



Animal Genetic Resources Strategy

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ERFP
European Regional Focal Point
for Animal Genetic Resources



Background – European genetic resources strategy

- The three domains joined = plant, forest, animals in GenResBridge project
- Main outcome is integrated European strategy for GR
- The integrated strategy excellent possibility for each domain to develop its own strategy
- ERFP decided to take this route
- Ad hoc group: SC members + project partners
- Regular meetings to prepare various drafts and monitor progress



Current status

Where did we come until today?

- Agreed skeleton
- After many versions and revisions - clean version
- Text of the strategy ready for revision by WG members
- *Ad hoc* action group (apr. SC) propose outside expert to help us to proceed
- WG comments and revision will be taken on board after this meeting
- Advanced draft - hopefully by the end of June



Why strategy?

- Need to conserve and sustainably use AnGR.
- Maintain a broad genetic base for agriculture and food production.
- Countries committed to implement FAO GPA.
- EU developed different AnGR related legal acts and policies.
- Stronger commitment at national and pan-European level is needed.
- European strategy for AnGR needed for coordinated approach to conserve and sustainably use AnGR.
- Integrated EGRS strategy and AGRS are complementary.
- **AIM: minimize the loss of genetic diversity, support breeding, diversification and innovation and build resilience in the livestock sector.**



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Genetic resources strategy for AnGR – Assessment

Assessment of current situation

- Livestock sector in Europe (dominant species cattle, pig, sheep, goat).
- Wide range of unique livestock breeds have been developed.
- Gradual replacement of local breeds by specialized, high productive international breeds.
- A high proportion of local breeds became endangered!!
- **Proportion of breed at risk Europe + Caucasus = 53%!!**
- **Concerns about loss of genetic diversity within and across breeds.**
- High input high output prod. system – specialized breeds perform better.
- Traditional and local environment – local breeds are better adapted.



STRENGTHENING CONSERVATION AND SUSTAINABLE USE (1)

2.1. Advancing characterization, performance recording and monitoring

- Characterization + monitoring = foundations of sustainable use.
- Knowledge is fundamental for conservation.
- Long term goal = to improve understanding of the status, trends, associated risk and characteristics of all aspects of AnGR.
- Result of better understanding will enable decision making.
- Inventories, breed characteristics, sustainable breeding programmes.

2.2. Sustainable use, genetic improvement and utilization

- Genetic improvement, genetic diversity, sustainable breeding programmes.
- AnGR as the base for breeding and selection – sustainable breeding programmes.
- Genetic diversity within species/breeds is of key importance
- Local breeds/unique characteristics – integration with specific agroecosystems/production systems (Green Deal; Farm to Fork strategy)
- Sustainable use of mainstream breeds – guarantee the food supply.



Key commitments on SUSTAINABLE USE (2.2)

Draft Key commitments:

- → Support and strengthen the development and implementation of sustainable breeding programs, including selective breeding and maintenance of within-breed genetic variation
- → Strengthen characterization and performance recording for the purpose of strengthening breeding and conservation programs of both mainstream and local breeds
- → Promote innovations and new technologies in breeding and AnGR management
- → Promoting to make better use of AnGR diversity in the context of diversification of livestock production systems and livestock products
- → Valorization of AnGR and their specific (niche) products and ecosystem services, and incorporate agro-ecology principles in livestock sector development and AnGR management



STRENGTHENING CONSERVATION AND SUSTAINABLE USE (2)

2.3 Improving conservation strategies

- Importance of conservation and importance of complementary methods.
- Explanation of both methods, what we consider as *in situ*/*ex situ*.
- Current state at global and European region – presented in both sub-chapters.

2.3.1 Strengthening *In situ* conservation strategies

- AnGR maintained by farmers/breeders. *In situ* = breeding and use.
- Breeds at risk have different values and unique traits = require conservation efforts.
- Successful *in situ* = well designed breeding programme, emphasis on maintaining genetic diversity within the breed.
- Financial support for *in situ* conservation needed, niche marketing.
- Europe *in situ* programmes - well developed, coverage of *in situ* activities for certain breeds still incomplete.



Key commitments Strengthening In situ conservation strategies(2.3.1.)

Draft Key commitments¶

- → Develop and implement national strategies and action plans for integrated and complementary *in situ* and *ex situ* conservation strategies for AnGR, engaging all relevant public and private stakeholders in the process.¶
- → Improve the communication and raising awareness of the value of AnGR¶
- → Establish links between in situ conservation of local breeds with protected nature areas and the provision and valuation of ecosystem services¶
- → Strengthening in situ conservation capacities in Europe and establish a European network for in situ conservation and management of local breeds at risk.¶
- → Promote and support initiatives and collaboration for *in situ* and *ex situ* conservation of transboundary breeds. □



STRENGTHENING CONSERVATION AND SUSTAINABLE USE (2)

2.3.2 Ex situ conservation

- Public/private gene banks.
- Different actors – governments, research institutes, universities, private breeding com.
- Collections established in many countries, however many breeds in European countries have no material or not sufficient material in gene banks.
- Can serve as long term conservation and support to in vivo conservation.
- Ex situ national programmes establish , implemented or strengthen for all breeds and especially breeds at risk.
- Better implementation and integration between ex situ and in situ.
- Gene banks are not officially recognized – development of EUGENA network.
- Research needed for development, standardization and reproductive technologies and cryopreservation procedures.
- Improvement of information exchange, development of specific policies for gene banks at national level.
- Development of and implementation of quality management systems.



EGRS for AnGR – TRANSITION

3.1. Strengthening policy and legal framework

- Better coordination of policy/legal framework at national and European level.
- Currently, there is no requirement for countries to have National Strategies/action plans.
- No obligation, no legal basis to manage and monitor AnGR at national level.
- Facilitate the implementation of EU Animal Breeding Regulation, EU Reference Centre.

3.2. Actors, institutions and stakeholders

- Wide range of actors described and their important role in preventing treats and support the use and conservation.

3.3. Role of ERFP network, collaboration between different actors, neighbouring countries, transboundary breeds

3.4. Capacity building, education, awareness raising

- Need to implement more specific messages, related to essential role of AnGR for food + nutrition security, product quality and choice.sustainable and resilient livestock breeding, economic overall value to policy makers and general public.



EGRS for AnGR – FINANCING, CONCLUSIONS, ACTION PLAN

3.5 Financing of the strategy

- Different solutions mentioned
 - CAP/EAFRD
 - EIP-AGRI
 - Horizon Europe for Research and Innovation

NOT THERE YET:

5 Conclusions

6 Annex: Action Plan



