



NATIONAL STRATEGIC PLAN

FOR FISHERIES

2007 – 2013



Slovak Republic

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1. INTRODUCTION

This document is drawn up on the basis of the Council Regulation (EC) No. 1198/2006 of 27 July 2006 on the European Fisheries Fund (“Regulation on the EFF”), Communication from the Commission to the Council and the European Parliament – Strategy for Sustainable Development of European Aquaculture (COM/2002/0511) and Commission working documents and instructions „National Strategic Plan (Article 15 of the Regulation on the EFF)”. It describes the current situation in the fisheries sector and sets out an overall strategic vision of the Slovak Republic with regard to the development policy of this sector. It is consistent with the objectives of the Lisbon strategy relating to a more dynamic economy growth envisaged until 2010.

1.1 Geographic location

The Slovak Republic, with its total number of 5 384 822 (2004) inhabitants, situated in central Europe, covers the area of 49 036 square kilometres. Of this area, arable agricultural land takes up 24 446 km² (49.9 %), forest 19 964 km² (40.7 %), water areas 933 km² (1.9 %) and urban and built-up area 3 691 km² (7.5 %).

Some other European countries stretch over a similar area, e.g. Estonia (45 226 km²), Denmark (43 093 km²), the Netherlands (41 863 km²) and Switzerland (41 293 km²).

The territory of Slovak Republic ranges from 94 m (Bodrog outlet) up to 2 655 m (Gerlach summit) above sea level.

The Slovak Republic borders with large Poland in the north (547 km), Hungary in the south (669 km), Czech Republic in the north-west (252 km), Austria in the south-west (106 km) and Ukraine in the east (98 km). The state boundary is mostly created of natural landmarks, such as mountain ridges and water flows.

Slovak Republic lies away from the coastline. The nearest is the Adriatic Sea (distance 361 km). The Black Sea is 686 km far off. The distance to the Baltic Sea is 440 km.

The disadvantages of the inland location of the Slovak Republic are reduced to some extent by the access to the Black Sea via the Danube River and through the Rhine – Main – Danube Canal to the North Sea.

1.2 Physiographic situation

1.2.1 Hydrologic situation

The rivers flow eccentrically from the Carpathian ridge to all directions. The main European water divide between the Baltic and the Black Seas cuts across Slovakia.

96 % of the territory falls within the Black Sea drainage-area. Only a small area in the north (4 %) is drained to the Baltic Sea.

The Black Sea drainage area in the territory of Slovakia is divided among two main river basins. In the west, these are the rivers flowing into the Danube River on the Slovak territory (64 %) and in the east they are the rivers joining the Tisza River in Hungary (32 %).

The river network largely accommodates geologic and geomorphologic conditions

of the territory. The total length of registered watercourses in Slovakia is 49 774.8 km. Apart from the natural water flows, there are 7 518 artificial canals on the state territory. The average density of river network is 1.02 km per km².

Several water flows form the state boundary with the neighbouring states. The Danube River is not only the greatest river running through our territory; it is also the main river waterway. It has a drainage area of some 47 087 km² within the territory of Slovakia.

The largest Danube tributary is the Váh River with 406 km (including the Black Váh River). The total drainage area takes up 15 075 km².

The Tisza River drains the eastern third of the country by means of the rivers merging with it on the Hungarian territory. It touches upon the Slovak territory in the length of 7 km where it forms a part of the border.

The Dunajec River drains our territory into the Baltic Sea which in Poland feeds the Vistula River. Also, the Poprad River basin belongs to the Baltic Sea drainage area – it flows into the Dunajec River in Poland.

Artificial water reservoirs cover larger areas, reach higher depths and are more numerous than the lakes. Though the largest and most famous water reservoirs were built in the 20th century, the oldest ones originate in the 15th – 16th century. At that time they were used for fish farming, timber floating, as well as mining purposes.

Up to the year 2002, 54 larger (over 1 million cubic metres) and 284 smaller water bodies have been built in Slovakia, mostly on the Váh River.

Fish ponds are standard artificial water reservoirs. They were built for fish husbandry in the vicinity of towns and villages. They spread on an area of some 2 000 hectares. The Senné fish ponds in the district of Michalovce, and the Hrhov fish ponds on the border of the National Park Slovenský kras (Slovak Karst) account for some of the largest fish ponds.

2. GENERAL DESCRIPTION AND STRUCTURE OF THE SECTOR

In terms of the Council Regulation (EC) No. 1198/2006 on the EFF, the fisheries sector in Slovakia consists of aquaculture and fish processing. Slovakia as an inland country does not practise marine fishing, nor keeps register of a fishing vessel fleet or have suitable water areas for industrial inland fishing at disposal, nonetheless there is a long tradition in recreational fisheries. The standing of the fisheries sector in the national economy can be expressed in the GDP, to which it contributes with a share of 0.002 %. Despite of this relatively low share in the national economy, the fisheries sector significantly contributes to the protection and enhancement of the environment, preservation of genetic diversity and social non-production benefit from the structures used for fish farming – landscaping, flood protection, water retention and rural development. The employment in the sector constitutes a negligible part of all the inhabitants employed in Slovakia (0.00075 %) and due to dispersion its relevance within the national economy is very low.

Administrative and legal framework

The basic legal provisions governing the fisheries and the related sectors in the Slovak Republic are Act No. 194/1998 Coll. on breeding and reproduction of the farm animals and amending and repealing Act No. 455/1991 of Codex on trade entrepreneurship (Trade Act) as amended thereafter, Act No. 139/2002 Coll.

on fisheries as amended thereafter, Act No. 488/2002 Coll. on veterinary care and amending certain acts and Act No. 364/2004 Coll. on waters and amending Slovak National Council Act No. 372/1990 of Codex on legal offences as amended thereafter (Water Act). For a detailed list of the main legislative provisions relating to this field see Annex I.

Administrative capacities dealing with the fisheries in Slovakia at the level of central state administration within the context of preparing the programmes, are represented by two employees of the Animal Commodities Department in the Agriculture and Trade Section of the Ministry of Agriculture of the SR, beside them, fish processing is among the tasks of one of the staff at the Food Section. In the Structural Policy Department of the International Affairs Section, administrative capacities for the preparation of documents for the EU funds have been strengthened since the previous programming period, and at present three persons are engaged in the preparation of the fisheries programme (besides other assignments). Many other persons in the Agricultural Paying Agency are involved in the implementation of the EU programmes, engaging themselves in the preparation, selection, monitoring and evaluation of assistance and operations. Further, employees of other institutions carry out financial management activities (control, audit etc.).

In the research, the Research Institute for the Agricultural and Food Economy does not address the fisheries sector at all and at the Fisheries and Aquaculture of the Slovak Agricultural Research Centre in Častá, the research coupled with practical fish rearing is provided for by two research workers who are by far not capable of covering the growing amount of tasks which in the future might even increase, considering the development potential of the sector. Apart from that, there are isolated research projects under way at universities and high schools, these are not systematic and their results often do not have a significant practical impact on the production field. Collection of data, as well as monitoring of the sector, is equally limited and insufficient, and therefore does not provide a reliable and complex background information for the preparation of the programme and strategic materials for the development of this sector.

The status of the document is at the level of a strategic sectoral document which at the same time serves as a development concept for the fish farming in Slovakia at the level of the Ministry. It is adopted by the Government of the Slovak Republic at its meeting and subsequently submitted to the Commission for information.

2.1 Aquaculture

Aquaculture in Slovakia can be grouped into two specific categories (fields): fish pond management and trout culture.

Rearing of salmonids is predominantly developed across the north and middle Slovakia in the Váh, Turiec and Orava River basins; on the other hand the largest fish pond systems for rearing of lowland species of fish are located in favourable weather conditions of the southern part of eastern Slovakia, in western Slovakia and in region of Záhorie.

In terms of marketing of the final product placed on the market, both in fish pond management and in trout culture, it is possible to distinguish the production of market fish for direct consumption and production of fish stock material which can be used for further rearing or for restocking the water flows. In contrast to trout culture, where production of market fish for direct human consumption predominates, in fish pond management, production of fish stock material for restocking is presently more a significant part of the production.

According to the 2004 statistics, there are 481 fish ponds used for aquaculture in Slovakia, covering the area of 1600 hectares. For rearing of lowland species of fish (carp, crucian carp, bighead and silver carp, grass carp, pike, wels catfish and zander) there are another 59 small water reservoirs, originally built for another purpose, of some 500 ha. The average annual production in fish pond management is as high as 800 tonnes of fish. Similar situation is in the production of salmonids (trout, brown trout, grayling, huchen) in special fish farming facilities about the size of 153 772 m² (of which 2 304 m² is cage culture) and of a volume of 14 582 m³ reaches around 800 tonnes. The fish ponds and fish farming facilities which were built in the second half of the 20th century were in some cases built on the plots with unsettled ownership relations and in many cases this has remained open until now.

Presently, there are 70 registered fish producing entities in Slovakia with a licence for fish breeding issued by the Ministry of Agriculture of the Slovak Republic (MoA SR). Majority of the enterprises can be classified as micro-enterprises (often family-owned, with small production aimed at the local market). A distinctive feature of the Slovak Republic is the existence of enterprises for which aquaculture is not the main field of activity but along other activities they also produce fish (e.g. Slovak Water Management Enterprise, s.e., agricultural cooperatives, Forests of SR, s.e., State Forests of Tatra National Park, Military Forests and Lands of the SR, s.e.). Moreover, civil association Slovak Anglers' Association has been operating here for eighty years whose main mission is the maintenance of the fishing grounds in conformity with the Act on fisheries and relating restocking (for which it also uses its own farms producing fish stock material and generation fish); also it organizes recreational and sports anglers and works actively with the young. In addition, it participates in the legislation and expert judicial and advisory activities in the field of recreational fisheries as well as in research and publication activities in the field, it organizes international workshops and social events. With regard to the size of the sector and of the individual farms, their potential production and current market prices, the majority of enterprises (small and micro-enterprises in particular) are in a difficult economic situation. Their possibilities of creating investment resources are therefore relatively limited. In relation to loan drawing, fish farmers pose as clients with low financial standing to the banks. Natural and legal persons producing fish are organized in the Association of Fish Farmers in Slovakia (Združenie chovateľov rýb na Slovensku – ZCHRS). This breeding organization, recognized under Article 6 of Act No. 194/1998 Coll. on breeding and reproduction of farm animals as amended thereafter defends the interests of the fish farmers vis-à-vis the state administration in the field of fish farming. It organizes 17 members who represent a majority share in the total market fish production achieved in the aquaculture of the SR and they also own the majority of the fish farming capacities.

According to the available statistic data of the Statistical Office of the Slovak Republic, in 2004 there were 760 persons employed in aquaculture. Of this number,

231 persons worked full-time and the remaining 529 persons were working on agreement or as seasonal workforce. Women form a 14.6% share of the total number of employees. The fish ponds and special fish farming facilities are mostly located in rural areas and they are mostly family farms creating jobs for the members of the families as well as for the rural residents, thus even this relatively low employment rate in the sector has its significance.

2.2 *Animal health*

In the long term, the territory of Slovak Republic has been free of infections. This is due to the fact that the majority of the farms keep closed fish stock turnover and that the import for farming purposes is regulated by relevant legislative framework. Only fish stock material originating from the MoA SR licensed fish farms may be used in the fish rearing pursuant to Act No. 139/2002 Coll. on fisheries as amended thereafter and Act No. 194/1998 Coll. on breeding and reproduction of farm animals as amended thereafter. Regular monitoring of occurrence of selected dangerous infections listed in Annex 2 to the SR Government Ordinance No. 303/2003 Coll. is carried out by the authorities of veterinary administration and by the State Veterinary and Food Institute in Dolný Kubín, which is a national reference laboratory for fish diseases and national reference laboratory for monitoring of marine biotoxins.

2.3 *Processing of fish*

Fish processing companies are evenly spread over the entire territory of the Slovak Republic. Majority of them are medium enterprises (according to the definition of the Commission Recommendation 2003/361/ES). Freshwater fish are being processed in small enterprises. The capacity of the processing facilities for freshwater fish is 855 tonnes; however the annually processed volumes do not exceed 350 tonnes. The capacity for marine fish is approximately 22 000 tonnes but the annual processed volumes are about 14 000 to 15 000 tonnes.

Large part of the production activities of these enterprises is oriented at processing of imported products of marine fisheries and aquaculture. Trout is the main processed freshwater product of fish farms. In terms of price, sea products, mainly of cod species, are more advantageous for the consumer. The price of freshwater fish persists high due to the absence of state subsidies and to poor conditions of technical equipment used in the production.

Within the legislation in force, 9 processing companies have been approved for fisheries and aquaculture products (of which 3 are focusing mostly on freshwater fish). The processing facilities are approved by the State Veterinary and Food Authority of the Slovak Republic and at the same time, it controls observance of all hygienic conditions, traceability and methods for withdrawing of dangerous foodstuffs in accordance with the EU legislation.

Accession to the EU and associated mandatory compliance with the EU requirements resulted in the reduction in number of enterprises from 21 (in 2003) to the present 9. Thus, by the entry of the SR in the EU, fish processing was the most affected sub-sector within the entire fisheries sector. As a consequence, falling numbers in

employment terms have been experienced in the recent years. In contrast to 2002, with 1 017 persons in employment, the numbers went down in 2004 by 17.2% (to 868, of which 506 were women).

2.4 Market and consumption

The consumption of fish in Slovakia has long been maintained at around 4.3 kg per capita a year, out of which less than a kilogram accounts for the freshwater fish. Of this amount around 0.3 kg per capita a year is supplied by catches in the recreational fisheries. Domestic aquaculture production of fish can cover the lesser part (around 40 %) of the freshwater fish consumption. Major part of Slovak consumption is met by import.

In 2003, there were 1 680 tonnes of live freshwater fish imported to Slovakia (95 % of which was carp from Czech Republic) and 12 500 tonnes of marine fish.

The annual export of freshwater fish averages out to 350 tonnes of live fish and 65 tonnes of fresh, chilled and frozen fish. Around 300 tonnes of (secondarily) processed marine fish are re-exported every year.

Placing of freshwater fish (i.e. fish farmers produce) on the market is predominantly done in live (about 80 %). Most of the fish produced is sold towards the end of the calendar year, in connection with the typical harvesting of fish ponds and seasonal demand.

Indirect supplies prevail within the distribution where the goods from the producer reach the consumer through different intermediaries (trade organizations). There are two- and three-stage forms of trade to be found. In the two-stage trade, products are being sold to the small retail businesses which offer them to the final consumer. In the three-stage trade, goods are sold to the wholesale retailers which then supply the small retail businesses and these sell them on to the final consumers. Major part of the production is being marketed in the two-stage form of trade, with the products being sold to the final consumer mostly through retailers' chains.

Taking into account the need to adapt to the common European market, Slovakia has created possibilities to support the establishment of producer organizations (national aid and pre-accession Community aid – within the SAPARD programme) for the aquaculture. So far one producer organization has been created to improve the marketing of salmonids and approved under the SAPARD programme, whose activity was set to be launched in 2006. Creation of another similar organization for lowland species of fish is considered.

There has not yet been a national campaign in Slovak Republic to promote the consumption of freshwater fish and fish products. In recent years there were only a few promotion campaigns for specific products of selected companies processing marine fish.

2.5 Education, science and research

The keystone in aquaculture education is the Joint Agricultural High School (Združená stredná škola poľnohospodárska) in Ivanka pri Dunaji, which provides higher education with school leaving examination in fisheries specialization for about 20 graduates a year. 60 to 80 students complete each year internal or distance courses for the adults. Vocational education for fisheries workers has since 1992 been provided by the Joint Agricultural and Fisheries High School (Združená stredná škola poľnohospodárska a rybárska) in Mošovce (about 15 school leavers a year), which also offers extensional graduation studies for school leaving examination with the specialization in fisheries (around 15 graduates a year). It also provides individual distance interest courses awarding a vocational certificate to obtain a trade licence with about 8 graduates a year; and as from September 1, 2007 it launches full-time higher education with school leaving examination in fisheries specialization. Within the school, 2 fish farms and an internal fish processing facility with assigned EU number are operating. Fish Farming, Fisheries in Free Waters, Fisheries and Management of Fish Farming are the subjects taught at the Slovak Agricultural University in Nitra. Lectures in fisheries and fish farming are presented also at the Technical university in Zvolen (Forestry Faculty) and University of Veterinary Medicine in Košice. Our students leave for Czech Republic in order to receive a comprehensive university education in fisheries.

Research activities in fisheries and aquaculture are carried out independently from each other at various universities (at the Slovak Agricultural University in Nitra, at the Faculty of Natural Sciences of the Comenius University in Bratislava, at the Veterinary University in Košice, at the University of Prešov), in the Slovak Academy of Sciences and also at the Station of Fisheries and Aquaculture (Pracovisko rybárstva a akvakultúry) of the Slovak Agricultural Research Centre (Slovenské centrum poľnohospodárskeho výskumu) in Častá, previously Research Institute of Animal Production (Výskumný ústav živočíšnej výroby). This Station explores the possibilities for artificial farming of the endangered sterlet (its artificial reproduction, possibilities for rearing of its fish stock and mostly creating of a closed fish stock turnover – i.e. raising of own generation school capable of further propagation). The aim of the rearing of generation fish is to provide for self-sufficiency in the production of fish stock of this authentic species intended for restocking of rivers where it previously naturally occurred (the Danube and its tributaries), as well as production of fish stock for further rearing. The Station of Fisheries and Aquaculture also participates in the conservation of this last sturgeon-like fish presently occurring in the territory of the SR within the framework of an international project “Action Plan for the Conservation of Sturgeons in the Danube”. In addition, Slovak Ichthyology Society (scientific society) has been registered recently which associates experts in the field of fisheries and this will determine various forms of cooperation in research activities.

A national programme of complementary education in fisheries does not exist in Slovakia, although there is an opportunity to obtain education in fisheries offered by the aforementioned institutions. Interconnection with previous education in a given field is a drawback of some of these. The need to offer possibilities of life-long learning is highlighted by the fact that many of the fish farmers have limited access to the latest information concerning their business which applies most notably for

family type micro-enterprises. Here, there is a room for the implementation of different specialized courses for particular interest groups tailor-made to their needs.

2.6 Restocking and recreational fisheries

As mentioned earlier, a significant part of Slovak aquaculture fish production is used for stock enhancement of water flows. Regular annual restocking is crucial for preserving the ecological balance and biodiversity of the original species, given the negative anthropogenic impact and associated restrained possibilities of self-reproduction of fish in Slovak waters.

In the past years, winter raids of the cormorants have been causing substantial damage in the ichthyocenosis of the middle and north Slovak rivers (Orava, Váh, Hron, Turiec), which adversely affect the biodiversity of the river ecosystems. Organizations, on which the Ministry conferred the execution of anglers' right pursuant to Article 4 (3) – (6) of Act No. 139/2002 Coll. on fisheries, release around 1 500 tonnes of fish stock material (lowland species) and 3 000 000 pieces of salmonids fish stock into water flows every year. At present, the Slovak Anglers' Association is the biggest producer of fish stock material, amounting to 500 tonnes a year in 17 farmed fish species. Around 1 500 – 1 700 tonnes of fish is caught yearly by some 120 000 recreational anglers organized in the Slovak Anglers' Association.

2.7 Environment

The fisheries sector and the environment are in mutual interaction. The quality of the production directly depends on the quality of its environment. The quality of water, degree of its pollution, oxygen content in water and the level of agricultural and industrial activities are the primary factors influencing the quality and the amount of production, or alternatively the precondition of the presence of any ichthyofauna. Fish farming has an influence on the landscape, water regime, structure of the fish genetic resources, as well as fauna and flora in the vicinity of water surfaces. As regards the control of the cleanliness of the aquatic ecosystems, fish and aquatic organisms have a significant bio-indicative function; and accordingly, under present circumstances, maintenance of the water quality and regular annual restocking appears inevitable.

Engineering solutions of some fish farming facilities, particularly in terms of water supply, constitute migration barriers for fish and other water organisms. Uninterrupted migration to spawning grounds is one of the prerequisites for sustainable development of aquatic ecosystems. Fish producers are starting to participate in water ecosystems revitalization programmes, prepared by the Ministry of Environment. It is necessary to encourage the introduction of environmentally friendly production methods and technological solutions minimizing the environmental impact, such as e.g. the revitalization project of the Revúca River, carried out from 2003 till 2004, which involved also fish farmers. In the case of disruption of the river-beds and banks by the anthropogenic activity, it is vital to remember to secure the elimination of the consequences through implementing revitalizing measures from the relevant appropriate resources.

The Government of the Slovak Republic in its Decree No. 636/2003 approved the National List of 38 proposed Protected Bird Areas (PBA). PBAs are a category of protected territory, introduced in the national legal system in the context of transposition of Council Directive No. 79/409/EEC on protection of wild birds. They are designated to protect the habitats of birds of European Community interest and migratory birds' species with a view to securing their survival and reproduction. The total area of PBAs takes up approximately 25 % of the state territory. Almost 1 500 ha of fish ponds and fish farming facilities, utilised by the fisheries sector, are situated within the proposed PBAs. Inclusion of the production fish ponds into the PBAs may result in certain constraints for the fish farmers (e.g. controlled drainage of fish ponds, restraining the silt removal from the fish ponds, cutting the bush-grass, substantive elevating of water levels), some of them limited to a certain period within the year (i.e. in nesting season).

Complying with the conditions defined in the designated Protected Bird Areas will impair the utilization of fish ponds for their original purpose, or alternatively may even lead to the liquidation of the fish farm in some cases.

Protected piscivorous predators (cormorant, grey heron, river otter and others) cause increasingly more damage at present. Majority of the fish farms are not sufficiently equipped against these predators. Compensation of the damage in the fish farms (in aquaculture) is provided for by the Act No. 543/2002 Coll. on nature and landscape protection. For the period of its effect, 5 compensation claims have been filed during the period of 2002 – 2005 for the damage caused by otter and cormorant and the fish farmers received SKK 951 755 from the Ministry of Environment of the SR (in 2003), SKK 175 200 (in 2004) and SKK 195 820 (in 2005).

Water management is governed by the Act No. 364/2004 Coll. on waters and repealing Slovak National Council Act No. 372/1990 Codex on legal offences as amended thereafter (Water Act), which permits the exploitation of surface and underground waters for fish farming provided a special licence is granted. In terms of this Act, water used in and discharged from the fish farms is not deemed to be used water. Inlet and exploitation of the surface and underground water in fish farms is not subject to payment.

3. SWOT ANALYSIS OF THE SECTOR AND ITS DEVELOPMENT

<p style="text-align: center;">STRENGTHS</p> <ul style="list-style-type: none"> ▪ Closed fish stock turnover ▪ Use of the fish stock (restocking) material only from licensed farms ▪ Territory of Slovakia free of infection in the long term ▪ Multifunctional utilization of fish farming facilities ▪ Using the fishing grounds by general public for recreational purposes ▪ Sufficiency of processing capacities complying with the current EU standards ▪ Quality of products ▪ Existence of an organization coordinating the interests of recreational anglers 	<p style="text-align: center;">WEAKNESSES</p> <ul style="list-style-type: none"> ▪ Stagnating production system of farms as a result of deteriorating infrastructure and technological equipment and increasing siltation of water areas used for fish farming ▪ Absence of IT (hardware, software) needed to keep zootechnic records ▪ Unresolved ownership relations of plots under the water areas used for fish farming ▪ Lack of financial resources ▪ Insufficient interconnection between research and practice ▪ Absence of life-long learning ▪ Poor promotion of aquaculture products ▪ Thin assortment of products
<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> ▪ Strengthening of genetic resources ▪ Protection and development of aquatic fauna ▪ Introduction of new species in aquaculture ▪ Involving farmers' businesses in the tourism and leisure activities at the regional level ▪ Possibility of direct sale at the farm in live and/or prepared form ▪ Processing of new species in aquaculture ▪ Joining the new markets ▪ Healthy food-stuff 	<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> ▪ Expanding and building-up of damages caused by protected piscivorous predators ▪ Loss of production or increased costs resulting from respecting the conditions for protection of NATURA 2000 areas ▪ Insufficient support of science and research, absence of systematic monitoring of ichthyofauna and evaluation of its state ▪ Outputs of the water-management concept (Water Act) for the next period – threat of introducing charges for water inlet for the fish farmers as part of the implementation of the EU Water Framework Directive and integrated river-basin management ▪ Missing state support in the sector ▪ Spreading of new diseases ▪ Low fish consumption ▪ Price competition of imported aquaculture products

The following text explains in greater detail all the headings listed in the SWOT analysis.

Strengths:

▪ **Closed fish stock turnover**

Majority of notable farms applies a closed turnover of fish stock in farming of fish which provides for infection-free situation on the farm. The fish farmer has thus good control of the health condition of the rearing material and the fish are well adapted to the local environment which increases the quality of farming.

▪ **Use of the fish stock (restocking) material only from licensed farms**

The Act on fisheries and the Act on breeding and reproduction only allow using fish stock material from MoA SR licensed farms where the origin of the generation material is known and which are under regular veterinary supervision. This provides for a certain quality standard in the fish farms and by issuing the licenses, MoA SR gathers the necessary data on the situation in aquaculture, on the location of fish farms and on the amounts produced.

▪ **Territory of Slovakia free of infection in the long term**

In the long-run, no infection diseases have been found within the territory of Slovakia. The system of veterinary control is well designed and besides checks on fish there are also controls of the feed, water, occurrence of common diseases and using of medicated feed.

▪ **Multifunctional utilization of fish farming facilities**

Apart from the fish production, fish pond surfaces may serve for other non-production purposes in public amenity interest, e. g. for the accumulation of water in the countryside, deposition of erosion wash-offs, flood prevention, they have positive impact on the micro-climate and landscape.

▪ **Using the fishing grounds by general public for recreational purposes**

Important part of the natural environment are the fishing grounds which require good care for preserving the fish populations corresponding to the natural conditions, or expanding the fish populations by the protected and endangered authentic species in line with the environmental requirements. The fishing grounds fulfil also various social functions, e.g. they serve for recreational activities (such as water sports), for ecologic education and positively influence mental and physical relaxation of a man.

▪ **Sufficiency of processing capacities complying with the current EU standards**

Majority of the processing enterprises have made use of the pre-accession assistance, as well as the assistance provided in the programming period 2004 to 2006, to finance investments aiming at complying with the relevant EU standards (e.g. hygienic standards). Capacity of these facilities at present exceeds the existing need in the domestic market and also volume of export.

▪ **Quality of products**

To maintain stable quality of products, fish farms placing their products on the market must adhere to the good production practices. Respecting the HACCP is regularly monitored, observation of the defined parameters of all the production inputs (water, air) is scrutinized, regular checks of feed and fish are in place, as well as of fish leaving the farm. The State Veterinary and Food Authority of the Slovak Republic controls hygienic conditions on farms,

as well as on the food processing establishments and approves the food processing facilities.

▪ **Existence of an organization coordinating the interests of recreational anglers**

There is relatively substantial interest in recreational fisheries in Slovakia, and in maintenance of the fishing grounds. A long-acting organization with a stable membership united by a joint interest in the development and exploitation of the recreational and sports angling, exercising the anglers' right in conformity with the Act on fisheries, in the nature and environment protection where related to the fisheries, conservation of the ecology of water and of surrounding nature and in preservation of the genetic resources of fish.

Weaknesses:

▪ **Stagnating production system of farms as a result of deteriorating infrastructure and technological equipment and increasing siltation of water areas used for fish farming**

As a result of the absence of the financial assistance in the sector, it was hardly possible to finance investments in the improvement and modernization of the infrastructure and technologies, neither in silt removal of the fish ponds and other water surfaces used for fish farming. High sedimentation rate considerably reduces their production potential.

▪ **Absence of IT (hardware, software) needed to keep zootechnic records**

The current zootechnic records are dissatisfactory due to the non-uniform manner of its keeping. Not all of the data are available, the records are being kept in paper form; the interconnection of the fish farmers with the Ministry and access to the latest information and trends in the sector are missing.

▪ **Unresolved ownership relations of plots under the water areas used for fish farming**

Unresolved ownership relations of the plots prevent the fish farmers from implementing their investment plans.

▪ **Lack of financial resources**

Bad technical state of the enterprises results in high cost production creating low profits. This situation does not enable financing own investments and the enterprises are experiencing difficulties in acquiring external resources, such as credits etc.

▪ **Insufficient interconnection between research and practice**

The science does not tackle the acute needs of the practice. There is a shortage of applied research intertwined with the emerging sector needs. Engaging the scientists and researchers in advisory services is also inadequate.

▪ **Absence of life-long learning**

The segment of life-long education is poorly developed in Slovakia, the consequence of which is that the practice falls behind the progress and lacks competitiveness.

▪ **Poor promotion of aquaculture products**

Insufficient promotion of products has an adverse impact on the entire fisheries sector. The stimulation of the consumer to purchase is failing; the possibility of demand creation is undervalued, as well as generating of new needs. The overall target-oriented communication coverage of the potential purchasers aiming at mediating the information, evoking a certain conception, forming a positive image of the sector and its products is very modest.

▪ **Thin assortment of products**

Weak assortment policy of the enterprises in the whole production programme reaffirms that the sector is slow and inflexible in accommodating the needs and preferences of consumers.

Opportunities:

▪ **Strengthening of genetic resources**

By controlled import of generation fish it is possible to strengthen the domestic genetic resources without posing a threat to the current infection-free status.

▪ **Protection and development of aquatic fauna**

It is not advisable to rely on the natural reproduction of the main species of fish in the changed conditions of aquatic ecosystems, with the degradation of the natural conditions of the fish environment by the human activities. Implementing of measures with a broader scope than those normally undertaken by private enterprises is in the common interest. In particular, it relates to the construction or installation of static or movable facilities intended to protect and develop aquatic fauna and flora, or the rehabilitation of inland waters, including spawning grounds and migration routes for migratory species of fish. Biotopes damaged by the human activities need to be revitalized either by the removal of the artificial obstacles in watercourses and where this is not possible, by the construction of new or adjusting the non-functioning fish-leaps. Improving the effectiveness of the said also appears feasible by implementing measures to enhance biodiversity (e. g. adjustment of the river bed profiles and river banks for the ichthyofauna to gain the most burrowing, feeding and reproduction opportunities possible).

▪ **Introduction of new species in aquaculture**

Up to now, the aquaculture production has been focusing mostly on the farming of carp and trout. The lack of fish in water flows, new trends and growing demand for new species are an opportunity for diversification towards farming of new species, i. e. species for which the aquaculture production in the SR is low or inexistent with good market prospects, such as sturgeon, zander, huchen, crayfish etc.

▪ **Involving farmers' businesses in the tourism and leisure activities at the regional level**

Extension of activities in farming businesses with the focus on the tourism may potentially become a supplementary source of income and lower the dependency of the enterprise economics on the primary production function and on the seasonal character of the business activity. The inflow of tourists also provides room for maintaining the employment in the region, or even for creating of new jobs by implementing related cooperation projects and thereby gives a perspective of sustainable development of the region in question.

▪ **Possibility of direct sale at the farm in live and/or prepared form**

Direct selling of the fish on farm would bring about several opportunities and advantages to the farmers. These include mainly direct contact of the producer with the consumer, reducing the time necessary for transport and cutting down the costs. The farmers might sell their products either in live or prepared state since the current consumer preferences are aimed at products with higher value added.

▪ **Processing of new species in aquaculture**

Introduction of new species in aquaculture implicitly constitutes the opportunity for their processing and expanding the existing assortment offered on the market.

▪ **Joining the new markets**

Access to new markets is a great challenge for Slovak enterprises. An opportunity is open to find a solution for the present surplus processing capacities. New markets are a good chance for Slovak farmers producing quality products by means of which they can establish their position on the market and strengthen it with time.

▪ **Healthy food-stuff**

Favourable ratio of the essential amino-acids in the proteins, high content of vitamins (mainly of D and A group), microelements (phosphorus, selenium, zinc) and content of unsaturated fatty acids make the fish-meat a healthier and more easily digestible alternative in human diet. Its invaluable effects should be recognized first and foremost by patients with cardio-vascular diseases or obesity but also all the other people in prevention of civilization diseases (like cancer) who should not leave fish out of their diet.

Threats:

▪ **Expanding and building-up of damages caused by protected piscivorous predators**

Together with the growing presence of predators, the damages caused by them to the farmers are steadily growing accordingly. The fish farming facilities are not sufficiently equipped against these predators.

▪ **Loss of production or increased costs resulting from respecting the conditions for protection of NATURA 2000 areas**

Complying with some of the requirements set in the designated protected areas may make it impossible for the farmers to use normal production methods, restrict the utilization of fish ponds for their original purpose, and may lead to partial or full drop-out in production and considerable rise in the costs.

▪ **Insufficient support of science and research, absence of systematic monitoring of ichthyofauna and evaluation of its state**

Insufficient support of science and research from the state leads to the stagnation of the sector and inhibits the development and implementation of new technologies, which could provide for more affordable and cost effective production methods. The absence of systematic monitoring of the ichthyofauna results in deficient monitoring of the occurrence of species in waters and can bring along possible dissemination of undesired unauthentic species.

▪ **Outputs of the water-management concept (Water Act) for the next period – threat of introducing charges for water inlet for the fish farmers as part of the implementation of the EU Water Framework Directive and integrated river-basin management**

Introducing a fee for the water inlet would mean additional costs of production (increase) which is already on the verge of profitability. Apart from limitation of the resources for further investments and expanding of the production, in some cases a threat of terminating the farming activity, draining of the fish pond and conversion to other form of farming is thinkable.

▪ **Missing state support in the sector**

State subsidies ceased to be granted in the sector taking into account the lack of financial resources since the accession of the Slovak Republic to the EU. The fish farmers may only make use of the EU funded programmes to co-finance their investment projects.

▪ **Spreading of new diseases**

Nowadays, new exotic diseases are appearing, which have not done so before within the territory of Slovakia and they spread rapidly and may seriously jeopardize the aquaculture sector. Despite of well established control mechanisms, it can prove difficult to stop them from spreading (e. g. koi herpesvirus) and it will be necessary to direct attention of the fish farmers to information on the possibilities of preventing the spreading of new viral, bacterial and parasitic diseases.

▪ **Low fish consumption**

In spite of its beneficial dietetic effect on human health, the fish-meat is not receiving adequate attention in our nutrition. A big drawback is surely an indifferent attitude to the promotion of its positive impacts, be it on the part of the government department for health or for agriculture, too, an undeveloped tradition in consuming of fish in inland countries and most importantly, an impaired price affordability of fish and fisheries products, which could be the main causes of the inclination of the population towards buying cheaper and more available meat or food-stuffs in general.

▪ **Price competition of imported aquaculture products**

Cheap import of aquaculture products poses a serious threat to the domestic producers, as they can not meet the price competition. It is a consequence of a combination of better technical state of the facilities and state subsidies which allow the producers from the main importing countries to produce at lower costs and thus opening them a space for price competition to take advantage of on the target markets.

4. PRIORITIES AND OBJECTIVES OF THE SLOVAK REPUBLIC

Based on the assessment of the current situation in the fisheries sector, several development opportunities are ensuing from the SWOT analysis. From among these, the Slovak Republic has set out those strategic priorities which it considers the most important and which it with regard to the sectoral objectives and available resources anticipates to achieve by 2013.

Vision by 2013:

Sustainable and competitive fisheries sector

4.1 Aquaculture

Strategic priority

Support for aquaculture in relation to its modernization, innovation and restructuring, taking into account its sustainable development

Objectives:

- Improvement of the utilization of production capacity,
- Encouraging the rearing of new species,
- Introducing environmentally friendly technologies,
- Supporting the enhancement of the specialized knowledge,
- Support of direct local distribution by construction of small sales places adapted to prepare and sell the aquaculture products within the premises of the fish pond or fish farming facility,
- Support of building new fish farming facilities and fish ponds primarily on locations with worse soils.

4.1.1 Trout culture

Rearing of salmonids has markedly moved towards improved rearing technologies and know-how throughout the world. Majority of the fish ponds and fish farming facilities for salmonids in Slovakia were built in the second half of the 20th century using the knowledge on fish farming available at that particular time. The technologies of these facilities are outdated nowadays and do not correspond to the trends focusing on minimising the production costs or limiting the necessity of human labour and more effective utilization of all energy sources. Support must be oriented also at the reconstruction of fish farming facilities, completion of the missing infrastructure or other production objects.

Production of fish stock material

Aquaculture is a domineering supplier of fish stock material, used not only for the production of market fish but also for restocking of water flows (support from the EFF may not be used for direct restocking – Article 38 of Council Regulation (EC) on EFF and neither is it part of the MoA SR responsibilities). Fish farms should be completed with buildings for rearing of juvenile fish until it is big enough for further raising, i.e. for on-growing the fish-hatchery

product up to the desired size ensuring lower losses after their planting in water.

It is essential to keep closed fish stock turnover in the production and only use fish stock material from licensed farms with constant veterinary supervision for stock enhancement and further rearing. To enhance the quality of existing generation fish schools, it is useful to supply controlled intake of genetically pure breeding fish.

With regard to new veterinary requirements, suitable independent and safe source of water for farms and especially fish-hatcheries should be secured (own well, fish-free brook, or alternatively one with counter-current migration barrier, or facilities improving the quality of in- and out-flowing water).

Production of market fish for direct human consumption

In the production of market fish, it is our objective to rationalize (make more effective) the production processes in the enterprises or fish farms in order for the fish farmers to be competitive with their production costs on the common market. This goal can be achieved by reconstruction of present fish farming facilities or by completing the missing technologies, infrastructure or other production objects. It is also vital to support diversification of activities through involvement of fish farmers in the development of tourism within the region and local community (agro-tourism) making use of their farms or of fishing grounds.

4.1.2 Fish pond management

Owing to the past management system with primary agricultural production at the top of agenda, sedimentation of fish ponds and fish farming facilities took place due to water erosion. This could not be influenced, nor prevented by the fish farmers. Because the Slovak Republic is not self-sufficient in the production of market fish, nor fish stock material, it is essential to pay increased attention to the development of fish pond management – by improving the technical state of the fish ponds and fish farming facilities having regard to their initial planned size, shape and capacity, otherwise the present neglected and dissatisfactory state is limiting for the production volumes and threatening for the fish populating the ponds. Building of new fish pond systems is not excluded, particularly in the areas with lower quality soils.

It will therefore be crucial to adequately reconstruct and remove silt from as many water surfaces serving for fish farming as possible, and renew technologies and thus lessen the strenuousness of work for the people employed in fisheries, reduce the need for human labour and replace it by mechanization, which will lead to the rise of the effectiveness and productivity and at the same time to improvement of the living conditions for the fish.

Production of fish stock material

In production of fish stock material, conditions for reproduction and rearing of new species in aquaculture need to be created (e.g. chub, launce, burbot) to provide for restocking of water flows (support from the EFF may not be used for direct restocking – Article 38 of Council Regulation (EC) on EFF and neither is it part of the MoA SR responsibilities). In this field we need to concentrate on expanding the existing facilities with fish-hatcheries for artificial reproduction.

In rearing of the fish stock and fry, the conditions need to be improved so as to avert the risk of a die-off and damage to the fish, for instance through building a trap underneath the dam and building special hibernation ponds for fish stock. Intensive rearing of fry and introduction of modern rearing methods are necessary in the traditional rearing of lowland species of fish. With regard to new veterinary requirements, suitable independent and safe source of water for farms and especially fish-hatcheries should also be secured in this segment of aquaculture

(own well, fish-free brook, or alternatively one with counter-current migration barrier, or facilities improving the quality of in- and out-flowing water).

Production of market fish for direct human consumption

Taking into account the lack of fish ponds and failure to cover the domestic consumption of carp with own production, it is our goal and priority to revitalize the existing production units with the aim of achieving their planned capacity as well as to support expanding of the rearing to introducing less conventional species of fish with good market prospects (zander, pike, sturgeon, wells catfish).

4.1.3 Preparation of fish

The missing link seems to be better finalization of the production in smaller farms and approaching consumers at regional level. For this reason it has proven necessary to support establishment of small sales places located directly within the premises of the fish farms equipped with facilities allowing preparation of fish (e. g. dissection), through which the prepared products could be directly distributed to the final consumer at the local market.

4.1.4 Environmental aspects

Legislation imposes increased demands in relation to environmental protection and to water management as regards minimising of the adverse impact of all kinds of anthropogenic activities including fish farming. The criteria and restrictions are defined in line with the EU Water Framework Directive, EC Habitats Directive and EC Birds Directive. The production of fish at the moment meets the environmental requirements (often also the very requirements set in some ordinances designating the protected birds areas), it is essential however, to develop methods targeted at sustainable development and to introduce new methods in intensive fish farming.

In the future, it will be vital to subsidize the construction of filtration or sedimentation units at the farm inlet or outlet, construction of a diversion ditch for improving the quality of water, introduction of IT for management and control of water quality.

Support will be aimed at securing new or additional water sources for the farm for the sake of improving the care of the fish populations, by building new inlet ditches. To spare water, construction of re-pumping stations, filtration and recirculation equipment enabling reuse of water will be supported.

In the waste treatment, it will be possible to support the disposal of biological waste or contaminated sediments.

A sharp drop in numbers of some fish populations has been noticed in the recent years in the water flows (brown trout, grayling, nase, chub). One of the reasons for this might be expanding of the piscivorous predators (cormorant, heron, otter...) to geographically new territories in larger numbers. Due to this expansion of the predators, the production in fish farming facilities (in particular those producing fish stock material) is also greatly compromised. Support shall be aimed at suitable and thoughtful safeguarding of fish farming facilities against the intrusion of these predators (by attaching a rope and net system or other mechanical obstacles, by application of registration, signalling and deterring devices etc.).

In assessing the territorial systems of ecological stability, the Ministry of Environment of the SR by means of its local environmental authorities proposes technical measures with a view to preserving the sustainable balance and productivity of the countryside. In particular locations it adopts e.g. measures to facilitate migration of fish or to protect habitats of local

importance. It is useful to assist the fish farmers in participation in such projects.

4.1.5 Veterinary aspects

The most important task in order to secure animal health will be to encourage the fish farmers in participating in the monitoring and vaccination programmes, approved on the territory of the Slovak Republic and to mobilise financial resources for compensation of incurred losses and expenses associated with the out-break and eradication of contagious diseases in compliance with the EU legislation.

4.1.6 Human resources

Education

The capacity of educational institutions for training the future fish farmers for the needs of Slovakia is sufficient. In the years to come, we will need to focus on life-long learning programmes for the fish farmers with respect to the latest scientific knowledge. This field has not been purposefully pursued. The key education areas include new farming technologies, nutrition of fish, new species of fish, enhancing the hygienic and qualitative standards in aquaculture, improving the opportunities of placing the products on the market and informing the fish farmers about the upcoming aquaculture legal instruments.

Employment

A more extensive management of production surfaces is being observed as a result of the overall economic situation in agriculture as well as restrictions relating to the protection of water and nature, which jeopardizes the employment in the aquaculture and its sustainability. By 2013, we have an aim to maintain the employment in the sector at present level, or to create conditions for its slight increase.

Strategic indicators:

- Expected evolution of the value-added per job in aquaculture,
- Development over time (growth rates) of domestic aquaculture production in tonnes and in value (SKK), overall and individually for the main species.

4.2 Processing of fish

Strategic priority

Increasing of the competitiveness of the enterprises processing the fisheries and aquaculture products with the emphasis on supporting the processing of domestic produce

Objective:

- Improvement of the utilization of existing processing capacity

4.2.1 Processing of fish

The existing fisheries processing capacities, as to the volume of fish produced and to the level of consumption, satisfy the needs of the Slovak Republic. The aim in the future period will therefore be to support investment without increasing the production capacities, focusing on the existing processing plants – mainly purchase of technologies with the aim to modernize the production and to extend the product assortment.

Freshwater fish processing enterprises are presently focusing chiefly on processing of the trout production. It is necessary to aim appropriate attention at expanding of the exploitation of the existing capacities to other freshwater fish species which have in other countries noted interest on the market, such as carp, zander and sturgeon.

By targeted support of the modernization of the production facilities, a gradual decreasing of costs should be achieved, and thus also of the price of the final product which might in the coming years have a positive influence on the competitiveness of the Slovak products of fish processing vis-à-vis the imported ones.

Strategic indicators:

- Expected evolution of the processed production in tonnes and in value (SKK),
- Expected evolution of the value-added per job in processing.

4.3 Marketing

Strategic priority

Development of the market in the fisheries sector

Objectives:

- Improvement of the image of the fisheries sector,
- Organization of promotion campaigns,
- Fostering cooperation of the enterprises in the sector.

Non-availability of market research in fish has been apparent for several years. The aim in the following period will be the promotion (to improve the image) of the freshwater fisheries sector of the Slovak Republic and marketing of the products thereof, e.g. on the basis of the findings arising from the market analysis. A national analytical study will be needed to examine the situation in fish consumption, to review eating habits of the population and consumer preferences, to assess the existing distribution channels etc. to name just a few. The analysis should also outline the causes of the current state and offer a proposal on how to improve the situation.

The aquaculture fish farmers still have not started making use of the common marketing through the producer organizations which gives them a disadvantage in attempting to join the common Community market. Despite support programmes previously prepared, only one producer organization has been created in Slovakia since 2000.

As a result of the current changes taking place on the market, it is obvious that there is a need to work together in order to strengthen the position on the market. That is the reason fish farmers are beginning to explore the possibilities and benefits of creating producer organizations. Existence of such organizations makes it possible to set off the absence of the economy of scale typical of the big producers and it prevents the fluctuation in the offer. Co-operation among the fish farmers plays therefore a significant role in the commercialization of the products.

Is it important to stop focusing on the production and concentrate rather on commercialization of the products using market oriented management. The fisheries sector should get nearer to the consumers and to the various distribution channels with the view to better understand their needs or to be able to anticipate them. Similarly, a more dynamic management offering wider variety of products should be exercised. In this context, it is also relevant to face new challenges like the entry on the new markets.

Strategic indicators:

- Change in the fish consumption of the population,
- Change in the volume of fish sold.

5. RESOURCES FOR IMPLEMENTATION OF THE NATIONAL STRATEGY

An overall estimate of the financial resources that are available for the period of 2007 to 2013 to implement the national strategy as of 16 October 2006, broken down between national public funds and Community funds (exclusive of the contribution allocated for technical assistance)

Table

in EUR in current prices

	EFF	State Budget of the Slovak Republic	Other public funds
Expected contribution for the implementation of the national strategy	13 688 528	3 673 899.25	0

The table may be subject to a revision after the changes in the national support of the fisheries sector.

6. DEVELOPMENT, IMPLEMENTATION AND MONITORING OF THE NSP

Development of the NSP

To ensure proper and adequate preparation of the National strategic plan for fisheries and to carry out appropriate internal consultations at the level of all ministries and partners concerned, a working group for the EFF was established in August 2005, which on the principle of partnership pursuant to Article 8, Chapter III of Council Regulation (EC) No. 1198/2006 on EFF has the purpose to discuss the objectives and priorities of the fisheries sector in respect to the Common Fisheries Policy, national strategy of the Slovak Republic for the development of the sector, measures to implement the fisheries and aquaculture policy of the SR and other matters related to the preparation of the Slovak Republic for drawing of the financial resources from the EFF in the programming period of 2007 – 2013.

The working group is chaired by the Director General of the International Affairs Section of the Ministry of Agriculture of the SR, which is the Managing Authority for the present Sectoral Operational Programme Agriculture and Rural Development 2004 – 2006 (financed from the Guidance section of EAGGF and also from FIFG) and for the Rural Development Plan (financed from the Guarantee section of EAGGF).

In establishing the working group, the MoA SR has addressed a request for a nomination of the members to the following institutions:

Of the concerned sections and departments of the MoA SR:

- Department of Structural Policy of the International Affairs Section,
- Department of Rural Development of the International Affairs Section,
- Department of Animal Commodities of the Agriculture and Trade Section,
- Section of Agricultural Policy and Budget,
- Forestry Section,
- Food Section.

For the Agricultural Paying Agency (APA), as the intermediate body for the agricultural and rural development programmes in the programming period 2004 – 2006, there is a representative of the Project Support Section.

For all the other central government administrative:

- MCRD SR – Ministry for the Construction and Regional Development of the SR (Section of the Regional Development Strategy),
- MoE SR – Ministry of Environment of the SR (Section of the Foreign Aid and EU Matters),
- MF SR – Ministry of Finance of the SR (Section of European Matters),
- GO SR – Government Office of the SR (Section of European Matters).

Of the economic and social partners and other appropriate institutions, this appeal was also addressed to:

- SAFC – Slovak Agricultural and Food Chamber,
- RIAFE – Research Institute of Agricultural and Food Economics,
- Research Institute of Animal Production – now Slovak Agricultural Research Centre (Station of Fisheries and Aquaculture) in Častá,
- SVFA – State Veterinary and Food Authority,
- AFFS – Association of the Fish Farmers in Slovakia,
- SEA – Slovak Environmental Agency in Banská Bystrica,

- Tatra National Park – TANAP (Liptovský Mikuláš branch),
- SAU – Slovak Agricultural University in Nitra (Faculty of Agrobiology and Food Resources, Department of Poultry and Small Animals),
- AAHS – Joint Agricultural High School in Ivanka pri Dunaji.

The first meeting of the working group took place on 26 August 2005 and was attended by the nominated representatives of the MoA SR (International Affairs Section, Agriculture and Trade Section, Section of Agricultural Policy and Budget, Food Section, Forestry Section), of APA (Project Support Section), MCRD SR (Section of the Regional Development Strategy), MF SR (Section of European Matters), GO SR (Section of European Matters), MoE SR (Section of Waters and a representative of Slovak Anglers' Association), SEA, SAFC, SAU, AFFS (two persons representing both the fish farmers and the processing subjects) and TANAP.

The objective of this meeting was to inform on the draft Regulation on the European Fisheries Fund after the completion of discussions in the Working Group for Internal and External Fisheries Policy in June 2005 and to present the main policy areas, priority axes and possible measures to be supported from the Fund within the Slovak Republic. Following this meeting in October 2005, the members of the working group received a questionnaire to assess the need for the individual measures in the new operational programme Fisheries of the Slovak Republic 2007 – 2013, as they were set out in Council Regulation (ES) on the EFF.

The second meeting of the working group for the EFF took place on 5 April 2006 and was devoted to information about the state of play in adopting the Regulation on EFF and most importantly, to discuss the draft NSP for Fisheries 2007 – 13 prepared by the MoA SR following the consultations based on the principle of partnership pursuant to Article 8 of Regulation on the EFF. At this stage, the composition of the working group has changed following a request of the Ministry of Environment SR, the representative of TANAP has been replaced by a representative of Section of Nature and Countryside Protection of the MoE SR. Received comments to the draft NSP were debated, out of which the requirement of the MoE SR to include a new objective in the aquaculture axis ("Promoting sustainable aquaculture compatible with specific environmental constraints resulting from the designation of NATURA 2000 areas") appeared the most significant in terms of the focus of the Programme. This was encountered by a refusal of the MoA SR on the grounds of an effort to focus the support to the stimulation of the production rather than to halting it and using the limited resources available from the Fund for the nature protection which can also be financed from other, much bulkier sources. On 3 July 2006, a dissent procedure at the level of departments' directors took place with a supportive participation of the partners from the Association of Fish Farmers in Slovakia, and the Slovak Environmental Agency on the other side, which did not conclude in an agreement; and the gap between the views was not rectified. In the meantime, several meetings of the experts on the NATURA 2000 issue were made, attempting to clarify the provisions of the Regulation relating to compensations granted on the basis of a commitment of the fish farmers to the constraints linked with the aqua-environmental requirements going beyond the usual good aquaculture practice. On 11 August 2006 there was a follow-up dissent procedure at the level of directors general which reaffirmed the persisting variance in the interests of both government departments in the field of focusing the EU support and left this matter unresolved for a political decision of the ministers. On 21 September 2006, a decision at the level of ministers was adopted to omit the inclusion of the aforementioned aqua-environmental objectives in the NSP for fisheries and that the compensation of the establishment of the NATURA 2000 areas be retained in the field of competence of the MoE SR through programmes financed by other EU funds.

During the consultations of the NSP with the Slovak Anglers' Association, discussions were held in relation to their requirements concerning the support of building new fish pond systems aiming to provide for self-sufficiency of the country in market fish as well as in fish stock material, also concerning the support for farming of the authentic fish species and most importantly fish stock material, on the other hand their requirements contained omitting of the support for farming of new (economically valuable) fish species, introducing of measures for the protection and development of aquatic fauna and the rehabilitation of inland waters, including spawning grounds and migration routes for migratory species of fish. Generally, their requirements are founded on their main mission, which is to organize citizens with joint interest in the development and exploitation of the recreational and sports angling, exercising the anglers' right in accordance with the Act on fisheries, in the area of nature and environment protection where related to the fisheries, conservation of the ecology of water and of surrounding nature and in preservation of the genetic resources of fish and associated restocking of water flows. Therefore were some of their proposals in contrast with the concept of the Ministry of Agriculture of the SR on the focus of the NSP and for the reason that the majority of their requirements fall within the competence sphere and subsidies schemes of the Ministry of Environment of the SR, they could not be accepted in the limited strategy co-financed by the MoA SR.

The situation in the monitoring and data processing for the fisheries sector is not satisfactory or sufficient. In the long term, accurate data detailing different segments of the sector are missing, therefore it causes difficulties tracking the changes in particular parameters in time and anticipating their future development. This fact was indirectly influenced by the socio-economic changes after 1989 and subsequent transformation process of the state enterprises into private ones. The former aquaculture units of Štátne rybárstvo, Stupava (State Fisheries enterprises in Stupava) have been split and small independent business entities created from the production units. In addition to previously existing fish farms, a whole line of brand new fish farming facilities have been set up „from scratch”. Their existence remains mostly hidden from the oversight of the state administration. Exact monitoring of the production capacities and the volume of the production, or echo checking of the data declared is very burdensome, almost impossible. The way how the state administration in this country in the fisheries sector is divided between two ministries constitutes a certain complication in drawing up of the programme documents. MoA SR is responsible for aquaculture, processing industry, marine fisheries (regarding the membership of the SR to the EU) and related veterinary matters. MoE SR is responsible for the recreational fisheries, water management and the protection and conservation of the nature and countryside.

Collection of data into the NSP

Because none of the past EU programmes in Slovakia dealt with the support of the fisheries alone, and considering the real standing of the sector within the national economy, there is no history of monitoring the sector in such an extent as to satisfy the need for thorough appraisal of its shortcomings and development potential. This fact is mirrored in the lack of monitoring by the research institutes of the Ministry. On these grounds, the analysis of the sector is also based on the information provided directly by the potential recipients of aid.

In November 2005, the MoA SR distributed a questionnaire to all the enterprises which indicated any link with fish farming requesting to provide information on the specialization of their business, its technical state and equipment, situation in employment and qualification of the employees, marketing, or alternatively processing and on business (investment) plans to

the future. The outputs of this questionnaire will be taken into account in drafting the operational programme and its measures. Detailed information obtained from the fish farmers are listed in Annex II.

In March 2006, the MoA SR addressed the potential recipients of aid once again, this time by sending out a questionnaire to the processing segment, with a similar aim as in the case of fish farmers, to acquire information on the state of their enterprises, investment plans, material and information needs and financial goals in relation to the EFF. For a detailed assessment of their responses see Annex II. The outputs will be regarded as a guide information tool in drafting the measures of the operational programme dealing with the processing and marketing of the fisheries products as the enterprises which were chosen to receive this questionnaire only represent a sample of the entities engaged in the processing of fish in Slovakia, however, by no means can the data obtained from this questionnaire be regarded as decisive in terms of the entire processing sub-sector.

Implementation and monitoring of the NSP

Bearing in mind the high extent of the content over-lapping, the implementation of the NSP shall be carried out at the level of implementation of the Operational Programme Fisheries of the SR 2007 – 2013. Achieving of the objectives of the set priorities of the SR will be partially co-financed from the EFF and from the State Budget with private contributions. Participation of other national or Community resources in the implementation of the NSP for Fisheries is not envisaged. Demarcation lines between the interventions of the EU funds in the programmes prepared for the programming period from 2007 to 2013 will be described in detail in the Operational Programme Fisheries of the SR 2007 – 2013. The management and control authorities provided for in Article 58 of Council Regulation (EC) on the EFF will be defined in the programme document. The receiving and processing of projects, as well as the contracting, payments and monitoring of the indicators will be carried out by the Agricultural Paying Agency.

7. ANNEXES

- Annex I: Relevant legislation related to the fisheries
- Annex II: Evaluation of the MoA SR questionnaire
- Annex III: Tables and graphs
- Annex IV: Maps

Annex I – Relevant legislation relating to the fisheries

Fisheries

Act No. 139/2002 Coll. on fisheries as amended thereafter

Ordinance No. 185/2006 Coll., implementing the Act No.139/2002 Coll. on fisheries as amended thereafter

Act No. 194/1998 Coll. on breeding and reproduction of farm animals and amending and repealing of Act No. 455/1991 of Codex on trade entrepreneurship (Trade Act) as amended thereafter

Veterinary

Act No. 488/2002 Coll. on veterinary care and amending certain acts

Government Decree of the Slovak Republic No. 288/2003 Coll. on reporting of animals' diseases

Government Decree of the Slovak Republic No. 301/2003 Coll. on the principles having influence on the organization of veterinary controls of animals entering the territory of the Slovak Republic from the third countries

Government Decree of the Slovak Republic No. 303/2003 Coll., laying down the veterinary requirements of introducing the aquaculture organisms and of products of aquaculture on the market

Government Decree of the Slovak Republic No. 315/2003 Coll., laying down the requirements of animal protection during their killing or slaughtering

Government Decree of the Slovak Republic No. 316/2003 Coll., introducing the minimal measures for the control of certain diseases of fish

Government Decree of the Slovak Republic No. 318/2003 Coll., introducing the minimal measures for the restraining of certain diseases of shell-fish

Government Decree of the Slovak Republic No. 500/2003 Coll., amending Government Decree of the Slovak Republic No. 316/2003 Coll., introducing the minimal measures for the control of certain diseases of fish

Government Decree of the Slovak Republic No. 534/2004 Coll., laying down the principles of the organization of veterinary controls of the products entering the territory of the European Communities from the third countries

Government Decree 41/2005 Coll., laying down the requirements of animal health relating to the production, processing, distribution and placing on the market of the animal products intended for human consumption

Food industry and processing

Order of the Ministry of Agriculture of the Slovak Republic and of the Ministry of Health of the Slovak Republic No. 877/2001 – 100, issuing the Title of the Food Codex of the Slovak Republic regulating the fisheries and aquaculture products and products thereof

Government Decree of the Slovak Republic No. 307/2003 Coll., governing the requirements of animal health during the exchange and import of the animal products which are not subject to other veterinary requirements

Government Decree of the Slovak Republic No. 320/2003 Coll. on the monitoring of certain

substances and their residues in live animals and in animal products

Water management

Act No. 364/2004 Coll. on waters and amending Act of the Slovak National Council No. 372/1990 of Codex on legal offences as amended thereafter (Water Act)

Government Decree of the Slovak Republic No. 491/2002 Coll., laying down the qualitative targets of the surface waters and the limit values of pollution indicators of the waste waters and of special waters

Ordinance No. 221/2005 Coll. of the Ministry of Environment of the Slovak Republic, laying down the details on the detection of the presence and on the assessment of the condition of the surface and sub-surface waters, on their monitoring, keeping records on waters and on water balance

Government Decree of the Slovak Republic No. 296/2005 Coll., laying down the requirements on the quality and qualitative targets of the surface waters and limit values of pollution indicators of waste waters and special waters

Environment

Act No. 24/2006 Coll. on the assessment of the impacts on the environment and amending and repealing certain Acts

Act No. 543/2002 Coll. on the protection of the nature and countryside

Ordinance No. 24/2003 Coll. of the Ministry of Environment of the Slovak Republic, implementing the Act No. 543/2002 Coll. on the protection of the nature and countryside

Act No. 237/2002 Coll. on the trade with endangered species of wild animals and of wild plants and amending and repealing certain Acts

Act No. 15/2005 Coll. on the protection of the species of wild animals and of wild plants by means of regulation of the trade therewith and amending and repealing certain Acts

Act No. 205/2004 Coll. on the collection, storage and dissemination of environmental information

Ordinance No. 90/2004 Coll., implementing the Act on the environmental management and audit scheme

Ordinance No. 227/2003 Coll., amending Ordinance of the Ministry of Environment of the Slovak Republic No. 234/2001 Coll. on entering of the wastes on the Green waste list, Yellow waste list and Red waste list and on the specimens of the certificates required in the transport of wastes as amended by the Ordinance No. 410/2002 Coll.

Other

Ordinance of the Statistical Office of the Slovak Republic No. 482/2005 Coll., issuing the National Programme of the statistical data retrieval for the years 2006 to 2008

Measure of the Statistical Office of the Slovak Republic No. 128/2000 Coll., issuing the classification of the buildings

Ordinance of the Statistical Office of the Slovak Republic No. 552/2002 Coll., issuing the statistical industrial classification of economic activities

Ordinance of the Statistical Office of the Slovak Republic No. 632/2002 Coll., issuing the statistical classification of the production

Annex II – Evaluation of the MoA SR questionnaire

a) MoA SR questionnaire on the fish farmers

Of the 228 addressed businesses, 91 sent in their answers, which is 41 % rate of return. This result may be regarded as a success – not only on the basis of the return rate (it is probable that most of the addressed businesses do not carry out aquaculture at present although they have it listed in their subject of business), but also with respect to the fact that a response was obtained from the absolute majority of the enterprises active in the fish farming in Slovakia. It is documented by the total number of farms and also the area of fish pond surfaces, totalled in the data evaluation which is nearing to the official figures reported for both parameters.

71 from the above mentioned 91 respondents sent in their data and the remaining 20 stated that they did not engage in fish farming.

Basic business description

Majority of the respondents were micro-enterprises (69 %). In the range of the farmed fish, lowland species were predominant (64 %), salmonids had 28 % share and the others 8 %. The most reproduced fish are lowland species (63 %), salmonids (27 %) and the others (10 %).

Investment in aquaculture

During the period 2007 – 2013, 64 out of 71 respondents plan to invest in the development of fish rearing. 88.7 % of them are intending to apply for the assistance from the EU financial resources. The greatest interest was shown in construction, and also reconstruction of fish hatcheries, storage-ponds, fish ponds, water distribution and water reconditioning systems, supply ditches and recirculation systems. In the technologies, fish farmers are most interested in incubators, graders, bird-nets and aerators. Substantial demand is in special vehicles for transport of live and processed fish.

The total sum of investments planned in 2007 – 2013 in all the respondents amounts to SKK 611.150 million.

Employment and training

54 respondents are interested in or have a possibility of creating new jobs. To do so, they would need to increase the number of fish ponds or fish farming facilities (36), increase the production volume under existing conditions (49) and improve the sales of the current production (37).

52.1 % of the respondents would like to take an external study course in the fisheries along their employment and 87.3 % are interested in complementary life-long learning. The employees take the most interest in: multifunctional exploitation of fish farming (54), nutrition and feeding of the fish, new technologies and methods of fish rearing (49), environmental protection and minimising the impact on the environment (42), new forms and possibilities of selling fish, farming of salmonids (38), rearing of lowland fish species (35), artificial reproduction (33), farming of new fish species (20).

Processing and marketing of fish

The marketed product portfolio of the respondents is as follows: 54.7 % live marketable fish, 37.6 % live fish stock material, 6.3 % frozen fish, 1.1 % smoked and 0.3 % chilled fish. 60.6 % of the farmers plan to invest in the processing and marketing of fish in 2007 – 2013 and the same number wants to use the EU funds in doing so. 64.8 % of the respondents would like to participate in the campaign to promote the consumption of fish in the Slovak Republic.

Miscellaneous

In this part of the questionnaire, an inquiry has been made as to which new aquaculture species the farmers are interested in and what sort of problems they have to face in the fish rearing. Highly favoured are the zander, sturgeon, huchen, pike, tench and crayfish. The main problem areas according

to the fish farmers are lack of financial resources, cheaper import of fish, deficient legislative, settlement of ownership relations of the plots, yearlong problem with marketing of own produce, bad water quality.

b) MoA SR questionnaire on the fish processing enterprises

Though not all of the enterprises operating in the processing of fish and production of fisheries products within the Slovak Republic were addressed, 8 out of 11 addressed businesses did respond, that means the return rate is 72.7 %.

Basic business description

Despite of the fact that the majority of the respondents were medium size enterprises (62.5 %), there are also small and micro-enterprises. All of the respondents operate 1 processing unit. The marine species are prevailing in each of the enterprises – 7 out of 8 process marine species along others – 4 enterprises process exclusively marine species (50 %), 1 processes only freshwater species (12.5 %). Of the marine species, mackerel, herring, various kinds of cod, salmon and sea pikes are the most commonly processed species and then also tuna, hake, sprat, shark, swordfish, crab and squid. Filleting of frozen fish blocks is often mentioned. Rainbow trout and carp clearly dominate in processing of freshwater species. Other processed species are zander, pike, wels catfish and salmon. Among the crustaceans and molluscs – shrimps, mussels, octopuses and cuttlefish are processed.

Investments in processing

All of the respondents are intending to invest in the business during the period 2007 – 2013, and as many of them are planning to seek the financial aid from the EU. 87.5 % of the processing businesses showed interest in the construction of facilities for minimising of the adverse impact of the processing activities on the environment. In the technologies, equipment and facilities for freezing, chilling, storage, dissection, packing and filleting will be needed, also saw-fillers, sewage tanks, distribution vehicles, freezers, sterilizers, IT, dating and clasper machines, lifting platforms, steam defrosters, container washers, as well as replacement of worn machines and equipment.

The total sum of financial resources necessary in 2007 – 2013 in all the respondents amounts to SKK 109.79 million.

As for the buildings, the respondents declare the need for land purchase, construction of storage, chilling, freezing facilities and hygienic loop to the smoking oven, in one case also a sanitary facility. The aggregate value of these investments is SKK 137 million.

They intend to reconstruct the production areas, processing units of live fish, freezing units and freezing storages, storage rooms, septic tank with grease trap and neutralization station and inner communications in total of approx. SKK 23.481 million.

The total sum of investments planned in 2007 – 2013 in all the respondents amounts to SKK 270.271 million.

Employment and training

7 respondents are interested in or have a possibility of creating new jobs (37 in processing, 20 in retail and 100 jobs retained). To create new jobs, they would need to complete unfinished investments, to acquire distribution vehicles, financial resources, more modern efficient technologies and to obtain higher qualification.

These 8 enterprises employ 880 persons in full-time positions and 22 persons work part-time.

100 % of the respondents are interested in complementary education, e.g. lectures and seminars on special subjects, most particularly: improving of working, health and hygiene conditions or product quality (8), new forms and possibilities of marketing of fish (7), new/innovative technologies and methods in fish processing (6), environmental protection and reducing the impact on the environment (5).

Processing and marketing of fish

The volume of freshwater fish processed in these enterprises amounts to 630 tonnes a year; the volume of marine fish processed is 7526 tonnes a year. Though 2 out of 8 enterprises also produce farmed fish, their main product however is predominantly fish fillet (around 46 % of their production). Furthermore, they produce frozen and chilled fish (46 %), smoked, dried and brined fish and largely mayonnaise salads and fish products and conserves.

5 of 8 enterprises do not mention problems with marketing.

62.5 % of the respondents would like to participate in a promotion campaign to increase the fish consumption in the Slovak Republic, in a campaign to improve the image of fisheries and aquaculture products and the image of the fisheries sector and in implementation of a quality policy for fisheries and aquaculture products. It is appropriate to stress that all of the respondents showed interest in a campaign to uplift the fish consumption in the country.

Miscellaneous

In the last part of the questionnaire, space was provided for the respondents to name the problems they are tackling in processing of fish at the moment. The main problems are deemed to be the obsolete technologies and storage facilities and out-of-date production methods (7 of 8). Moreover, stagnating product assortment and adverse affects on the environment. Frequent examinations and waste removal abusing the monopoly position by companies providing for that appear to be problematic. Low consumption of fish and development of prices not covering the production costs were emphasized. The very price development reflects the market behaviour of the big chain stores, which demand increasingly higher bonuses and do not allow price adjustment based on the rising costs whereby forcing the producers to producing lower quality products (containing less fish meat).

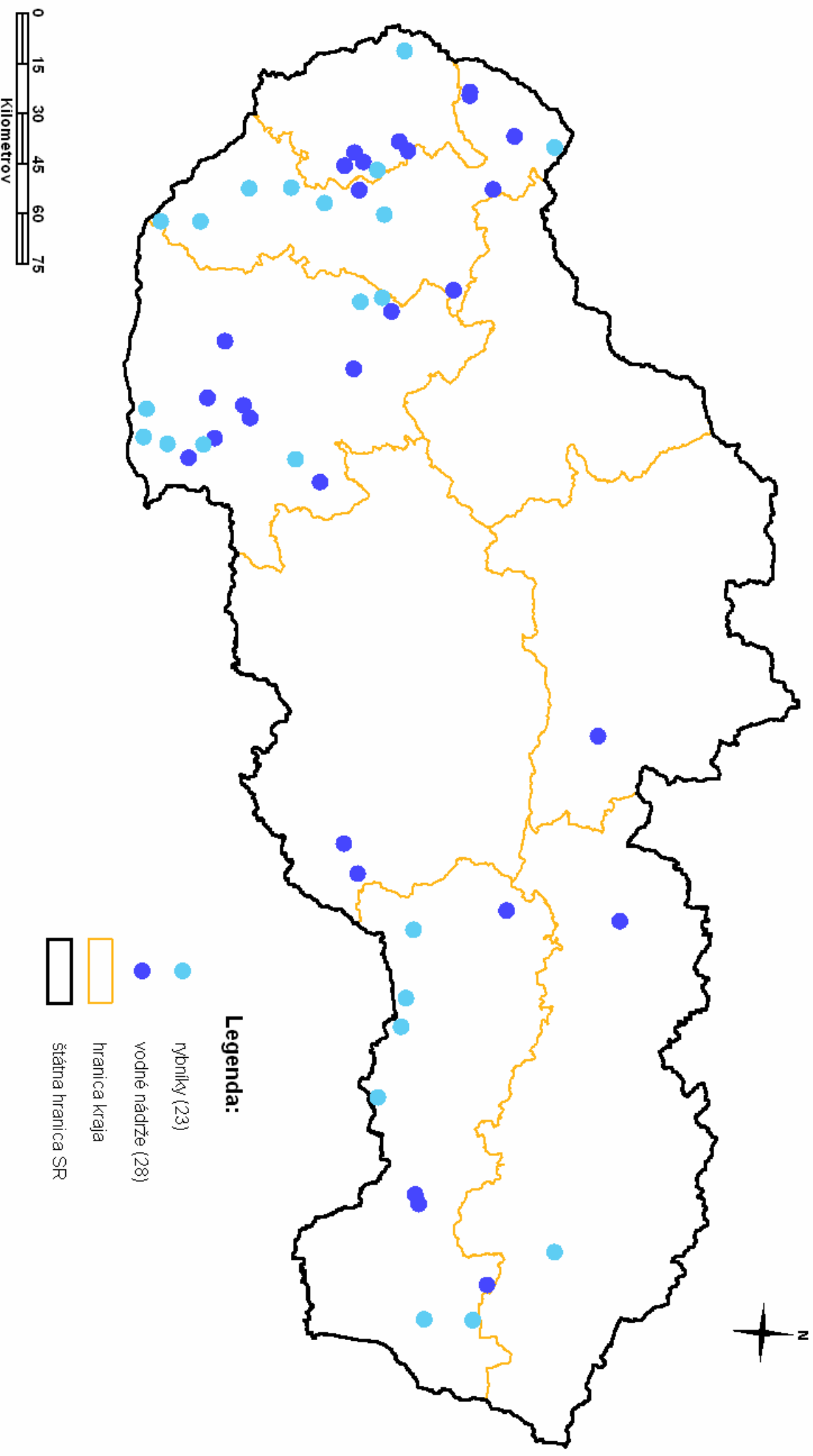
Annex III – Tables and graphs

- Table 1: Development of foreign trade of the SR in commodities „Fish, crustaceans and molluscs“ for the period 2000 – 2004 in tonnes;
 - Graph 1: Export in 2004 in tonnes;
 - Graph 2: Import in 2004 in tonnes;
- Table 2: Development of foreign trade of the SR in commodities „Fish, crustaceans and molluscs“ for the period 2000 – 2004 in SKK million;
 - Graph 3: Export for 2004 in SKK million;
 - Graph 4: Import for 2004 in SKK million;
- Table 3: Harvest of marketable consumption fish by species for 2000 – 2004;
 - Graph 5: Harvest of marketable consumption fish;
 - Graph 6: Harvest of marketable Rainbow trout;
 - Graph 7: Harvest of marketable Common carp;
- Table 4: Harvest of marketable consumption fish for 2000 – 2004;
 - Graph 8: Harvest of marketable consumption fish by kind in 2004 in tonnes;
- Table 5: Overall employment in fisheries for 2000 – 2004;
- Table 6: Employment in aquaculture for 2002 – 2004;
- Table 7: Number of businesses in fisheries in 2004;
- Table 8: Employees in fish processing and average monthly income (natural persons) for the period 2000 – 2004;
 - Graph 9: Employees in fish processing;
 - Graph 10: Average monthly income in fish processing.

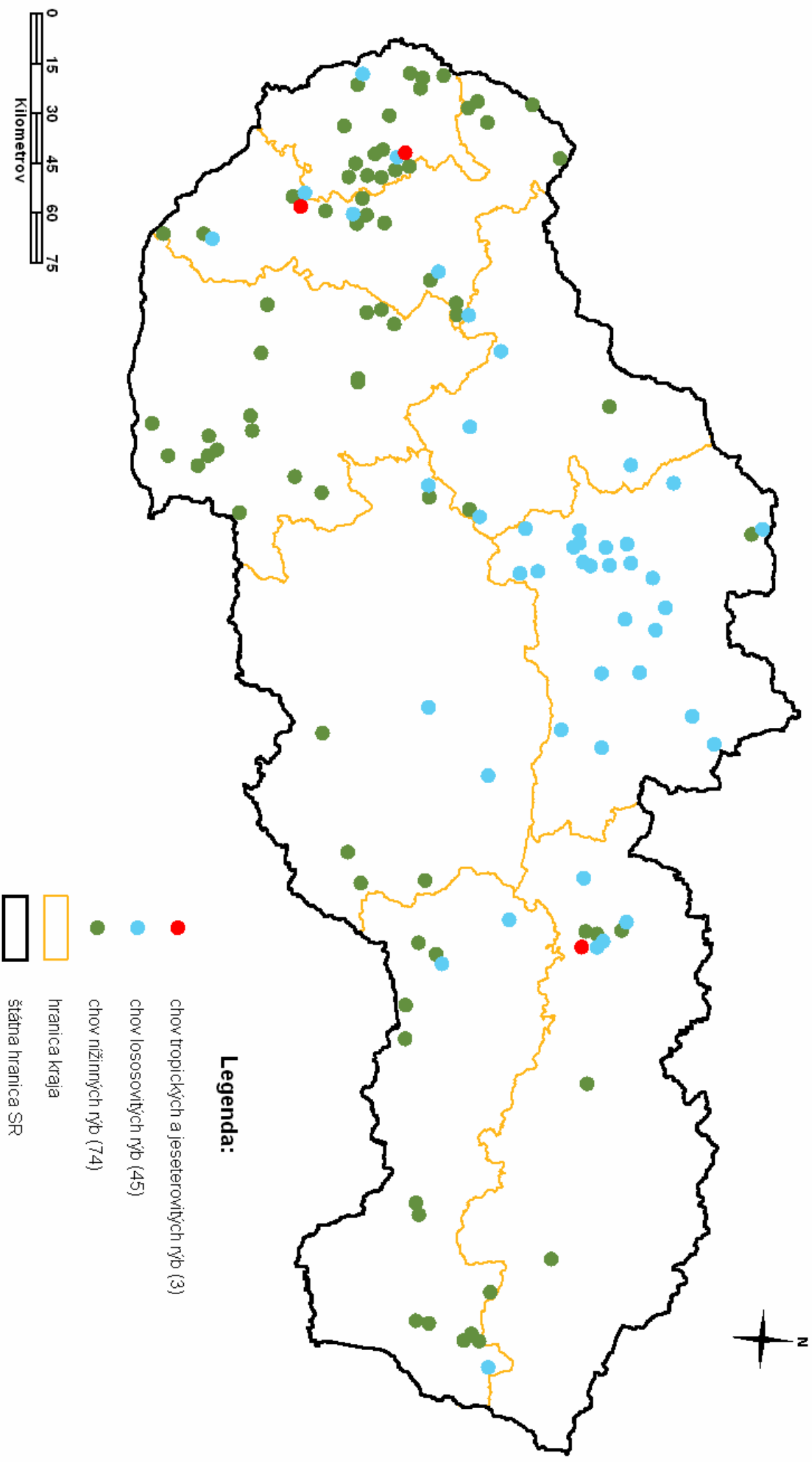
Annex IV – Maps

- Map 1: Most important fish ponds and water reservoirs used for aquaculture;
- Map 2: Fish farming facilities;
- Map 3: Processing companies for fisheries and aquaculture products.

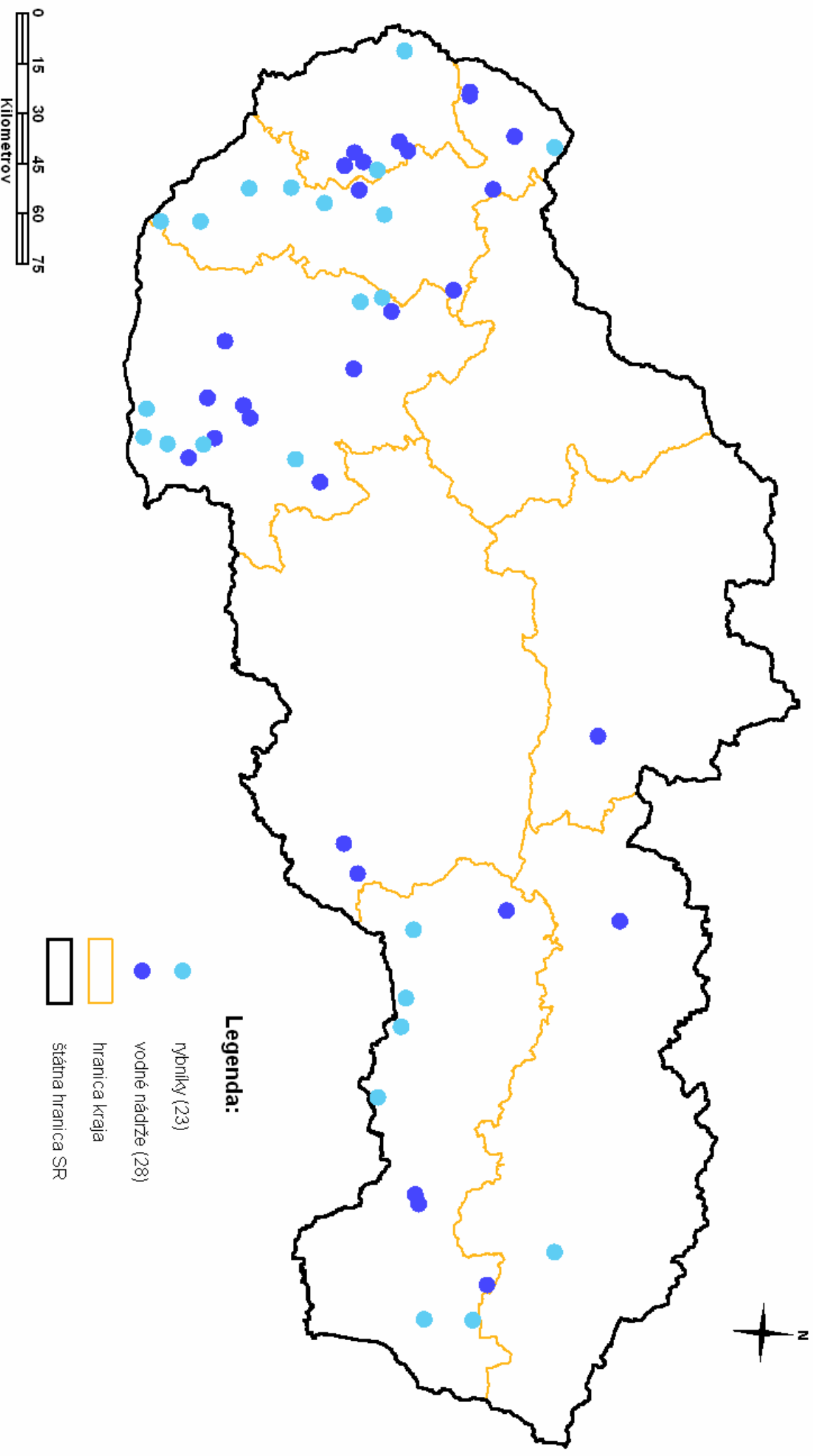
Mapa významných rybníkov a vodných nádrží využívaných na akvakultúru



Mapa rybochovných zariadení



Mapa významných rybníkov a vodných nádrží využívaných na akvakultúru



Mapa spracovni produktov rybolovu a akvakultúry

