



Progress report on the implementation of the *Global Plan of Action for Animal Genetic Resources* - 2007 to 2011

European Regional Focal Point for Animal Genetic Resources (ERFP)

Strategic Priority Area 1: Characterization, Inventory and Monitoring of Trends and Associated Risks

Most relevant strategic priorities and actions:

Strategic Priority 1, Action 6: *"Strengthen global and regional information systems ..."*

Strategic Priority 1, Action 7: *"Establish or strengthen existing breed endangerment early-warning and response systems, through the further development of national, regional and global risk monitoring mechanisms..."*

In the FABISnet project (2007-2010), which was financially supported by the EU under the Council Regulation 870/2004 Call and received additional annual contribution from ERFP, European institutions developed the regional "European Farm Animal Biodiversity Information System" (EFABIS). So far 15 European countries have joined the FABISnet and use EFABIS as national database. EFABIS enables transfer of data straight into the global information system, DAD-IS, at the FAO.

Since the end of the project in 2010 the ERFP Working Group on Documentation and Information is working on a draft concept for the future of EFABIS to turn it into a permanent information infrastructure for animal genetic resources in Europe. The work of the ERFP Working Group is supported by a project under the "ERFP Call for Action" on models assessing the breeds risk status by utilisation of population and relevant geo-referenced data.

A project also financially supported by ERFP under the "ERFP Call for Action" aimed to harmonise the different existing concepts of risk status and endangerment criteria in order to provide comparable risk status at country, regional and global level. The work is now continued in the ERFP Task Force on Risk Status and Indicators.

Endangerment criteria are published in EFABIS but the risk monitoring mechanisms are national responsibility.

SEBI 2010 (Streamlining European 2010 Biodiversity Indicators; <http://www.eea.europa.eu/highlights/new-toolkit-forbiodiversityconservation-sebi-2010-set-of-indicators-launched>), a Pan European initiative launched in 2005 aimed to develop a European set of biodiversity indicators to assess and inform about progress towards the European 2010 targets. One of the indicators, which were finally established in 2010, relates to livestock diversity.

Finland reports extensive collaboration between domestic and foreign universities, research centres and industry on molecular characterisation and breeding value estimation (REML, BLUP, genomic selection, inbreeding, QTL, breed history etc.). Greece reports several international & regional projects dealing with characterisation (no further details).

Latvia and Estonia collaborate in the field of molecular characterisation.

DAGENE, the International Association for the Conservation of Animal Breeds in the Danubian Region, organises data collection in the region (CH, CZ, HR, HU, MD, RS, RO, RU, SI, SK).

NordGen maintains and updates the Nordic and Baltic farm animal breed register and initiates research and development projects on the characterisation, conservation, management and sustainable use of AnGR. The most recent projects are on a clarification of the current status of the Nordic brown bee (*Apis mellifera mellifera*) in the Nordic and Baltic countries (<http://www.nordgen.org/index.php/en/content/view/full/63/>) and the “Nordic Research Network on Animal Genetic Resources in the Adaptation to Climate Change” (<http://www.nordgen.org/index.php/en/content/view/full/1689>).

Rare Breeds International (RBI) held a workshop in London, UK on “Breeds at Risk: Criteria and Classification” in February 2010 dealing with the question of different breed endangerment definitions across Europe (<http://www.rarebreedsinternational.org/london.html>).

The SAVE Foundation Project Office acquires data for the securing and long-term conservation of genetic resources for regional and species monitoring in order to carry out:

- 1) Recording and documentation of endangered breeds of farm animals and varieties of cultivated plants using surveys, studying old agricultural and veterinary publications and by field work in specific areas.
- 2) Monitoring in order to call for action to be taken, if necessary. SAVE also provides and facilitates information exchange, coaching and training.
- 3) Raising awareness, both in the wider public and in decision makers as well as regular assessment of a possible need for action, alarming of responsible institutions and organisations.

In this context SAVE e.g. carried out a survey on donkey breeds (finished 2008, <http://www.save-foundation.net/pdf/donkey.pdf>).

Strategic Priority Area 2: Sustainable Use and Development

The European Commission held a public consultation on the “Implementation and Ratification of the Nagoya Protocol on Access to genetic resources and Benefit Sharing arising out of their utilisation (ABS)” of European stakeholders. The 43 answers received are published under the following link: http://ec.europa.eu/environment/consultations/abs_en.htm.

Financial support under the "ERFP Call for Action" for the “SUBSIBREED” (Proper way of supports for endangered livestock breeds) project focussed on appropriate support measures for local livestock breeds in the EU. Together with Slovenia as project leader the countries involved as project partners included AT, CZ, EE, FI, GR, HU, ME, NL, NO, PL, PT, RS and TR. A publication of the findings including responses from participating countries is due in 2012.

The ERFP Task Force on Access and Benefit Sharing, established 2010, is involved in the current discussions on access to, and the fair and equitable sharing of benefits arising from the use of animal genetic resources. The next meeting is planned in preparation of the regional workshop on ABS in Bonn, Germany in June 2012 (http://www.rfp-europe.org/fileadmin/SITE_ERFP/TF_ABS/ERG_ABS_draftInvitation.pdf).

Financial support under the “ERFP Call for Action” was given for a workshop on "Conservation of livestock genetic resources by utilisation" which was held in Iceland in 2009 (<http://www.rfp-europe.org/index.php?id=501>).

Albania reports collaboration of Balkan countries with cross-border and regional projects (no further details).

Greece reports participation in several international / regional projects, workshops and meetings dealing with sustainable use of animal genetic resources (no further details).

CGN organised an international expert workshop in Wageningen, the Netherlands in December 2010 on “Exploring the need for specific measures for access and benefit-sharing of animal genetic resources for food and agriculture”. The meeting was sponsored by Ministry of Agriculture, Nature and Food Quality, the Netherlands, Norwegian Ministry for Agriculture and Food and the Federal Office for Agriculture, Switzerland (<http://www.cgn.wur.nl/UK/CGN+General+Information/Education+and+information/Seminars/>).

In 2011 SAVE established the Arca-Deli® Award and the HERTASTE® label (<http://www.save-foundation.net/english/market.htm>). Heritaste® (<http://www.save-foundation.net/marketing/HERITASTE-en.htm>) – this is a voluntary certification verified by a third party and awarded by SAVE Foundation to farmers and producers who wish to add value to their products through extra labelling. Heritaste® guarantees that the product comes from breeds and varieties considered to be a part of the local cultural heritage and in need of promotion in order to secure their conservation. Products range from meat and dairy products through to clothing and carpets. Services include extensive grazing of protected areas as well as therapies and tourist

attractions.

Arca-Deli® (<http://www.save-foundation.net/marketing/Arca-Deli-en.htm>) – the Arca-Deli Awards are presented annually (starting 2011) to products and services of locally adapted livestock breeds and cultivated plants. The award is presented to products and services seen as being recommendable as a model or example of good practice. The Arca-Deli Award label can then be used on labelling of products and services as a means of adding value.

Arca-Deli provides a good alternative for those farmers and producers who cannot afford or do not require a Heritaste certificate. The award can be valuable especially on local markets and encourages other farmers and producers to improve the quality of their own products and services. This means that the niche products associated with locally adapted breeds and varieties become, on a small scale, more competitive and more economically viable.

The Slow Food Foundation for Biodiversity initiated “The Ark of Taste” (http://www.fondazione Slow Food.it/pagine/eng/arca/cerca.lasso?-id_pg=36). Passengers to the Ark are small-scale quality productions threatened by industrial agriculture, environmental degradation and homogenisation. A number of rare breeds are also on board like Linderöd pig from Sweden, Bretonne Pie Noir cattle from France or Drenthe Heath Sheep from the Netherlands.

Three EU schemes (http://ec.europa.eu/agriculture/quality/schemes/index_en.htm) known as PDO (protected designation of origin), PGI (protected geographical indication) and TSG (traditional speciality guaranteed) promote and protect names of quality agricultural products and foodstuffs.

PDO covers agricultural products and foodstuffs which are produced, processed and prepared in a given geographical area using recognised know-how.

PGI covers agricultural products and foodstuffs closely linked to the geographical area. At least one of the stages of production, processing or preparation takes place in the area.

TSG highlights traditional character, either in the composition or means of production.

The labels may also support marketing of products derived from rare breeds like e.g. the German “Diepholzer Moorschnucke” sheep (PDO, granted in 1998; http://ec.europa.eu/agriculture/quality/door/documentDisplay.html?chkDocument=1241_1_en) or Ox from Limpurg cattle applied for in 2011.

Strategic Priority Area 3: Conservation

Most relevant strategic priorities and actions:

Strategic Priority 8, Action 2: *“Encourage the development and implementation of national and **regional in situ conservation programmes** for breeds and populations that are at risk ...”*

Strategic Priority 10: *“Develop and implement **regional and global long-term conservation strategies**”*

Strategic Priority 9, Action 2: *“Establish or strengthen national and **regional facilities for ex situ conservation**, in particular cryogenic storage. Support the efforts of countries within a region that have opted to establish a regional facility.”*

Ex situ Conservation:

A “European Training Workshop on Gene Banking and Cryopreservation” was organised in Lelystad, Netherlands in June 2010 by the Centre for Genetic Resources of Wageningen University and Research Centre (CGN), in collaboration with and cofunded by ERF and FAO (<http://www.cgn.wur.nl/UK/CGN+General+Information/Education+and+information/Seminars/>).

The ERF Working Group on Ex situ Conservation provides guidance for the ERF Assembly and further supports and coordinates work on Ex-situ Conservation of Animal Genetic Resources throughout Europe. With regard to the ERF Multi-Year Programme of Work the following points are taken into consideration:

- how are cryo-conservation schemes organised and how are breeding associations and AI centres involved in different countries;
- what are European and national (sanitary) legislation governing the collection and cryo-conservation of genetic material - review of available technology and urgent needs of legislation;

- establishment of a European Cryobank.

As part of the AGRI GENRES 020 FABISnet project, CryoWEB was developed in the Institute of Farm Animal Genetics (FLI) in Germany on the basis and concepts of the CryoIS software used for the Dutch gene bank with the intention to be a generally applicable gene bank documentation system. CryoWeb is used by a couple of European countries already: Austria, Estonia, Finland, Georgia, Greece, Iceland, Italy, Netherlands, Slovakia, Slovenia and Switzerland.

NordGen provides tools for the design of cryo-banking of genetic materials and to maintain genetic variation in living populations, e.g. with the EVA programme. EVA is a software tool aimed at describing inbreeding in a population and to predict genetic contributions to maximise response to selection given a penalty on rate of inbreeding (<http://www.nordgen.org/index.php/en/content/view/full/1715>).

In situ Conservation:

Financial support under the “ERFP Call for Action” provided means for assessment of local breeds and enabled regional collaboration for breeding programmes for a number of breeds: Brachycerous cattle, Murinsulaner horse, Pramenka sheep, Podolic cattle and Busha cattle. Other projects facilitated collaboration and regional networking for sustainable breeding programmes for transboundary breeds on the Balkans.

CGN in collaboration with and co-funded by ERFP and FAO held a seminar on “Conservation and use of farm animal genetic resources: challenges in practice” in Wageningen, Netherlands in June 2011 (<http://www.cgn.wur.nl/UK/CGN+General+Information/Education+and+information/Seminars/>).

There is bilateral cooperation between Austria and Hungary in establishment of a Hungarian gene bank. Further collaboration between Austria and Germany, Italy, Slovenia, Croatia and Serbia was not detailed.

Denmark and the Netherlands cooperated in conservation of Jutland cattle.

A project on “Mediterranean biodiversity as a tool for the sustainable development of the small ruminant sector: from traditional knowledge to innovation” funded under the ARIMNET Call (Coordination of the Agricultural Research in the Mediterranean Area) was approved in February 2012. Greece as project coordinator will investigate together with France, Cyprus and Morocco the factors that influence the sustainability of pastoral and rangeland production systems in the participating countries and examine the adaptation strategies to the socio-economic and environmental challenges. The focus is on sheep and goat production. The project aim is to enhance the interactions between local genetic resources and quality products by (i) reviewing the existing strategies and (ii) supporting the development of new ones.

Ireland reports collaboration between breeding organisations for breeds native to Ireland and breeding organisations for the same breeds located in other countries, for the purposes of breed conservation and improvement.

Poland collaborates with Ukraine in management of Hutsul horses as a transboundary population – the studbooks of origin are kept in Poland – by providing breeding material of Hutsul horses and in breeding of the Polish Red cattle as well as training. Further bilateral cooperation with Armenia on organisation of seminars for school children and Lithuania on Whitebacked cattle exists.

The Slovak Republic works with Austria on the Pinzgau cattle; with the Czech Republic on breeding original Valachian sheep and with Slovenia on breeding of Lipizzan horse.

SAVE Foundation conducted a rescue action of Carpathian Buffalo in the Ukraine to secure conservation on the ground (http://www.save-foundation.net/english/PDF/Carpathian_Buffalo_2009.pdf). SAVE also undertakes model projects that are based on in-situ conservation measures. Within the Balkan Programme, SAVE has cooperated with ALBAGENE on a project to establish a rescue station for three endangered Albanian pig breeds in the Buna-Delta, Albania (http://www.save-foundation.net/english/PDF/Buna_Rescue.pdf). Conservation measures were also developed for building nucleus herds of the Prespa Cattle, found in the Albania/Greece cross-border region. These measures were based on extensive search tours and DNA testing (http://www.save-foundation.net/english/PDF/Prespa_cattle.pdf)

Strategic Priority Area 4: Policies, Institutions and Capacity-building

Most relevant strategic priorities and actions:

Strategic Priority 13 Action 3: *“Establish or strengthen, in partnership with other countries, as appropriate, relevant research, training and extension institutions, including national and **regional agricultural research systems**, to support efforts to characterize, inventory and monitor trends and associated risks, sustainably use and develop, and conserve animal genetic resources.”*

Strategic Priority 17: ***“Establish Regional Focal Points and strengthen international networks”***

Strategic Priority 19 Action 1: ***“Support regional and international campaigns to raise awareness of the status of animal genetic resources for food and agriculture, and seek to develop wide support at the government and institutional levels, as well as among the general public.”***

Strategic Priority 23, Action 1: *“Assist all stakeholders to strengthen capacity-building, including by exchange of experience, by enhancing research and educational activities, and by providing **training opportunities, technology transfer and financial resources**, at national, **regional** and international levels ... ”*

Implementation and financing (paragraph 57): *“The international networks for animal genetic resources should be encouraged and strengthened through implementation of the Global Plan of Action for Animal Genetic Resources, noting the **important role of Regional Focal Points and regional networking to build collaborative partnerships, to coordinate regional management efforts in animal genetic resources, to further develop information sharing, and for technical cooperation, training and research.**”*

Council Regulation (EC) No 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) rules the provision of support for the conservation of genetic resources in agriculture. Conservation of local breeds in danger of being lost to farming may be supported with € 200 / livestock unit.

In addition to that, the EU Commission launched a Community programme in the framework of the “Biodiversity Action Plan for Agriculture”. Established by Council Regulation (EC) No 870/2004, the programme promoted genetic diversity and the exchange of information including close co-ordination between Member States and between the Member States and the European Commission. It also facilitated international cooperation on genetic resources, in particular within the Convention on Biological Diversity, and the FAO's Global Plan of Action for the Conservation. After international competitions five actions with collaboration of several Member States and participation of non EU-countries with reference to animal genetic resources were selected (http://ec.europa.eu/agriculture/genetic-resources/index_en.htm):

- AGRI GEN RES 012 EuReCa (2007-2010): Towards self-sustainable European, REgional CAttle breeds - assisting conservation, development and sustainable use of autochthon, local or regional cattle breeds;
- AGRI GEN RES 020 EFABIS (2007-2010): European Farm Animal Breeds Information System (see SP1);
- AGRI GEN RES 040 Heritage Sheep (2007-2009): Conservation of genetic resources of Heritage Sheep Breeds - conserve the genetic resources of Heritage (= regional) Sheep Breeds;
- AGRI GEN RES 066 ELBARN (2007-2010): European livestock breeds ark and rescue net - a concerted action to motivate, document and network towards rescue, in-situ conservation and use of under-utilised agricultural genetic resources in Europe;
- AGRI GEN RES 067 GLOBALDIV (2007-2010): Global view of livestock biodiversity and conservation - international experts related to the characterisation of farm animal genetic resources reviewed the main drivers of biodiversity loss and the main strategies for FAnGR conservation.

The ERFPP Task Force on Agri-environmental Measures addressed the conditions for keeping local breeds and drafted a letter to the EU authorities speaking in favour of the continuation of Council regulation no. 870/2004.

ERFPP also took the opportunity to comment on the Community Programme and presented findings of stakeholder consultations. The respective questionnaire was filled in and sent back to the EU Commission for consideration in January 2012.

The ERFPP had been established in 2001, well before the adoption of the GPA, and for more than 10 years now has been

serving as a network system and communication platform for the exchange of experience and information for National Coordinators for Animal Genetic Resources in Europe.

Experience gathered since its establishment has led to the adoption of new Terms of Reference for the organisation of ERFP in the Assembly in 2010, as well as the formulation of a Multi Year Programme of Work (MYPOW) for the period 2010 to 2014. ERFP now has a new, clearly defined strategical focus and the corresponding bodies for the execution of short- and long-term tasks with a view to the Strategic Priorities for Action of the GPA.

ERFP works with existing operational structures in countries and seeks partnerships and collaboration with existing European organisations such as EAAP, SAVE, RBI and NordGen, representatives of which are also invited to the annual ERFP Assembly. ERFP has been involved in facilitating regional communications, providing technical assistance, coordinating training, research and planning activities amongst countries, development of regional policies, assisting in identifying projects and interacting with government agencies, donors, research institutions and non-government organisations.

Several projects financed under the "ERFP Call for Action" facilitated capacity building and provided training opportunities for National Coordinators and other experts on AnGR: a series of workshops jointly organised with EAAP and FAO for European NCs on strategies relevant for the genetic management and sustainable use/breeding of AnGR; a workshop was held in Vilnius, Lithuania in 2008 on the "Current status of the implementation of the Global Plan of Action in Europe" and a project helped strengthening the capacity of Balkan's Network for agro-biodiversity of livestock.

Finland established research collaboration with central and eastern European countries (no further details).
Netherlands (Centre for Genetic Resources) reports bilateral projects, training and workshops (no further details).
Switzerland had organised a transboundary workshop in 2010 with participation of Germany and Austria on AnGR. The main issue was their definition of breeding goals for endangered breeds.

DAGENE organises conferences, field visits, publications and facilitates projects in the Danubian region.
The European Federation of Animal Sciences (EAAP) has a Working Group on Animal Genetic Resources (WG AnGR) which facilitates exchange of experience between scientists, organises workshops on the subject of AnGR and at the annual EAAP Conference and participated as partner in the EFABIS project.

The European breeding industry is organised in the "European Forum of Farm Animal Breeders" (EFFAB). The platform is coordinating the discussion between the breeding industry, public organisations, national authorities, EU legislation, development and research bodies.

NordGen Farm Animals frequently organises workshops, seminars and courses (<http://www.nordgen.org/index.php/en/content/view/full/1563>), facilitates cooperation among different stakeholders and groups and provides a variety of information channels as website, electronic newsletter, periodicals, folders, articles and reports.

RBI supports and organizes meetings, publications and networking between both non-governmental and governmental groups also at regional level. The 8th RBI Global Conference at Tekirdag, Turkey, provided an opportunity for further cooperation with ERFP and exchange of experience and information between European and international experts (http://www.rarebreedsinternational.org/turkey_report.html).

The SAVE Foundation (Safeguard for Agricultural Varieties in Europe) is an international non-governmental organization that acts as an umbrella organization for European associations working for the conservation of agrobiodiversity. SAVE Foundation works on three levels: basic projects – rescue projects to secure conservation on the ground; networking – of stakeholders from civil society, science and governmental bodies; model projects – implementing actions to show best practices.

SAVE also maintains the Arca-Net (<http://www.arca-net.info/pages/frame.asp?sprache=en>), which is a network of European institutions that keep endangered livestock breeds or rare cultivated plants, making them known to the public. Arca-Net was a useful tool and updated in the ELBARN project (see above).

At the beginning of 2011, SAVE launched "Variety-Savers" (<http://variety-savers.net/>) a dedicated social network for networking and listing all keepers of indigenous livestock breeds and cultivators of indigenous cultivated plants found in Europe.

Implementation and financing of the Global Plan of Action for Animal Genetic Resources

Most relevant paragraph:

Implementation and financing (paragraph 50): “... *implementation of the Global Plan of Action for Animal Genetic Resources will require substantial and additional financial resources and long-term support for national, regional and international animal genetic resources programmes and priority activities, provided such incentives are consistent with relevant international agreements. The process should encourage and support the participation of governments and all relevant stakeholders. **Regional and international collaboration will be crucial.***”

In the past, the ERFP budget consisted of the voluntary contributions by a few donor countries. Financial support was given to a number of projects financed under the annual “ERFP Call for Action”.

With the adoption of the Terms of Reference in 2010 the ERFP Assembly also agreed that all ERFP member countries pay a contribution to ERFP according to the scale as laid down in the annex to the Terms. The budget of € 123,500 covers expenses for meetings of the ERFP bodies, general expenses of the Secretariat, a contribution to EFABIS and for ad hoc actions, reflecting the Strategic Priorities for Action of the GPA.

Switzerland, Germany and Norway contributed a total of approx. € 780,000 to the FAO Trust Account.