Reported by Federal Ministry for Food, Agriculture and Consumer Protection

# STRATEGIC PRIORITY AREA 1: CHARACTERIZATION, INVENTORY AND MONITORING OF TRENDS AND ASSOCIATED RISKS

Actions undertaken during the past year

The "Central Documentation of Animal Genetic Resources in Germany" (*Zentrale Dokumentation tiergenetischer Ressourcen in Deutschland, TGRDEU*) is Germany's National Inventory and meanwhile comprises 10 years of stock numbers on all domestic animal breeds in Germany that are organised in terms of breeding, including the species of horse, cattle, pig, sheep and goat. Among these altogether about 250 breeds, there is a special focus on the 63 indigenous breeds, particularly on those 52 that are endangered. Since poultry and rabbit breeds play a major role too, they are listed in TGRDEU as well.

Also, in this context the German Data in the EFABIS-System are reviewed and updated.

In the framework of "surveys, stocktakings and non-scientific studies in the field of biological diversity" which are carried out on behalf of the Federal Ministry of Food, Agriculture and Consumer Protection (*Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz, BMELV*) by the Federal Agency for Agriculture and Food (*Bundesanstalt für Landwirtschaft und Ernährung, BLE*), the infrastructure for regular acquisition of data of individual animals for the species of cattle and pig is established. The preliminary results after one project year are being analysed with regard to monitoring.

Also under the above-mentioned scheme, there is a survey in preparation of the stock figures at local level for poultry and rabbit breeds; presently, a mainly technical infrastructure is being created. This involves that in future stock figures regarding the individual breeds and varieties are entered into the central database via Internet by the local representatives of the German Association of Poultry Breeders (*Bund Deutscher Rassegeflügelzüchter e.V., BDRG*) resp. the National Association of German Rabbit Breeders (*Zentralverband Deutscher Rasse-Kaninchenzuechter e.V., ZDRK*).

The National Committee on AnGR met twice (Feb 2008 / Jan 2009). During the second meeting the "List of Animal Genetic Resources for Food and Agriculture in Germany - Inventory of Indigenous Livestock Breeds with Classification into Categories of Stock Endangerment" was revised, and the classification of the individual breeds was checked and corrected. The current classifications were published by the IBV of the BLE as "Red List of Endangered Indigenous Livestock Breeds in Germany" in the form of a brochure, and provided with basic information regarding this topic.

In 2008 a new collaborative project "GenoTrack" a FUGATO subproject lead by Ludwig-Maximilians-University of Munich aims to genotype carefully selected groups of animals of different breeds of cattle at 54,000 SNPs and to use this information to pursue different issues. In the centre of this approach is the description of the genetic architecture in the form of haplotype inventories of individual populations. In addition chromosome segments can be identified which e.g. differ in their level of homozygosity significantly from the total genome. It can be new dimensions for inbreeding and genetic diversity derived.

## Actions planned for the next year

In addition to the above mentioned, an equivalent process for the species of sheep and goat is in preparation in close cooperation with the Federation of German Sheep Breeding Associations (*Vereinigung Deutscher Landesschafzuchtverbaende e.V., VDL*) and the Federation of German Goat Breeders (*Bundesverband Deutscher Ziegenzuechter e.V., BDZ*).

Tasks in the future will also be to include, evaluate and document the data from monitoring. With the help of the relevant scientific bodies (e.g. Institute of Farm Animal Genetics of the Friedrich-Loeffler-Institute, the National Committee on AnGR and the Genetic-statistical Committee of the German Society for Animal Production), the Information and Coordination Centre for Biological Diversity (IBV) of the BLE will perform the administrative, technical and content-related supervision and supplementation.

The technical environment and internet design of the TGRDEU is up-dated in order to facilitate content-related updates and corrections and present the facts consumer-friendly. In this context, the transfer of data about cryogenic resources will be pursued too. IBV is investigating possibilities to host CryoWEB, a databank and web-based data collection tool which was developed at the FLI in Mariensee. The databank already comprises the semen collection of Mariensee of the cattle breed Schwarzbuntes Niederungsrind.

The brochure "Red List of Endangered Indigenous Livestock Breeds in Germany" will be updated with new information on poultry and rabbit breeds.

#### STRATEGIC PRIORITY AREA 2: SUSTAINABLE USE AND DEVELOPMENT

# Actions undertaken during the past year

A primary target of the "National Programme on AnGR" is the preparation, formulation and implementation of breeding schemes within the breeders' associations that are markedly focused on maintenance. It is not least the livestock Breeding Act, amended in 2006, which spotlights this task and commits breeders and associations to it.

These requirements have been brought to discussion for numerous endangered breeds, and preparations for implementation in the articles of the breeders' associations have been made too.

Also to be mentioned at this point are the altogether 74 promotion schemes of the *Bundeslaender* which are established under the Reg. (EC) No 1698/2005 (ELER Reg.) for 45 different breeds of the species of horse, bovine, pig, sheep and goat.

Recently, the "regulation on breeders' organisations", as another implementation of the amended livestock Breeding Act, has been adopted. It aims to incorporate in a targeted manner methods and structures of breeding and maintaining endangered breeds.

Actions planned for the next year

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## STRATEGIC PRIORITY AREA 3: CONSERVATION

## Actions undertaken during the past year

The Federal Ministry decided to assign the organisation and creation of a structural model for a "National Cryobank" to FLI which will comprise the building of central storage facilities and management of the reserve. BLE will provide FLI during the first years with legislative expertise concerning the relevant contracts and later on take over documentation.

## Actions planned for the next year

The financing of the National Cryoreserve will be discussed between Federal and Laender Governments.

The BLE will launch a project to support the establishment of the National Cryobank and possibly to gain new portions in the process, where necessary.

In this regard issues relating to support, rights of property and disposal as well as administrative matters of the levels of governance, but also questions of breeding, veterinary hygiene and legislation are subject to clarification. Especially the National Committee on AnGR and the Institute of Farm Animal Genetics of the Friedrich-Loeffler-Institute in Mariensee play a leading role here. A web-based database system (Cryo-Web) was developed as a coordination and management tool for the documention of a National Cryobank to which all information on the cryogenic material to be stored including individual information on the donor can be added.

# STRATEGIC PRIORITY AREA 4: POLICIES, INSTITUTIONS AND CAPACITY BUILDING

# Actions undertaken during the past year

Since 1<sup>st</sup> January 2008, the ways to promote animal genetic resources are more clearly formulated in the joint task of the Federal Ministry of Food, Agriculture and Consumer Protection (*Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz, BMELV*) for the improvement of "Joint Task for the Improvement of Agricultural Structures an Coastal Protection" (*Gemeinschaftsaufgabe Verbesserung der Agrarstruktur und des Küstenschutzes, GAK*). In this context, the aim of this is also to create promotion options for breeders' associations to support pedigree breeding, maintenance activities and the keeping of herd books.

On the occasion of the International Green Week in Berlin in January 2009, the "Society for the Conservation of Old and Endangered Livestock Breeds" (*Gesellschaft zur Erhaltung alter und gefährdeter Haustierrassen e.V.*, *GEH*) presented the Alpine Landschaf (sheep) as breed of the year.

Furthermore, the GEH is re-organising the Ark Farms. These Ark Farms, which are committed mainly to the organised breeding of endangered domestic animal breeds, serve not only the GEH, but in general as a representative undertaking highlighting the relevance of this issue.

The IBV produced a film on "Agricultural Biodiversity in Germany". The purpose of the film "Schafnase, Saibling and Totleger – life is diverse" is to familiarise a wider audience with this topic in a comprehensible manner (for further information see under the following link: http://www.genres.de/genres\_eng/service/service\_vid.htm).

In summer 2009 the members to the National Committee on AnGR were confirmed, and new members will probably be appointed, as appropriate.