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Aquaculture 2020 - Austrian strategy to increase the national fish production





Sustainable for nature and mankind

Quality of life

We create and assure the requirements for a high quality of life in Austria.

Bases of life

We stand for a preventive conservation as well as responsible use of soil, water, air, energy and biodiversity.

Living environment

We support environmentally friendly development and the protection of living environments in urban and rural areas.

Food

We ensure sustainable production in particular of safe and high-quality food as well as renewable resources.

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PREFACE



As much as 75 % of the European fish stocks are threatened. At the same time current statistics show that the population is newly discovering fish as healthy food. The sales figures are permanently increasing. The dictate of the hour is thus to

rely on sustainable inland fisheries and aquaculture production. The goal of this strategy paper “Aquaculture 2020 – Austrian strategy to increase the national fish production” is to raise the degree of self-supply with freshwater fish from presently 34 % to 60 % until 2020. This corresponds to an increase in the production quantity by 2,400 t to then 5,500 t annually. Practical measures, which have been worked out jointly by the Ministry of Life, the fisheries associations and the Federal Agency of Water Management provide good action guidelines in order to reach the set goal until 2020.

The measures contained in the programme “Aquaculture 2020 – Austrian strategy to increase the national fish production” are quite diverse. Education and extension, quality production, efficient and more innovative plants and standardised legal interpretation will bring new dynamics into the sector.

I would like to invite all those bearing responsibility to participate in the implementation of this strategy paper in order to jointly support the successful development of the Austrian fish production.

DI Niki Berlakovich
Minister of Agriculture and the Environment

In our country there has been a tradition of fish farming for centuries and it is part of the culture of our country. Be it professional fisheries on lakes and rivers, carp aquaculture which has regionally marked the landscape significantly and sustainably

or trout farming. All branches have made important contributions to the “delicacies shop Austria” in the recent decades.

In the past the Austrian subsidy programmes from the European Fisheries Fund contributed significantly to the further development of our enterprises in Austria. Fish farms were modernised, establishments and equipment renewed. This made the work much easier and young farmers could be motivated to take over the farms. New fish farms with new innovative products were founded. The value added from the domestic, small-scaled fisheries industry and aquaculture of Austria was especially due to processing and marketing, very stimulating for the rural area.

On a global scale aquaculture is a rapidly growing sector. Now is the right time to pave the way for the future anew, also in Austria. The Austrian Association for Fisheries and Aquaculture thus welcomes the initiative “Aquaculture 2020” launched by Federal Minister Niki Berlakovich and is readily willing to actively participate in the planned measures.



Chairman Johann Kölbl
Austrian Association for Fisheries
and Aquaculture

Executive Summary

Austrians have discovered the pleasure of eating fish. The per-capita consumption of fish and fish products per year amounted between 7 and 8 kg in the course of the past few years. In order to satisfy the need, Austria depends, to a large extent, on imports of marine and freshwater fish.

However, the fish stocks in the oceans cannot be used to an unlimited degree. In recent years the catches of the European fleets have declined. The stocks need careful management and measures in favour of controlled recovery. These are good arguments and positive framework conditions for the development of aquaculture. On a global scale even more than every second fish consumed originates from aquaculture. In Europe almost 20 % of the fish production originates from the aquaculture industry, where about 65,000 persons are employed.

The EU aquaculture is known for the highly developed quality level of its products and production methods. However, the qualitative progress is not reflected by a rise in production. The quantity of aquacultural products produced in the EU has remained approximately the same since the year 2000, whereas the production in the rest of the world has increased by one third. If you take a closer look an almost contrary development can be identified in the various fields of aquaculture. Whereas the European production of saltwater fish is steadily increasing it has been more and more declining with molluscs and freshwater fish in the course of the past few years.

In recent years Austria has consistently developed a high-quality production at the highest level. This has also been well accepted by the consumers, because Austrian fish from regional production has an excellent reputation. The strategy Aquaculture 2020 should give a strong impetus to considerably increasing the production of Austrian freshwater fish.

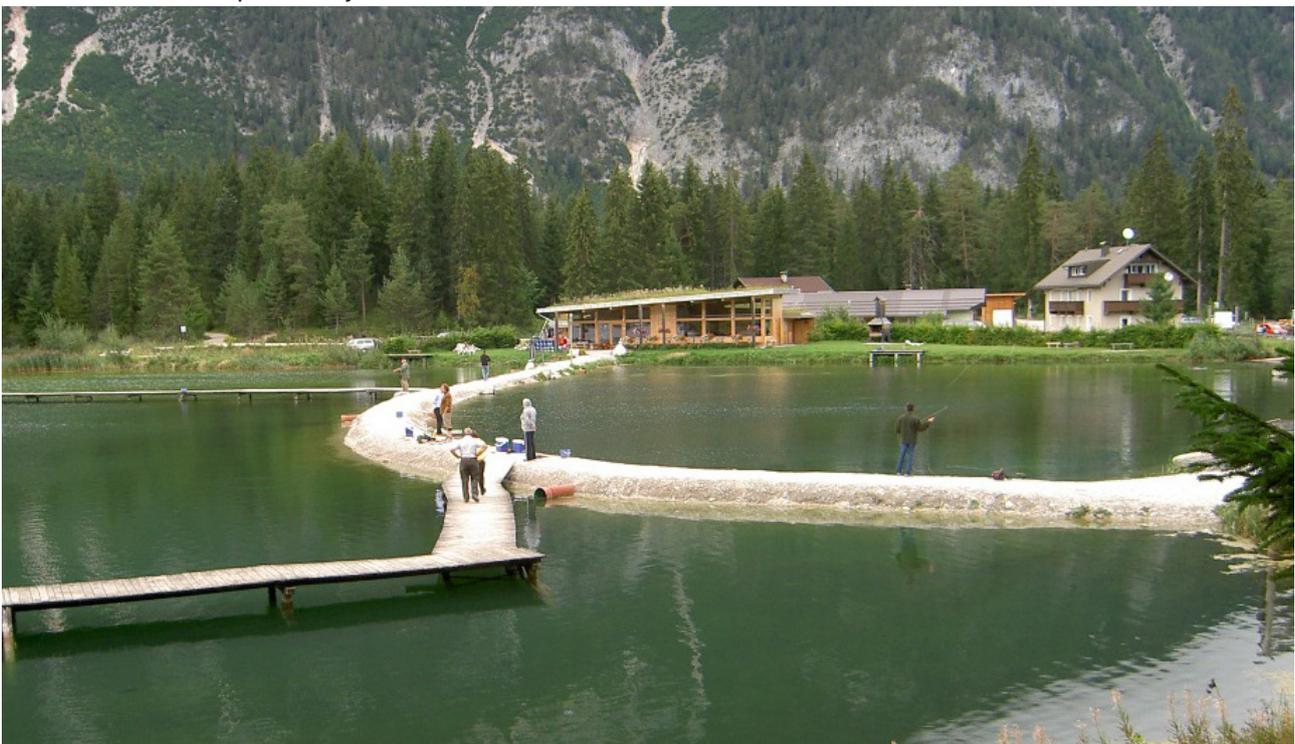
The strategy “Aquaculture 2020” has set itself the following goals:

Raising the rate of self-sufficiency for freshwater fish from presently about 34% to 60% by the year 2020. This corresponds to a production increase by 2,400 tonnes to 5,500 tonnes annually.

- Trout production: Increase from 2,200 t to 4,000 t
- Carp pond farming: Increase from 750 t to 1,000 t
- Recirculation systems: Increase from 150 t to 500 t

The set goals can only be achieved in the case of optimized framework conditions for aquaculture in Austria.

The strategy Aquaculture 2020 presents a package of measures, which will make an important contribution to the expansion of the Austrian aquaculture.



Measure 1

New guidelines for authorisation procedures

The production of high-quality fish predisposes first class water quality. This is a valuable capital for the producers and an obligation at the same time. The guidelines should provide assistance for the licencing authorities on the spot, for the producers it shall ensure a uniform application across Austria.

Measure 2

Competence centres for training, extension and scientific guidance

The Federal Agency of Water Management with the Institute of Water Ecology, Fishery Biology and Limnology in Scharfling and the Ecological Station Waldviertel shall further strengthen its position as competence centre for trout and carp pond farming. It is the first contact point for interested newcomers. The offer of education and extension must take account of the rising interest in profound training.

Measure 3

Expanding production through innovation and new production sites

Innovative technologies can permit to produce more fish with the same level of water consumption. Pilot projects, for example recirculation systems shall be scientifically supported in order to find optimal scientific solutions with a view to animal welfare, product quality, product safety and economic efficiency. An expansion of production in trout pond farming is also intended by opening up new additional water resources and in carp pond farming by the establishment of new sites with additional pond areas.

Measure 4

The European Maritime and Fisheries Fund (EMFF) as a tool for implementing the strategy “Aquaculture 2020”

In the negotiations on designing the EMFF 2014 – 2020 (European Maritime and Fisheries Fund) Austria plays an active role in order to ensure that priorities are set towards a sustainable development of aquaculture. The Strategy Aquaculture 2020 with its goals will be subsidized and supported by the Austrian subsidisation programme 2014 - 2020.

Measure 5

Continue on the path of quality production

The intended introduction of an AMA quality label for freshwater fish shall make the domestic quality production even more visible.

Inland fisheries and aquaculture have already implemented at a very early time the idea of “Region of Delight”. The already existing eight Regions of Delight shall be further developed and its offer for direct marketing and the regional high-quality gastronomy shall be extended.

Aquaculture – a booming growth sector

Nowadays aquaculture is globally the most rapidly growing sector of food production altogether. 65 million tonnes of cultured seafood at a value of 60 billion Euros constitute the key data of this sector which is equally important for the nutrition and the employment of the population (Aquaculture Yearbook 2010/2011).

The share of edible fish originating from aquaculture has been rising constantly for years and amounts today to about 47.8 million tonnes (in the year 2005). Globally every second fish consumed originates meanwhile from aquaculture! According to figures by FAO the yield from aquaculture has been recording a continuous rise of about 8.8 per cent per year since the 70ies. Nowadays 90 per cent of global aquaculture takes place in Asia.

For many years the European Commission has been confronted with the fact that the fish stocks in Community waters are dramatically decreasing, but the demand for fish by consumers is steadily rising. Thus, in view of the growth rates of aquaculture production in Asia and the stagnation of the overall production of the Community fish breeding sector, the European Community has set itself the goal to develop the European aquaculture in a sustainable way.

In a comprehensive strategy paper of the European Commission (Communication of the European Commission to the European Parliament and to the Council,

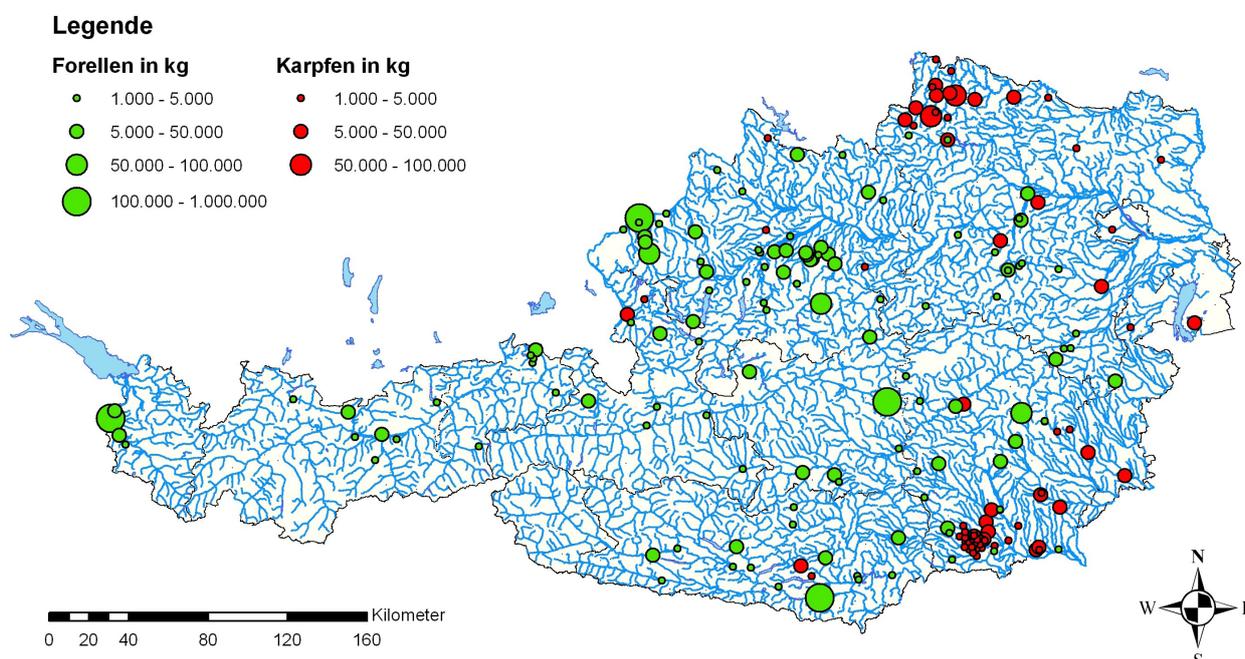
“Building a sustainable future for aquaculture” of 2009) the necessary measures were demonstrated in order to enable a dynamic development for the EU aquaculture sector of tomorrow.” Austria supports this strategy of sustainable growth. The European aquaculture has a pent-up demand. In Austria, too, it is important to seize the opportunities which present themselves!

Domestic production

In Austria primarily carps (natural ponds) and trouts (flow-through systems, raceways) are produced. Other important species are char, pike-perch and various catfish.

Carp pond farming

The carp production disposes of about 2,700 hectares (ha) pond area, 550 ha of which are organic fish farms. The regional priorities are in the Waldviertel and in the South of Styria. 683 ponds are bigger than 1 ha, 2 ponds of which cover an area of more than 50 ha (Water Management Register Federal Ministry of Agriculture, Forestry, Environment and Water Management, 2002). The largest Austrian pond is the Gebhartsteich in the Waldviertel with about 57 ha.



Trout production

In about 250 production facilities more than one tonne of fish each are produced. The main fish species in these enterprises are rainbow trout, brown trout and char. Besides there is a great number of small facilities for own consumption.

Production figures in Austria

About 3,100 tonnes per year from aquaculture (Source: BAW-IGF, 2010, rounded)

- 2,200 t trout production “rainbow trouts, chars, brown trouts,”
- 750 t carp pond farming “carp varieties, pike-perch, tench,”
- 150 t recirculation systems “African catfish,”

Of the overall production edible fish account for 2,170 t and stocking fish for 930 t (partly for aquaculture, partly for angling)

Low degree of self-sufficiency

The changed nutritional awareness and also the rich offer of ready-made meals in the fish sector have resulted in a considerable rise in fish consumption in Austria. Meanwhile the per-capita consumption makes up between 7 and 8 kg. However, the increasing demand had to be met almost exclusively by rising imports. From 1988 to 2010 a rise in imports amounting to 100 % was recorded. Whereas there is on the one hand own production of 3,100 t annually (degree of self-sufficiency 5 %) there is on the other hand an import volume of 61,254 t (of which about 9,000 t are freshwater fish; according to the supply balance fish 2010).



Typical features of domestic production

Pure water

Austria has ambitious environmental goals as regards the quality of its water bodies. Over the past two decades consistent implementation of the requirements set out in the Austrian Water Act has brought about a significant improvement in the quality of Austrian waters. The stringent provisions of the Austrian Water Act, including a specific Ordinance on Wastewater Emissions for aquaculture facilities, the Animal Welfare Act, the Livestock Epidemics Act and the nature conservation laws of the Federal Provinces, ensure the continued cleanliness of water bodies as well as healthy and animal-friendly production and provide the framework conditions for fisheries in Austria.

Perfect product quality

Resource use by the Austrian aquaculture sector follows the principle of sustainability in terms of water availability and wastewater loads. For this reason the available water resources cannot always be utilised to the extent desired by the fishery sector. However, the outstanding water quality and the comparatively low stock densities are key factors to guarantee the excellent quality of the products produced and processed.

Consumers appreciate this quality and search actively for regional Austrian fish. Many production enterprises have recognised this opportunity and increase their value added by means of product refinement and by starting or extending direct marketing. Over the past few years Austria has developed the successful path of quality production. This includes also organic fish and regional specialities such as:



**GENUSS
REGION
ÖSTERREICH**



Nature conservation through production

Since medieval times especially carp pond farming has had a marked influence on the cultivated landscape. Continuous geographical areas with pond-farming enterprises are particularly valuable as areas of living; they fulfil most different functions (culture, recreation, tourism, production, water balance etc.) and, where managed extensively, play a prominent role in the conservation and preservation of biological diversity.

However, only ponds which are managed ensure these functions over the long term. Most carp pond farmers participate in the Austrian Agri-environmental Programme (ÖPUL) and of course fulfil its requirements like, for example, the establishment of silt accumulation zones or compliance with low stock densities or organic production. By meeting these requirements all conditions for the production of excellent products are fulfilled.

Basis family farm

Aquaculture is small-structured in Austria; 438 family farms produce each on average 7,000 kg of fresh fish per year. Farm owners therefore invest cautiously and with a high level of equity. Many production enterprises that directed themselves towards the further processing, and eventually towards the marketing of products, did so little by little to keep their financial risk manageable.

Fish production is also well suited as a secondary activity for agricultural enterprises; fish from own



production can extend the range of direct marketing products.

New technologies are still at an early stage

Recirculation systems are in general environmentally sound, as they require comparatively low quantities of water and, due to legal provisions, must have effective cleaning facilities. However, both the required investments and the cost of current production are significantly higher than they are for conventional facilities. Higher stocking densities also involve a higher risk of fish diseases. The uncertainties in production are therefore higher, in particular also in terms of economic efficiency.

However, especially the production of species that have so far not, or hardly ever, been produced for the food fish market would be promising; but this requires technical improvements. Producing species which are presently to a rising extent imported from third countries could also significantly cut transport distances and thus could have a (modest) positive influence on the CO₂ balance. In general, where production is to be increased in aquaculture also the question of replacing fish meal by more sustainable feed components has to be discussed.

Promotion of aquaculture

The European Fisheries Fund (EFF) is the funding tool of the EU's Common Fisheries Policy. In this context, Austria presently implements the 3rd support programme for the period from 2007 to 2013. As in earlier periods, the focus is on the subsidisation of investments in the fields of fish production, processing and marketing. As aquaculture is rather small-structured, it is not a problem to satisfy the rising demand for high-quality regional products. This structure has also turned out to be effective in times of financial and economic crisis. The funding volume of the current programme amounts to approximately € 10 million (EU, national and provincial funds).

Objective: More domestic production

The low supply of the Austrian market with domestic fish is to be countered by a tangible increase in production. Representatives of the associations of trout breeders and carp pond farmers in cooperation with the experts of the Federal Agency of Water Management (BAW) performed an assessment of the potential of Austrian aquaculture. Considering obstacles on the one hand and the joint commitment to creating favourable framework conditions for the future on the other hand, ambitious, though realistic, objectives were defined.

The strategy “Aquaculture 2020” has set itself the following goals:

Increasing the rate of self-sufficiency for freshwater fish from presently about 34% to 60% by the year 2020. This corresponds to an increase in the production volume by 2,400 tonnes to 5,500 tonnes annually.

The objectives in the individual lines of production

Trout production

With additional production sites and the use of innovative technologies a production increase by approximately 80%, to 4,000 tonnes per year, is to be achieved by 2020.

Carp pond farming

As special attention is given to the nature conservation and landscape functions, production is not to be expanded through intensification but in the first place by building new or revitalizing existing ponds. In this way production is to be increased by one third so it amounts to about 1,000 tonnes annually by 2020.

Closed recirculation systems (esp. African catfish)

By establishing recirculation systems an annual production volume of 500 tonnes, probably for the greater part of African catfish, is to be achieved by 2020.

Below, five measures are presented which contribute significantly to achieving the objectives.

Package of measures “Aquaculture 2020”

Measure 1

Transparent and efficient procedures – New guidelines for approval procedures

Due to the impediments prevailing in Austrian aquaculture according to information from representatives of the trout breeders and carp pond farmers, a working group dealing with the authorization procedures for aquaculture installations under water legislation was established in 2009. Experts from the BMLFUW and the BAW, from Provincial Governments, district administrative authorities and the Austrian Association for Fisheries and Aquaculture worked out guidelines for the establishment of aquaculture installations (fish ponds).

These guidelines are to assist planners and applicants, but also the competent authorities, in the design process for aquaculture projects. The administrative process is to be simplified and implementation is to be harmonised throughout the Austrian territory.

The guidelines inform about the legal situation and explain the key principles of planning. Those interested in establishing aquaculture facilities are recommended to contact the competent authorities at a very early stage of planning. At the competent provincial and district administrative bodies advisory services are offered. Checking the possibilities for realizing a project at an early stage can prevent unnecessary expenditure and contribute to “smooth” project implementation.



To give due account to public interests, special attention should be given to the following basic principles when planning aquaculture facilities:

- the economical use of water resources;
- permanently sufficient supply with water taking into account any need for residual water in the receiving water body;
- the separation of polluted and unpolluted waters.

The guidelines include a list of the documents to be presented upon application which are filed in a separate data sheet for planning purposes.

Among the conditions for authorisation, detailed information is provided in particular about the compliance with the Quality Objective Ordinances and the provisions of the General Waste Water Emissions Ordinance (“Allgemeine Abwasseremissionsverordnung”, abbr. AAEV) and the Ordinance on Waste Water Emissions for Aquaculture as well as about the extent of water utilization. In this context the different intensities of production in pond farming (impoundment facilities) and salmonid production (flow-through systems) as well as the duty of adaptation to the state of the art are addressed.

As regards the time limitation of authorisations for water utilisation, a question of special importance to the aquaculture sector, taking due account of various water management criteria, the economic importance of water utilisation and technological progress a time limit of up to 50 years appears to be appropriate.

Measure 2

Making the BAW a centre of competence for education, advisory services and scientific guidance

Institute for Water Ecology, Fishery Biology and Lake Research (BAW-IGF)

Since its establishment in 1953 the IGF at Scharfling with its affiliated fish-breeding farm at Kreuzstein has been a centre of competence for traditional fish breeding and fishery management in Austria. Also the vocational training courses for the different Federal Provinces, which are organised in the framework of the provincial apprenticeship and technical training institutions, take place at Scharfling.

Another key field of work is the diagnostics and the-

rapy of fish diseases. It should be retained also in view of the central contact point.

Ecological Station Waldviertel (BAW-ÖKO):

Since 1984 the Ecological Station has offered individual advice especially to carp pond managers. The service is based on the possibility of conducting individual studies which can well be improved. Due to its geographic location the scope of the institute has so far mainly been Lower Austria, Upper Austria and Burgenland.

Education is a key task of both institutes

For 60 years the training and continued education of skilled fishery workers and fishery foremen have been priorities of the BAW-IGF's teaching activities. In addition to the vocational courses, the institute offers also other, short courses and information events. Completion of training courses is also a precondition for the eligibility to funds from the EFF.

The Ecological Station Waldviertel organises the module “Carp pond farming” in the framework of the training for skilled workers and master craftspersons. Also basic courses for beginners in pond management as well as special courses and technical seminars, e.g. for AMA controllers or environmental crime officers, are offered. Lecture events on specific topics, such as measures against damage caused by piscivores, the management of fishing ponds or improved production of predatory fish species (pike, pike-perch) for the stocking of put-and-take fisheries, are to broaden the offer.



More resources for advisory services

For those newcomers, the two institutes of the BAW offer not only courses but also individual advice. Operators of aquaculture facilities can contact the institutes to obtain advice in the fields of water quality, hygiene or fish health. In the future, more advisory staff are to be available. Apart from internal redeployment of staff at the institutes, also the cooperation with the Federal Provinces and the Chambers of Agriculture are to be intensified.

Scientific guidance and support for innovations and pilot projects

There are a good many topical questions which need urgent action and solution:

- Minimising losses by the development and use of alternative therapeutic agents
- Minimising polluting substances in the run-off from aquaculture facilities
- Increasing production by the introduction of new technologies
- Pond-in-the-pond production systems
- New fish species in carp pond farming and in recirculation systems
- Increasing production by optimising the utilisation of natural resources, in particular of the natural feed available in the pond
- Increasing the value added from the sale from the fishing rod by establishing fishing ponds in production businesses
- Testing sustainable feeds for salmonid production

Measure 3

Expanding production through innovation and new production sites

With an annual production volume of about 2,200 tonnes, trout pond farming is the most important line of production in the Austrian aquaculture sector. Presently so-called open “flow-through systems” are used where the available water passes the breeding tanks only once. As the technology is simple, this conventional method ensures the production of high-quality food fish at competitive costs of production. However, stocking densities are usually low and specific water demand is high.

The average specific annual production capacity of the Austrian trout breeding stations is 180 kg per litre per second.

Technology for existing systems

In a first step, the production capacity can be doubled by an increase in the use of oxygen, faeces separators and micro-mesh filters in the open channel flow. All that of course in compliance with the stringent limit values applicable to the preservation of clean surface water bodies in Austria and species-compatible stock density rates.

Semi-closed recirculation systems

To increase the production capacity at the existing sites, the available amounts of water could - in a further step - be used more effectively by means of partial or single recirculation.

This would be possible by installing semi-closed recirculation systems like those used in Denmark. In a first step the water is enriched with oxygen by means of artificial ventilation or oxygenation; after the breeding tanks the water is cleaned mechanically, led over swirl separators, tailing ponds and lagoons; up to 70% of the water is then re-used. However, to exclude any negative impacts on fish health, e.g. due to ammonia, a minimum amount of fresh water must be added. With rather low technical input, the environmental stress is thus reduced and the utilization of water as the means of production is further increased.



The specific production capacity that can be realised with this system is about 800 kg per litres per second.

By the additional use of biofilters the amount of fresh water needed for trout breeding can be further reduced. Semi-closed flow channels with biofilters permit a further increase in the specific production capacity to twice the usual level of production.

This means resource-efficient growth of domestic production at the existing locations. The low demand of water will be beneficial to the ecological status of the running waters; at the same time also epidemic-hygienic treatment of water is technically feasible and affordable.

For a successful use of this new technology at a larger scale, it is essential to have profound knowledge about the functioning of the systems and to train system operators accordingly. Special importance should be attached to economic efficiency and to the functional reliability of the technology applied. Pilot enterprises that want to test new technologies should be granted not only financial support but, in particular, also intensive technical and scientific guidance by the Institute of Water Ecology, Fishery Biology and Limnology at Scharfling (IGF Scharfling).

Closed recirculation systems

The technology of closed warm-water recirculation aquaculture systems offers the possibility to produce fish in a water-saving manner. In the so-called "closed recirculation" less than 10% of the production volume is replaced by fresh water every day (recirculation rate > 90%). The technology is particularly resource-efficient and has a high innovative potential. Waste heat sources, such as biogas plants, can be used in an energy-saving manner and nutrients in aquaponic systems (combined fish breeding and vegetable cultivation, with the water from the aquaculture system fertilising the plants) can be recovered.

The range of fish species includes the trouble-free predatory African catfish and domestic catfish just as much as perch, pike-perch and other species, but market opportunities and the requirements on expert knowledge of fish breeders differ widely.

Being high-tech systems with a high energy demand, recirculation systems are demanding as regards the qualification of the staff and of business operators. Training and continued education as well as comprehensive advisory services are therefore essential for the development of potential and the successful operation of recirculation systems. Experience has shown that a profound knowledge of fish, technology and marketing are vital.

As two such facilities are already operating in Austria and one is under construction (all of them for African catfish), further extension is a realistic option.



A chance for new sites?

Especially in carp pond farming production focuses on extensive conditions and emphasises nature conservation and the maintenance of important natural landscapes. Increasing production by means of technology is therefore out of the question for many enterprises. However, increased production by means of new sites and ponds adds also to the accompanying benefits for humans and nature.

In Lower Austria alone about 500 ponds with a total area of about 70 hectares were newly established or re-activated over the past 25 years. These mostly small ponds are used either for leisure-time activities or for the production of specific species and/or size categories. A few ponds were established for fishing purposes.

In the 18th century the number of ponds used to be considerably higher. A re-activation of the ponds that have been shut down since that time is possible only to a limited extent as the relevant areas are now used for other purposes, in most cases for agriculture and forestry. Many ponds located near municipalities or cities have been filled up and cultivated.

Nevertheless we should try to identify areas that could serve as ponds. Considering that, in the mid of the nineteenth century, about twice as many ponds existed in the Weinviertel region than in the Waldviertel, we should search for such areas also outside the typical pond farming regions.

Pond farming businesses have so far taken but little effort to build new ponds. This is due to the fact that, in the past, farmers placed the emphasis above all on self-marketing and processing to increase the value added.



Meanwhile a high standard has been achieved in these fields, so it is now possible to invest in expansion. Also trout producers are convinced that there are ample, so far unused water resources in Austria which could be used for production without any negative impacts on the environment and the quality of the water. However, a superficial assessment of sites cannot provide reliable information on their actual usability.

A pilot project to assess potential sites for their production suitability

In this project the Austrian Association for Aquaculture and Fisheries will cooperate with the institutes of IGF-Scharfling and the Ecological Station Waldviertel. Via an internal survey among trout producers and carp pond farmers concerning promising new sites and/or water resources, 5 – 10 potential sites for each group are selected and analysed for their production feasibility by the institutes.

Important assessment criteria include:

Water quantity, water quality, residual water dotation, assessment of the key hydrographic data of the relevant water stretch, expected impacts of production on the water body etc.

The goal is to assess the possibilities for starting aquaculture production at selected sites and to document also obstacles. If this pilot project is successful, the project could be continued on a larger scale.

Measure 4

The EMFF as a tool for implementing the strategy “Aquaculture 2020”

The European Maritime and Fisheries Fund (EMFF) 2014 – 2020 will offer new opportunities to support the sector. One priority is to be the support of an innovative, competitive and knowledge-based aquaculture. Measures like scientific guidance for innovative projects, the establishment of advisory services or training by means of courses and events are directly addressed. We have to take advantage of these new opportunities so the two institutes will in the future be able to provide even more comprehensive offers and services for newcomers and producers.

Austria is playing an active role in the negotiations on the orientation of the EMFF (European Maritime and Fisheries Fund) 2014 - 2020. We are also proud of hosting the Aquaculture Conference at Mondsee on 11 May 2012. Austria's priority in the negotiations has so far been the permanent effort to maintain the eligibility of productive investments in aquaculture. For this purpose Austria cooperated in the establishment of two declarations that pursue exactly this goal.

The programme for the funding period 2014 – 2020 will focus on sustainable growth in domestic production. In this way the EMFF will become the most important tool for the implementation of the strategy "Aquaculture 2020".

Measure 5 **Continue on the path of quality production**

AMA Seal of Quality

The precondition of high-quality production and processing is sound training and further education. The educational level of persons working in aquaculture is high and has to be further improved and extended in the future.

By means of special labels the existing high quality of fish production in Austria should be even better communicated to consumers. The planned creation of an AMA Seal of Quality for freshwater fish will contribute vitally to making the domestic high-quality production visible. The quality of feed and water will be important criteria in this context.

Genuss Region Österreich ("Austrian Region of Delight")

Communicating the outstanding quality of fish from aquaculture and fishery as well as the traditional preparation is the key objective of the eight Austrian Regions of Delight:

Waldviertler Karpfen (Waldviertel carp), Ybbstalforelle (trout from the Ybbs Valley), Mattigtal Forelle (trout from the Mattig Valley), Neusiedler Fisch (fish from Lake Neusiedl), Steirischer Teichland-Karpfen (Styrian Teichland carp), Ausseerland Seesaibling (Ausseerland arctic char), Kärntner Laxn (Carinthian lake trout) and Salzkammergut Reinanken (Salzkammergut whitefish).

The Regions of Delight will continue their so far very successful policy consistently and will further extend their offer of regional fish specialities in direct marketing and in the regional specialties restaurants.





The initiative Genuss Region Österreich (Austrian Region of Delight) emphasizes in a targeted way the importance of regional specialties.
www.genuss-region.at



The Austrian Eco-label guarantees the environmental soundness of products and services.
www.umweltzeichen.at



The action programme of the Ministry of Life on active climate protection.
www.klimaaktiv.at



www.mein-fussabdruck.at
The Ecological Footprint is the easiest way of testing the future viability of your lifestyle. Calculate your personal footprint at:
www.mein-fussabdruck.at



The first web portal for sustainable consumption in Austria.
www.bewusstkaufen.at



The campaign "vielfaltleben" helps make Austria one of Europe's richest countries in terms of species diversity.
www.vielfaltleben.at



Austria's first green career portal for eco-friendly, green jobs.
www.green-jobs.at



lebensministerium.at
Information on agriculture, forests, environment, water and food.
www.lebensministerium.at



The internet portal of Austria's National Parks.
www.nationalparksaustria.at



The youth platform for awareness raising on water issues.
www.generationblue.at





lebensministerium.at