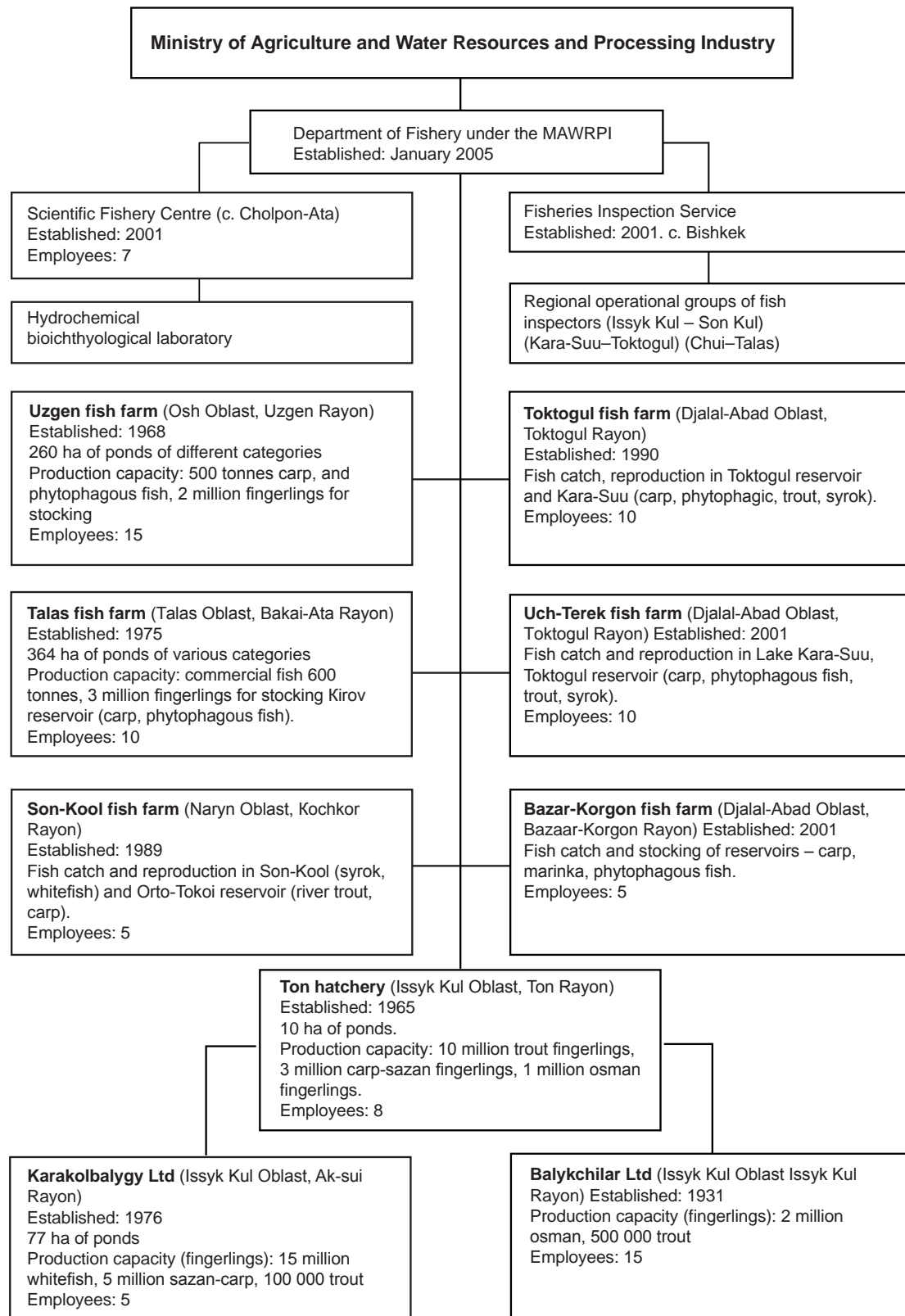
Species	1976	1977–78	1979–1981	1982–84	1985–87	1988–1990	1991–92
	<i>(tonnes)</i>						
Syrok	7.70	107.70	41.66	19.70	37.36	39.50	37.10

TABLE A1.8

The fish catch in the Toktogul impoundment, 1978-1992

Species	1978–1980	1981–83	1984–86	1987–89	1990–92
	<i>(tonnes)</i>				
Marinka	39.63	9.20	7.65	2.13	3.50
Silver carp	1.70	2.99	2.28	3.65	1.27
Grass carp	0.40	0.25	0.64	0.34	1.16
Trout	1.70	0.33	0.12	3.42	15.59
Carp	-	-	0.06	0.83	1.65
Total	43.40	12.77	10.75	10.37	23.17

FIGURE A1.1
Structure of the Department of Fishery under the MAWRPI



Note: Reproduction, incubation of eggs, and growing of young fish are implemented in accordance with the prognosis of the DOF and agreed directly with the Ton hatchery (which has the necessary facilities and equipment for egg incubation and fish rearing).

TABLE A1.9
The fish catch of fishery organizations, 1993–2004

Years	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(tonnes)													
Total catch	350.2	197.7	185.7	204.4	101,2	85.3	44.46	51.02	201.6	187.8	93.9	13.3	42.7	71.4
Lake	133.1	129.3	123.6	143.2	89.2	85.3	44.46	51.02	180.0	151.2	67.2	–	13.5	8.14
Pond	201.2	64.0	56.3	44.2	4.7	–	–	0.40	12.3	23.8	19.1	13.3	16.5	34.2
Impoundment	15.9	4.4	5.8	17.0	7.3	–	–	–	9.3	12.8	7.6	–	12.7	29.1

TABLE A1.10
List of private fish farms in the fisheries industry

Title	Year of formation	Activity	Notes
Ekos International Ltd.	2005	Commercial cage aquaculture of rainbow trout	Operating since 2006
Peasant farm Abyl	2007	–	Since 2007
Balykchylar Ltd.	1994	Reproduction of Issyk Kul trout	Since 1994
Karakolbalygy Ltd.	1994	Reproduction of Issyk Kul trout, whitefish, carp; fishery	Since 1994
New-Tek Ltd.	2007	–	Since 2007
Incubatory Plant Ltd.	2005	Reproduction of whitefish; fishery	Since 2005
Ladoga Ltd.	2007	Fishery	Not operating
Dolon Ltd.		Fishery	
Toktogul Tuzu Ltd.	2006	–	Not operating
Balyk Farm		Pond aquaculture	Since 1994
Aura Agricultural Production Cooperative	2002	Fishery	Operating
Jetymen Service Agricultural Production Cooperative	2007	Pond aquaculture	Not operating
Janysh &Co Ltd.	2006		Not operating
Kolmoch company Ltd.	2002		Operating
AquaDa Ltd.	2007	Cage aquaculture	Not operating
Forel Camp	2002	Trout fishery trout	Operating
Kyrgyzohotrybolovsoyuz		Sport, amateur and recreational fishery	Operating

TABLE A1.11
Number of employees in commercial, sport and recreational fishery as at 1 November 2007

Staff	Commercial fishery		Sport and recreational fishery
	Lakes	Reservoirs	
Men			
Full-time	11	32	32
Part-time	–	–	–
Women			
Full-time	–	–	8
Part-time	–	–	–
State sector	6	18	–
Private sector	5	14	40

TABLE A1.12

Number of people working in reproduction of fish stocks and commodity (commercial) aquaculture as at 1 November 2007

Staff	Reproduction			Commodity (commercial) aquaculture		
	Lakes	Reservoirs	Ponds of other category	Lakes (cage)	Reservoirs	Ponds of other categories
Men						
Full-time	56	2	46	15	3	53
Part-time	–	2	–	–	–	–
Women						
Full-time	17	–	9	–	–	3
Part-time	–	–	–	–	–	–
State sector	19	–	26	–	3	26
Private sector	54	–	29	15	–	30

TABLE A1.13

Data on fish catch and reproduction of the Department of Fisheries, 2005–07

Indexes	Unit	2005	2006	2007	Notes
		(9 months)			
1. Fish catch total:	tonnes	42.7	71.4	102.0	
Pond	tonnes	16.5	34.2	37.0	
Reservoir	tonnes	12.7	29.1	13.1	
Lake	tonnes	13.5	5.04	1.2	Moratorium since 2004
Cage (EKOS International)	tonnes	–	3.1	50.0	Functioning since 2006
2. Stocked waterbodies total:	million	9.97	15.7	23.406	
Young trout	million	0.85	0.623	0.706	
Young whitefish and syrok	million	6.47	11.2	9.2	
Young carp-sazan	million	2.55	3.052	10.2	
Young phytophagic	million	0.10	0.83	3.3	

TABLE A1.14

Aquaculture production by main producers in Kyrgyzstan, 2006–07

Enterprises	2006		2007 (9 months)		Total	
	Trout, whitefish	Carp and other	Trout, whitefish	Carp and other	Trout, whitefish	Carp and other
(tonnes)						
EKOS International Ltd.	3.1	–	50.0	–	53.1	–
Kolpoch Company Ltd.	–	–	–	15.0	–	15.0
Jetymen Service	–	–	–	12.0	–	12.0
Balykchylar Ltd.	0.2	–	–	–	–	–
Toktogul tuzu Ltd.	1.5	–	–	–	1.5	–
Karakolbalygy Ltd.	–	0.8	–	1.3	–	2.1
Dolon Ltd.	–	1.0	–	–	–	1.0
Balyk Farm	–	3.5	–	3.0	–	6.5
Chui-Bishkek	–	26.3	–	13.1	–	39.4
Balyk JSC	–	35.0	–	3.0	–	38.0
Total	4.8	66.6	50.0	47.4	54.8	114.0

TABLE A1.15
Statistics on reproduction and fish catch, 1989–2004

INDEX	Unit	FD, PU, RPU			KYRGYZBAILYGY JSC			DOF UNDER THE MAWRPI			FI			FISH INSPECTION			
		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1. Total fish catch	tonnes	1 442.0	1 308.9	1 361.1	939.8	350.2	197.7	185.7	204.4	101.2	85.3	44.46	51.02	201.6	187.8	93.9	13.3
Lake	tonnes	304.0	317.9	359.9	229.6	133.1	129.3	123.6	143.2	89.2	85.3	44.46	51.02	180.0	151.2	67.2	–
Pond	tonnes	1 130.0	270.4	274.5	685.4	201.2	64.0	56.3	44.2	4.7	–	–	0.40	12.3	23.8	19.1	13.3
Reservoir	tonnes	8.5	26.6	26.7	24.8	15.9	4.4	5.8	17.0	7.3	–	–	–	9.3	12.8	7.6	–
2. Total stocked waterbodies:	million	7.0	7.8	11.82	6.76	3.32	0.75	1.19	2.45	3.54	0.28	–	1.73	2.55	3.33	8.06	5.25
Young trout	million	4.0	3.0	2.0	2.06	1.62	0.75	1.19	0.81	2.89	0.28	–	0.53	0.60	0.58	0.26	0.45
Young whitefish and syrok	million	3.0	4.1	8.2	–	–	–	–	0.12	–	–	–	1.20	1.70	2.75	7.8	4.0
Young carp	million	–	0.7	1.6	4.7	1.7	–	–	1.51	0.65	–	–	–	0.25	–	–	1.8
Young phytophagic	million	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Note: FD – Fishery Directorate; PU – Production Union Kyrgyzyba; RPU – Republic Production Union Kyrgyzybkhoz; JSC – Joint Stock Corporation Kyrgyzbalygy (state share 49%); DOF – Department of Fisheries under the MAWRPI; FI – Fishery Industry, the Directorate on Livestock and Veterinary under the MAWRPI, Fish Inspection under the MAWRPI.

TABLE A1.16
Indicators on Chui fish farm (Balyk Joint Stock Company)

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 (9 m)
Catch (tonnes)	241.0	274.0	200.2	415.2	390.4	316.4	545.1	326.1	250.0	54.1	66.9	21.5	27.7	21.4	28.7	30.3	37.5	32.2	38.5	44.1	40.4	35.0	3.0

TABLE A1.17
Indicators on Uzgen state fish farm

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 (9 m)
Catch (carp, silver carp, grass carp)	271.0	411.0	408.0	431.0	497.3	380.0	270.0	200.0	31.0	–	5.8	5.2	5.0	–	–	0.4	12.3	23.8	19.1	13.3	6.0	13.0	7.7

TABLE A1.18
Indicators on Talas state fish farm

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 (9 m)
Catch (carp, silver carp, grass carp)	26.7	120.0	132.3	152.0	270.0	274.0	153.8	66.3	74.0	16.0	–	–	–	–	–	–	–	–	–	–	10.5	21.2	15.0

Note: Indicators on fish catch of the Talas fish farm are absent owing to the fact that ponds were not used in 1995–2004. Since 2005, areas of ponds have been rented by private entrepreneurs on the basis of agreements with the DOF.

Annex 2

THE FISH SPECIES OF KYRGYZSTAN AND THEIR DISTRIBUTION

TABLE A2.1
Fish species of Kyrgyzstan and their distribution

Scientific name	English name	Status	Lakes			River basins			
			Issyk Kul	Son Kul	Kara Su	Naryn	Chu	Talas	Kara-Darya
ACIPENSERIDAE									
<i>Acipenser baerii baerjii</i> (Brandt, 1869)	Siberian sturgeon	(Introduced)				X			
SALMONIDAE									
<i>Coregonus migratorius</i> (Georgi, 1775)	Baikal Omul/Arctic cisco	(Introduced)							
<i>Coregonus lavaretus</i> (Linnaeus, 1758)		Introduced							
<i>Coregonus lutokkka</i> (Kottelat, Bogutskaya et Freyhof, 2005)	Common whitefish	(Introduced)	X	X	X				
<i>Coregonus peled</i> (Gmelin, 1789)	Peled	Introduced		X	X		X		
<i>Oncorhynchus mykiss</i> (Walbaum, 1792)	Rainbow trout	(Introduced)	X						
<i>Salmo ischchan</i> (Kessler, 1877)	Sevan/Issyk Kul trout	Introduced	X			X			
<i>Salmo trutta oxianus</i> (Kessler, 1874)	Amu-Darya trout	Indigenous				X	X	X	X
ESOCIDAE									
<i>Esox lucius</i> (Linnaeus, 1758)	Pike	Indigenous						X	
CYPRINIDAE									
<i>Abramis brama</i> (Linnaeus, 1758)	Bream	Introduced	X					X	
<i>Alburnoides taeniatus</i> (Kessler, 1874)	Striped bystranka	Indigenous	X				X		X
<i>Aristichthys nobilis</i> (Richardson, 1845)	Bighead carp	(Introduced)					X	X	X
<i>Aspiolucius esocinus</i> (Kessler, 1874)	Pike asp	Indigenous					X		
<i>Aspius aspius</i> (Linnaeus, 1758)	Asp	Indigenous						X	
<i>Barbus capito conocephalus</i> (Kessler, 1872)	Turkestan barbel	Indigenous					X	X	
<i>Barbus brachycephalus brachycephalus</i> (Kessler, 1872)	Aral barbel	Indigenous					X	X	

TABLE A2.1 (Cont.)

Scientific name	English name	Status	Lakes				River basins			
			Issyk Kul	Son Kul	Kara Su	Naryn	Chu	Talas	Kara-Darya	
<i>Capoetobrama kuschakewitschi kuschakewitschi</i> (Kessler, 1872)	Sharpray	Indigenous					X			
<i>Capoetobrama kuschakewitschi orientalis</i> (Nikolskii, 1934)		Indigenous					X			X
<i>Carassius gibelio</i> (Bloch, 1782)	Goldfish/Prussian carp	Introduced	X			X	X	X	X	X
<i>Ctenopharyngodon idella</i> (Valenciennes, 1844)	Grasscarp	Introduced				X	X	X		
<i>Cyprinus carpio carpio</i> (Linnaeus, 1758)	Common carp	Indigenous	X			X	X	X	X	X
<i>Diptychus maculatus</i> (Steindachner, 1866)	Scaled osman	Indigenous				X	X			
<i>Diptychus sewerzowi</i> (Kessler, 1872)		Indigenous	X			X	X			
<i>Gymnodiptychus dybowskii</i> (Kessler, 1874)	Naked osman	Indigenous	X	X		X	X	X		
<i>Gobio gobio gobio</i> (Linnaeus, 1758)	Issyk Kul gudgeon	Indigenous	X			X	X	X	X	X
<i>Hemiculter leucisculus</i> (Basilevsky, 1855)	Sharpbelly	Introduced				X	X			
<i>Hypophthalmichthys molitrix</i> (Valenciennes, 1844)	Silver carp	Introduced				X	X	X		X
<i>Lagowskiella demenjevii</i> (Turdakov and Piskarev, 1954)		Indigenous						X		
<i>Lagowskiella poljakowi</i> (Kessler, 1879)	Balkash minnow	Indigenous						X		
<i>Leuciscus baicalensis</i> (Dybowski, 1874)	Dace	Indigenous								
<i>Leuciscus bergi</i> (Kashkarov, 1925)	Issyk Kul Dace	Indigenous	X							
<i>Leuciscus idus</i> (Linnaeus, 1758)	Ide/Orfe	Indigenous								
<i>Leuciscus lindbergi</i> (Zanin and Ereimejev, 1934)	Talas dace	Indigenous							X	
<i>Leuciscus schmidti</i> (Herzenstein, 1896)	Schmidt's dace	Endemic	X							
<i>Mylopharyngodon piceus</i>	Black Amur	(Introduced)								
<i>Petroleuciscus squaliusculus</i> (Kessler, 1872)	Syr-Darya Dace	Indigenous								X
<i>Phoxinus brachyurus</i> (Berg, 1912)	Short tailed minnow/ Seven River's minnow	Indigenous								
<i>Phoxinus issykkulensis</i> (Berg, 1912)	Issyk-kul minnow	Indigenous	X							
<i>Pseudorasbora parva</i> (Terminck and Schlegel, 1846)	Stone moroko/False harlequin	Introduced	X			X	X	X	X	X

TABLE A2.1 (Cont.)

Scientific name	English name	Status	Lakes				River basins			
			Issyk Kul	Son Kul	Kara Su	Naryn	Chu	Talas	Kara-Darya	
<i>Rhodeus sericeus</i> (Pallas, 1776)		Introduced					X			
<i>Rutilus rutilus</i> (Linnaeus, 1758)	Roach	Indigenous					X			
<i>Scardinius erythrophthalmus</i> (Linnaeus, 1758)	Rudd	Indigenous					X			
<i>Schizothorax intermedius eurycephalus</i> (Berg, 1932)		Indigenous								X
<i>Schizothorax intermedius intermedius</i> (McClelland, 1842)	Common marinka	Indigenous				X		X		X
<i>Schizothorax intermedius talassi</i> (Turdakov, 1955)		Indigenous								X
<i>Schizothorax pseudoaksaiensis issykkuli</i> (Berg, 1907)	Issyk-kul marinka	Indigenous	X							
<i>Schizothorax pseudoaksaiensis pseudoaksaiensis</i> (Herzenstein, 1888)		Indigenous						X		
<i>Schizothorax pseudoaksaiensis tschuensis</i> (Pivnev, 1985)		Indigenous						X		
<i>Tinca tinca</i> (Linnaeus, 1758)	Tench	Introduced	X					X		X
BALITORIDAE										
<i>Dzihunia amudariensis</i> (Rass, 1929)	Bukhara stone loach	Indigenous								
<i>Dzihunia turdakovi</i> (Prokofiev, 2003)		Indigenous								
<i>Nemacheilus kuschakewitschi</i> (Herzenstein, 1890)	Kuschakewitsch loach	Indigenous				X				X
<i>Nemacheilus oxianus</i> (Kessler, 1877)	Amu-Darya stone loach	Indigenous				X				X
<i>Nemacheilus paradoxus</i> (Turdakov, 1955)	Talas stoneloach	Indigenous				X			X	
<i>Triplophysa coniptera salari</i> (Turdakov, 1954)	Ters stoneloach	Indigenous							X	
<i>Triplophysa dorsalis</i> (Kessler, 1872)	Grey loach	Indigenous	X	X				X	X	X
<i>Triplophysa stoliczkaei</i> (Steindachner, 1866)	Tibetan stoneloach	Indigenous	X					X	X	X
<i>Triplophysa strauchii strauchii</i> (Kessler, 1874)	Spotted thicklip loach	Indigenous	X							
<i>Triplophysa strauchii ulacholicus</i> (Anikin, 1905)	Issyk-kul naked loach	Indigenous	X							

Annex 3

MAP OF THE KYRGYZ REPUBLIC



Annex 4

CHARTER OF THE KYRGYZ ASSOCIATION OF PISCICULTURISTS

Approved by: General Assembly of the Association Founders, 10 May 2007

Charter

Association of Legal Entities

Kyrgyz Association of Pisciculturists “Balyk Resources”

1. GENERAL REGULATIONS

The union of legal entities the Kyrgyz Association of Pisciculturists “Balyk Resources”, hereinafter referred to as “the Association”, is a non-commercial organization that is established and carries out its activity in accordance with the Constitution of the Kyrgyz Republic (KR), Civil Codex KR, Law KR “On non-commercial organizations” and other legal acts of the KR and current Charter.

The Association is a voluntary union of legal entities unified in the procedure stipulated by legislation in order to coordinate the activity, presentation and protection of interests of fish farms and their members to render legal, informational and other services as well as to create the necessary production and social infrastructure of fish farms in the Kyrgyz Republic.

The Association is established without limitation of its longevity.

2. TITLE AND LOCATION OF THE ASSOCIATION

Full and short title of the Association:

- In state language: Balyk-Resources Kyrgyz balyk osturuuxhulor assotsiatsiyasy Uyridikalyk jaktardyn birikmesi;
- In official language: Objedinenie uyridicheskikh lits “Kyrgyzskaya Assotsiatsia rybovodov “Balyk Resoursy”; short title OUL “KAR Balyk-Resoursy”.

The location of the Association: 77 house, Chui-4 Str, Ak-Bosogo residential area, Bishkek

3. OBJECTIVES AND TASKS OF THE ASSOCIATION

The Association carries out its activity in accordance with general principles of self-regulation in the fish sector in order to consolidate efforts of pisciculturists, fish farms and members of the Association in order to develop the institute of self-regulation in fish culture activity through the establishment of infrastructure and the implementation of professional, informational objectives of pisciculturists, protection of rights and legal interests of members of the Association as well as for other purposes that do not contradict the legislation of the KR and the current Charter.

The main objectives and tasks of the Association are the following:

- coordination of activity of the Association members in developing the activities of fish farms and protection of their interests;
- rendering assistance in the establishment and functioning of an effective system of self-regulation in fishing;
- rendering assistance in organizational, legal, methodological and advisory support to members of the Association in undertaking their professional activity;
- attracting and spending financial resources on developing of the Association members’ activities;

- establishment and maintenance of international relations and direct contacts on issues of fishing within and outside the KR;
- study and distribution of local and international experience in fishing;
- presentation and protection of rights and legal interests of the Association in state, public, judicial and other bodies within and outside the KR.

In order to reach its objective and perform its tasks, the Association:

- cooperates with international organizations, non-commercial and commercial organizations, centres, associations, natural and legal entities, and state entities within and outside the KR;
- organizes and conducts as well as participates in workshops, “round tables”, conferences and other arrangements in agriculture, particularly in the fish sector;
- coordinates efforts of the Association members in establishing and introducing new methods and technologies in the fish sector;
- cooperates with local and foreign non-commercial and commercial organizations in order to have direct contacts and attract financial resources and grant assistance for the development of fisheries;
- considers claims, complaints of natural and legal entities on violations of legislation of the KR in relation to fisheries, norms and rules on self-regulation, procedures on activity in the fish sector approved by the Association;
- provides fish farms with appropriate proposals and recommendations;
- develops and supports principles of honest competitiveness in activities of fish farms;
- prepares, issues and distributes information (hard copy, electronic, audiovisual) about fisheries;
- implements other activities that do not contradict the legislation of KR and are related to implementation of objectives and tasks of the Association.

4. LEGAL STATUS OF THE ASSOCIATION

The Association becomes a legal entity from the moment of its state registration. The Association has the right to have its own and working capital, independent accounts, settlement accounts (in som and foreign currency) in banks and credit agencies within and outside the KR. The Association is the sole owner of the assets, registered in independent accounts, including funds transferred by its members as payment of entrance and membership fees. The Association acting on its own behalf and in its own name may obtain and exercise property rights and related personal non-property rights, incur obligations in accordance with the legislation of the KR, sue and be a defendant in any court.

The Association has its state seal and stamp with full name of the Association in Kyrgyz and Russian languages. The Association has the right to have its own letterhead as well as other markings.

The Association undertakes its activities on the principles of voluntariness, equality for all members, legitimacy and transparency, without aiming at deriving a profit as its main task.

The Association has the right to join international, public, non-commercial and commercial organizations, to maintain direct international connections, and to conclude appropriate agreements.

The Association is not responsible for the obligations of the state, and the state is not responsible for obligations of the Association. Interference by state bodies or officials into the activity of the Association as well as interference by the Association into the activity of state bodies or officials is prohibited except in the cases provided for by legislation.

The Association is liable for its obligations with its funds and property. The Association is responsible for the obligations of its members.

The Association has the right to carry out other types of activities in observation of legal requirements of the KR that do not contradict the current Charter.

The Association is not responsible for obligations of its members. Members of the Association bear subsidiary responsibility for its obligations in the amount of fee contributed.

5. PROPERTY AND FUNDS OF THE ASSOCIATION

The Association exercises possession, use and disposal of the assets and funds in accordance with the purposes of its activity and legislation of the KR.

Sources of the Association's assets and funds are:

- regular and targeted receipts of funds through the Association members' payment of obligatory and voluntary contributions;
- voluntary monetary contributions in national and foreign currency, grant aid, subsidies and other material resources from natural and legal entities of the KR and foreign countries;
- other contributions not prohibited by legislation of the KR.

Monetary funds and contributions are paid into settlement and foreign currency accounts of the Association.

The assets and funds of the Association are used for the following:

- achieving the objectives and undertaking the tasks stipulated in its Charter;
- payment of salaries for the Association's employees;
- purchase of assets, stationery, equipment and others necessities for the functioning of the Association;
- charitable and other purposes that do not contradict legislation of the KR and the current Charter.

Land plots, buildings, constructions, trade brands, patents, licences, transport, equipment, telecommunications, copiers as well as other equipment and assets necessary for the activity of the Association can be its property.

6. MEMBERS OF THE ASSOCIATION, THEIR RIGHTS AND DUTIES

Members of the Association are legal entities and private entrepreneurs that have voluntarily joined, have the appropriate certificate, support the objectives and tasks of the Association, recognize its Charter and take active part in the activity of the Association as well as contribute their fee in accordance with the Charter of the Association.

Members of the Association have the right:

- to participate in the activities of the management and control bodies of the Association including participation in voting and decision-making at the General Assembly of the Association members on the "one- member-one vote" principle;
- to elect and be elected to the management and control bodies of the Association;
- to participate in the activities and measures implemented by the Association;
- to use services, possibilities, support and assistance of the Association;
- to retain their legal independence;
- to obtain information about the activity of the Association as well as accounting records and other documentation of the Association;
- to call for an extraordinary General Assembly of the Association members in accordance with the procedure and under the conditions as required by the legislation of the KR, current Charter and other internal regulations and standards;

- to make proposals for consideration by the management bodies of the Association and participate in discussion of issues related to the activities of the Association;
- to cancel their membership of the Association in accordance with the procedure and under the conditions specified by legislation of the KR and current Charter.

Obligations of the members of the Association:

- to observe the current Charter;
- to implement the decisions of the management and control bodies of the Association;
- to submit to the Association the information necessary for decision-making, related to the activity of the Association;
- to pay on time the membership fee in accordance with the procedure and amount determined by the General Assembly of the Association members;
- not to act (non-action) where the result of acting would be violation of the laws of the KR.

Admission to membership of the Association is on the basis of a written application form, submitted to the Chairperson of the Supervisory Board of the Association. A written application form is to be considered by the Supervisory Board within one month. In the event of approval, it has to be presented at the General Assembly. In the event of rejection, notification has to be issued with reasons for the rejection.

The decision on admission to membership of the Association has to be taken at the General Assembly of the Association meeting by a simple majority of votes of members present, and this has to be registered in the minutes of the General Assembly of the Association's members.

Applicants for membership of the Association receive the status of Association member from the moment of admission fee payment.

Membership of the Association has to be recorded in the registration book, which is under the responsibility of the Secretary of the General Assembly of the Association's members.

The procedure on admission and the membership fees are to be determined by the Chairperson of the Supervisory Board and to be approved by the General Assembly of the Association's members.

Member of the Association can be excluded from membership in the following cases:

- violation of the Charter, Founders Agreement;
- failure to pay membership fee on time;
- failure to implement decisions of the management and control bodies of the Association;
- action (non-action) resulting in financial and non-financial damage for the Association;
- violations, implying criminal and other responsibility, in accordance with the legislation of the KR.

The decision on exclusion from membership of the Association is to be taken by a simple majority of votes of members present at the General Assembly and it is to be registered in the minutes of the General Assembly of the Association members. In relation to responsibility and contribution of assets of the excluded member, the rules on withdrawal from the Association are to be applied in accordance with the legislation of the KR.

Each member of the Association has the right to leave free of charge membership of the Association at the end of year by providing 30 calendar days advance notice thereof to the Supervisory Board. In this case, he/she bears subsidiary responsibility on obligations of the Association proportionally to their contribution for two years from the moment of leaving. The Association is not responsible for the obligations of its members. Withdrawal from membership of the Association has to be by written notification submitted to the Chairperson of the Supervisory Board of the Association.

The moment when the written notification of withdrawal from membership of the Association is received and registered by the Chairperson of the Supervisory Board of is to be considered as the moment of effective withdrawal from membership.

7. MANAGEMENT AND CONTROL BODIES OF THE ASSOCIATION

The management bodies of the Association are the following: General Assembly of the Association members, the Supervisory Board of the Association.

The control body of the Association for its financial and business activities is the Audit Committee of the Association.

The executive body of the Association is the Board of Directors.

8. GENERAL ASSEMBLY OF THE ASSOCIATION MEMBERS

The highest management body of the Association is the General Assembly, which consists of all its members. The General Assembly has the right to make decisions on any issues in relation to the activity of the Association.

The General Assembly is to be conducted according to the procedure established by legislation of the KR, the current Charter and other internal regulations and standards of the Association.

The General Assembly is to consist of all members of the Association, and it has to be convened as required but no less than once per year.

The General Assembly has a quorum and has to be considered as valid if at the moment of the meeting of the General Assembly more than half of all registered members are present.

The Chairperson of the Board of Directors of the Association moderates the meeting of the General Assembly. In the event of absence of the Chairperson, the meeting is to be moderated by a member of the Board of Directors (appointed by the Chairperson of the Supervisory Board).

The General Assembly shall be called and conducted by the Secretary of the General Assembly elected for the period of one year at the General Assembly from among the members of the Association by a simple majority of the members present.

The Secretary of the General Assembly is responsible for:

- making arrangements for the General Assembly;
- sending the agenda, work programme and other documents required to conduct the General Assembly to the members of the Association;
- registering members of the Association and their representatives for participation in the meeting of the General Assembly of the Association;
- preparing a list of speakers and rules of work of the General Assembly;
- keeping minutes of the General Assembly;
- keeping a single book of minutes of the General Assembly meeting.

The members of the General Assembly shall be informed about the call to the General Assembly in writing indicating the agenda, time and venue of the General Assembly at least 30 days before the meeting.

The General Assembly of the Association shall be called in order to determine long-term directions of work, summing-up of previous activities, and solutions to other issues that are the competence of the Association.

The exclusive competence of the General Assembly includes:

- introduction of amendments and supplements to the Charter of the Association;
- approval of main directions of the Association's work, principles and procedures of the formation and use of its assets and funds;
- election of the Chairperson and the Secretary of the General Assembly of the Association and early termination of their powers;
- election of the Chairperson and Board members, and the Auditors of the Association;
- early termination of powers of the members of the Supervisory Board of the Association;

- approval of rules, procedures and other documents of the Association, its organizational structure, list and salary of staff of the Association (on recommendation of the Chairperson of Supervisory Board of the Association);
- affiliation and expulsion of members of the Association;
- approval of amount, procedure and period of payment of membership fees of the Association on recommendation of the Supervisory Board;
- approval of entering into a contract exceeding 20 percent of the cost of the total asset of the Association;
- hearing and approval of the accounts, financial plan and budget, and annual report on a status of affairs of the Association;
- hearing and approval of reports prepared by the management and control bodies of the Association;
- organization and approval of external audits of the Association, creation of conditions for hiring an external auditor;
- making and approving decisions about cooperation, participation of the Association in activities of other legal entities, determining the form of such cooperation and participation;
- taking decisions on the reorganization and liquidation of the Association, creation of a liquidation commission, and approval of interim and final liquidation balances of the Association, solution of other issues related to the Association.

The issues at the General Assembly shall be resolved by voting under the one-member-one-vote principle. The decisions at the General Assembly shall be accepted where the majority of members of the Association present at the General Assembly vote for them. In the case of a tie, the Chairperson of the General Assembly has the casting vote.

The extraordinary General Assembly can be convened at the request of the members of the Association and other management bodies of the Association.

The General Assembly has no right to take decisions on issues not included on the agenda. The agenda shall be distributed at least 20 days before the beginning of the General Assembly.

The decisions of the General Assembly shall be recorded in the minutes and signed by the Chairperson and the Secretary of the General Assembly.

9. SUPERVISORY BOARD OF THE ASSOCIATION

The Supervisory Board of the Association, hereinafter “the Supervisory Board”, is a supervisory body of the Association.

The Supervisory Board shall consist of two members and the Chairperson.

The Supervisory Board shall be elected for the period of one year by the General Assembly of the Association by a simple majority of votes of members present at the General Assembly.

The Chairperson of the Supervisory Board shall be elected for the term of one year from among the members of the Supervisory Board by a majority of votes of the members present at the General Assembly.

The Supervisory Board shall be entitled to resolve issues submitted for its consideration where no fewer than three members attend the meeting of the Supervisory Board. The decisions of the Supervisory Board shall be taken by a simple majority of votes of the total number of members. In the event of a tie, the Chairperson of the Supervisory Board has the casting vote.

The Supervisory Board is responsible for:

- control over implementation of objectives, tasks stipulated by the Charter, and execution of decisions taken by General Assembly;
- consideration of prospective and current issues of the Association;

- development of rules, procedures and other documents of the Association, its organizational structure, list and salary of staff of the Association, and submission for approval by the General Assembly;
- determining of the amount, procedure and period of payment of membership fees of the Association and their submission for approval by the General Assembly of the Association;
- consideration of the annual report and accounts of the Association and submission for approval by the General Assembly;
- approval of rules of work of the Association;
- consideration of other issues submitted for discussion at the initiative of the Chairperson of the Supervisory Board or individual members of the Association.

The Supervisory Board also has the right to take decisions on other issues of organization and activity of the Association, except for issues that are the sole competence of the General Assembly of the Association.

Each meeting of the Supervisory Board shall be recorded in the minutes.

The Supervisory Board shall be accountable to the General Assembly of the Association.

In accordance with the decision of General Assembly, members or the Chairperson of the Supervisory Board may be excluded, and their powers may be terminated early.

The decision on exclusion or early termination of powers of the members and the Chairperson of the Supervisory Board shall be taken at the General Assembly by a simple majority of vote of the members present and recorded in the minutes of the meeting of the General Assembly of the Association.

The members of the Supervisory Board shall have the right to resign by his/her own will at any time by submitting written notification to the Chairperson of the Supervisory Board. The moment of resignation of the member of the Supervisory Board shall be that of receipt by the Chairperson of the Supervisory Board of said notification.

In this case, the Chairperson of the Supervisory Board shall be obliged to notify members of the Association in writing and raise a question about a call of the General Assembly and election of new members of the Supervisory Board.

The Chairperson of the Supervisory Board shall have the right to resign by his/her own will at any time, notifying all members of the Association in writing.

In this case, the Chairperson of the Supervisory Board shall be obliged to call an extraordinary (regular) General Assembly of the Association members in order to resign and elect a new Chairperson of the Supervisory Board.

The opening of the meeting of the General Assembly of the Association shall be considered as the moment of resignation of Chairperson of the Supervisory Board.

10. BOARD OF DIRECTORS OF THE ASSOCIATION

The Board of Directors of the Association, hereinafter the “Board of Directors”, performs the functions of an executive body.

The Board of Directors shall be headed by its Chairperson.

The composition of the Board of Directors shall be elected for the period of one year, at the General Assembly of the Association by a simple majority of members present, three members in number.

The competences of Board of Directors include:

- entering into financial and other agreements related to use and dispose of assets (non-property) and funds of the Association up to the cost of 20 percent of the total capital of the

Association, in excess of this fixed amount, with the consent of the Supervising Board and General Assembly;

- preparation of reports and estimates of administration and production costs and their submission for consideration and approval by the General Assembly and Supervisory Board;
- preparation and submission of annual report and accounts of the Association for pre-approval by the Supervisory Board before the General Assembly;
- preparation of regulations of the Association;
- execution of decisions of the General Assembly and Supervisory Board;
- resolution of issues related to improvement in performance of the Association's members;
- ensuring the bookkeeping of the Association's work, submission of accounting and other reports to the state statistical agencies;
- submission of estimates of administration and economic costs of the Association for approval by the Supervisory Board;
- submission of annual report and accounts of the Association for approval by the General Assembly;
- preparation of other issues submitted for discussion by initiative of the Chairperson of the Supervisory Board or individual members of the Association.

The competences of the Chairperson of the Board of Directors are:

- organization of call, work and signing of minutes of the meeting of the Steering Committee;
- ensuring the economic activities to achieve the objectives of the Charter of the Association;
- opening of settlement and other accounts with banks;
- representation of interests of the Association without power of attorney;
- disposal of assets and funds of the Association, as well as settlement of various transactions within his/her powers with the right to sign financial documents of the Association;
- publication of orders, instructions and other acts regulating labour activity of staff of the Association;
- establishment of a procedure of employment according to labour agreements, order and amount of their salary;
- issues of power of attorney to the Association staff;
- employment and dismissal of employees of the Association according to the approved staff list;
- preparation of issues submitted for consideration of the General Assembly and the Steering Committee of the Association.

11. AUDITOR OF THE ASSOCIATION

The Auditor of the Association is the controlling organ of the Association carrying out control over financial and economic activities, execution of budget and expenditures (internal audit) of the Association.

The Auditor shall be elected for the period of one year from among the members of the Association by a simple majority vote of the members present of the General Assembly of the Association.

The Auditor shall have the right to demand from officials of the Association and members of the management bodies of the Association any information required for the execution of duties; and the officials of the Association are obliged to provide such information.

The Auditor shall conduct a scheduled audit of the financial and economic activities of the Association no fewer than four times a year. An off-schedule audit shall be conducted in cases of:

- decision of the General Assembly of the Association;
- demand of the Chairperson of the Supervisory Board;
- on demand of no fewer than one-third of the Association's members.

12. EXTERNAL AUDIT

The Association, on its own account, may invite specialized organizations to audit and confirm the annual financial reporting of the Association (external audit).

13. MODIFICATION OF THE CHARTER

Amendments and supplements to the Charter shall be approved by decision of the General Assembly of the Association and subject to registration in accordance with the established procedure.

If any provision of the Charter becomes invalid, it shall not affect other provisions. Any invalid provision shall be replaced with another close by implication and admissible in legal terms.

14. REORGANIZATION AND LIQUIDATION OF THE ORGANIZATION

Reorganization (merger, separation, affiliation, division, or reorganization) of the Association shall be carried out by decision of the General Assembly of the Association in accordance with legislation of the KR.

The Association shall be liquidated by decision of the General Assembly of the Association and by decision of court.

If the Association is liquidated, the General Assembly shall create the Liquidation Committee and determine the procedure and period of liquidation of the Association.

From the moment of appointment of the Liquidation Committee, all powers on administration of the Association shall pass to it. The Liquidation Committee shall act on behalf of the Association in relations with third parties.

In accordance with legislation of the KR, the Liquidation Committee shall be liable for damage and harm caused to the Association, its members, and third parties.

If the Association is reorganized, all its rights and liabilities shall pass to the assignee (assignees) in accordance with the procedure envisaged by the legislation of the KR.

If the Association is liquidated, the assets remaining after settlement of claims of creditors and other compensations shall be directed to objectives and tasks for the achieving of which the Association was established.

The liquidation of the Association shall be considered completed and the existence of the Association terminated after this entry is made in the single state register of legal entities by the state registration agency.

The conditions and procedure of reorganization and liquidation not stipulated by the present Charter shall be regulated by the legislation of the KR.

15. ACCOUNTING AND REPORTING OF THE ASSOCIATION

The Association shall keep accounts and submit financial reports according to the legislation of the KR.

The Chairperson of the Board of Directors shall be responsible for proper bookkeeping and submission of financial documents and other forms of reporting to respective agencies.

16. FINAL PROVISION

The Charter shall come into force from the moment of its state registration.

Amendments and supplements made to the Charter of the Association shall come into force from the moment of their state registration.

Issues not regulated by this Charter can be settled by the General Assembly of the Association in accordance with the legislation of the KR.

Chairperson of the Board of Directors of the Association

Annex 5

THE FISHERY LAW, 1997

Bishkek

25 June 1997, #39

LAW OF THE KYRGYZ REPUBLIC ON THE FISH INDUSTRY

This Law shall regulate the legal, economic and organizational fundamentals of the fish-farm industry of the Kyrgyz Republic for the purposes of comprehensive development, preservation and increase of fish reserves, improvement of fish productivity of reservoirs and ponds, and the fullest satisfaction of the needs of the population in terms of fish products.

I. BASIC PROVISIONS

Article 1. Legislation on the Fish Industry

The legislation on the fish industry shall be based on the Constitution of the Kyrgyz Republic and shall be comprised of this Law and other normative acts passed in accordance with this Law.

Article 2. Subject-Matter of Regulation of This Law

“Fish industry” shall mean a system of fish farming, fishing, reproduction and protection of fish reserves aimed at improvement of species, fish reserves, water reservoirs and ponds, and fostering the activity of fish-farming entities regardless of their form of ownership that breed fish for sale, produce planting and pedigree material, extract, protect and process it.

This Law shall regulate the relations arising in possession, use and disposal of the natural and artificial fish reserves in fish farming water reservoirs and reservoirs of common use of the Kyrgyz Republic.

Natural fish reserves in reservoirs of any category located on the territory of the Kyrgyz Republic shall be owned by the Kyrgyz Republic.

Fish-farming reservoirs shall mean reservoirs that are used or may be used for fishery and are significant for the preservation and reproduction of reserves of marketable fish, and artificial reservoirs constructed specifically for fish farming.

Reservoirs of common use shall mean rivers, lakes, ponds, basins and their influx waters, except for reserves that are not meant for marketable fishing, and for organization of amateur and sport fishing.

Article 3. Fundamentals of Running Fish Farms

Fish-farming entities, regardless of the form of ownership, while running fish farms must secure:

- fish reproduction ability;
- preservation of productivity of water reservoirs;
- protection of living environment, conditions of reproduction and paths of fish migration;
- prevention of unwanted changes in water ecosystem, in the event of artificial fish farming (hereinafter fish farming);
- effective and rational use of pond areas to breed fish for sale, planting and pedigree materials.

II. MANAGEMENT OF FISH RESERVES OF WATER RESERVOIRS

Article 4. Management of Fish Farms

The Government of the Kyrgyz Republic shall supervise fish reserves in fish-farming reservoirs of government significance:

- the Issyk Kul, Son Kul, and Kara-Kul lakes;
- the Toktogul, Bazar-Korgon, Kirovsk, and Orto-Tokojsk water basins.

Other reservoirs may also be referred to reservoirs of government significance upon the decision of the Government of the Kyrgyz Republic.

The Government of the Kyrgyz Republic shall assign the main user of fish-farming reservoirs of government significance. In accordance with the programme approved by the Government of the Kyrgyz Republic, Kyrgyzbalygy Corporation shall carry out coordination of the activity on performing uniform fish-farming policy in the Kyrgyz Republic.

The Ministry of Environment Protection of the Kyrgyz Republic shall supervise only fish reserves of reservoirs of common use.

The owner of the reservoir held in private ownership shall dispose of fish reserves in this reservoir.

Article 5. Record of Fish Reserves

Fish reserves and fish bred in artificial reservoirs shall be subject to record, which is carried out separately on reservoirs and fish species according to the procedure established by the legislation.

Article 6. Settlement of Disputes

Disputes related to the use of fish reserves in reservoirs and their protection shall be settled under the court procedure according to the existing legislation of the Kyrgyz Republic.

III. ORGANIZATION OF FISHING AND FISH FARMING

Article 7. Transfer of Reservoirs and Their Areas for Use

The main user of reservoirs of the Kyrgyz Republic may transfer fully or in part reservoirs (fishing areas) for use for purposes of fishing or fish farming to other legal entities and individuals according to the procedure established by the existing legislation of the Kyrgyz Republic.

The procedure for fish farming shall be set forth in fish water biological norms approved by Kyrgyzbalygy Corporation of the Kyrgyz Republic upon coordination with the Ministry of Environment Protection of the Kyrgyz Republic and the National Academy of Science of the Kyrgyz Republic.

The main user of reservoirs shall assign reservoirs and their areas to legal entities and individuals for fish farming based on the scientific justification for their subsequent economic fish development, structure and organization of fish farms subject to measures on reproduction, fish farming, protection and extraction of fish.

A contractual user of reservoirs (areas) may transfer the use right to another person unless prohibited by the contract.

The main user of the reservoir shall carry out record, registration of fishing areas and issuance of permission for fish extraction in fish farming reservoirs.

In the event of systematic violation of fishing rules or the contract for the fishing right, the contract may be annulled according to the procedure established by law; and until the annulment of the contract, its effect may be suspended.

Article 8. Amateur and Sport Fishing

The procedure and conditions for amateur and sport fishing shall be established in the Regulations on Fishing Rules developed and approved by the Government of the Kyrgyz Republic.

The contractual user shall issue a permit for amateur and sport fishing, and in the event there is no such user, the permit shall be issued by the main user of the reservoir or its area.

Article 9. Priority Right of Use of Reservoirs

Special fish-farming entities engaged in extraction and fish husbandry shall have the priority right to receive a reservoir area for use to carry out fish-farming activity.

Article 10. Fishing for Scientific Purposes

The main user of a reservoir shall provide the reservoir for fishing for scientific purposes.

Article 11. Fishing in Reserve Zones of Reservoirs

Fish-farming entities that carry out marketable fishing shall have the right to extract fish in reserve zones of reservoirs upon coordination with the Ministry of Environment Protection of the Kyrgyz Republic.

Article 12. Erection of Industrial and Other Facilities Affecting the Condition and Reproduction of Fish Reserves

Erection of industrial and other facilities affecting the condition and reproduction of fish reserves shall be carried out upon coordination with the Ministry of Environment Protection of the Kyrgyz Republic.

Article 13. Use of Water in Artificial Reservoirs

In the event that a fish farm is run in an artificial reservoir that is constructed specifically for fish farming and that uses water potential for filling up, the relations with agencies fostering the protection of the government water fund shall be regulated by Articles 15, 31 and 41 of the Law of the Kyrgyz Republic on Water.

IV. PROTECTION OF FISH RESERVES AND ITS LIVING ENVIRONMENT**Article 14. Fish Protection Agencies**

Fish inspection agents of the main user shall carry out fish protection and control over performance of rules of fishing and fish farming in fish-farming reservoirs of government significance.

The Ministry of Environment Protection of the Kyrgyz Republic shall organize protection of fish reserves of reservoirs of common use.

Fish inspection agents shall carry out their activity in accordance with the Regulations on Fish Inspection developed and approved by the Government of the Kyrgyz Republic.

Article 15. Liability for Violation of Fishing Rules

Individuals and legal entities violating the fishing rules or fishing illegally shall be held liable in accordance with the legislation of the Kyrgyz Republic.

Illegally extracted fishing objects and products made thereof, and the instruments of illegal fishing, including floating means, shall be subject to confiscation according to the procedure established by the legislation of the Kyrgyz Republic.

V. RESTRICTION OF USE OF FISH RESERVES

Article 16. Establishment of Restrictions

In the event of a threat to the condition of fish reserves (mass fish death, disease, poisoning and pollution of water environment, etc.), the Ministry of Environment Protection of the Kyrgyz Republic or the main user of a reservoir shall have the right, as an exception, to impose restrictions on fishing for the specified period.

Article 17. Acclimatization of Specific Species of Fish

Acclimatization of specific species of fish in fish-farming reservoirs of the Kyrgyz Republic, the introduction of new species of fish into these reservoirs shall be allowed only where there is the scientific justification and approval of the governmental institution of the veterinary service.

VI. FUND FOR FISH-FARMING DEVELOPMENT

Article 18. Designation of the Fund for Fish-Farming Development

In order to organize the reproduction and protection of fish reserves, fish production in the Kyrgyz Republic, and to solicit additional financing for fish-farming research, targeted government and non-government funds for fish-farming development may be established.

Article 19. Formation of the Fund for Fish-Farming Development

The fund for fish-farming development shall be formed by utilizing:

- contributions from the Republican and local budgets to implement targeted fish-farming programmes;
- voluntary donations of individuals and legal entities for fish-farming development;
- other contributions not prohibited by the existing legislation of the Kyrgyz Republic.

Article 20. On Effectuation of This Law

This Law shall come into effect from the time of its official publication.

A. Akaev, President of the Kyrgyz Republic

Adopted by the Legislative Assembly of Jogorku Kenesh of the Kyrgyz Republic as of 13 June 1997

Annex 6

POVERTY LEVELS IN KYRGYZSTAN

TABLE A6.1
Poverty levels in Kyrgyzstan

	1999	2000	2001	2002	2003	2004	2005
				(%)			
Kyrgyzstan	–	62.5	56.4	54.8	49.9	45.9	43.1
Batken Oblast	–	68.9	54.5	62.5	84.9	77.8	59.1
Jalal–Abad Oblast	–	76.5	68.0	66.8	57.7	50.1	55.9
Issyk–kool Oblast	–	70.9	62.6	53.9	52.1	54.1	51.5
Naryn Oblast	–	90.9	89.1	84.6	72.1	66.3	51.2
Osh Oblast	–	70.7	66.7	63.9	56.4	57.0	55.9
Talas Oblast	–	80.8	72.3	65.5	55.4	51.3	44.4
Chui Oblast		34.6	33.1	32.0	27.7	21.7	22.0
Bishkek (city)		40.6	31.5	31.7	22.5	16.5	10.8

