



European Regional Focal Point for Animal Genetic Resources

Regional platform for the support of management, conservation and sustainable use of animal genetic resources

ERFP Ad Hoc Action « Transboundary Breeds »

Transboundary breeds: examples and dilemmas.

General Assembly – ERFP - Webinar – 08 September 2021

E. Charvolin Lemaire, E. Sturaro, D. Bojkovski, C. Ligda, D. Tsiokos,
E. Sosin, G. Polak, S. Stojanovic, F. Tejerina



How managing transboundary breeds? Precepts

- Conservation of Biodiversity – CBD 1992
- A particular part of the biodiversity can be shared by several countries
- National Sovereignty
- Europe « hot spot » for Animal Genetic Resources



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Éléonore Charvolin for the ERFP Ad Hoc Action



Definition (FAO 2015)

Transboundary breeds: breeds that occur in more than one country. These are further differentiated as:

- Regional transboundary breeds: transboundary breeds that occur only in one of the seven SoW-AnGR regions.
- International transboundary breeds: transboundary breeds that occur in more than one region.



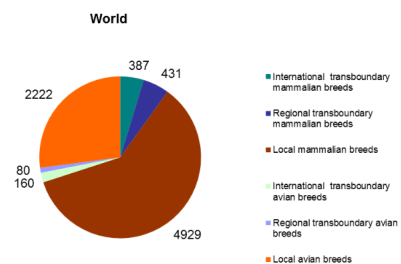
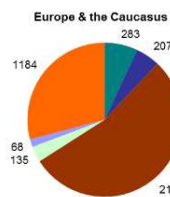
All you have ever wanted to know about ERFP – 09/09/2021
 Transboundary breeds: examples and dilemmas
 Eléonore Charvolin for the ERFP Ad Hoc Action



Important role to play

STATUS AND TRENDS OF ANIMAL GENETIC RESOURCES – 2018 - FAO

Figure 3a. Number of local and transboundary breeds at global level



	Europe	World
Nb of international breeds existing	418 (76%)	547
Nb of regional breeds	275 (54%)	511
Nb of local breeds	3381 (47%)	7151

65% of transboundary breeds is partially or totally managed in the european region

17% of breeds existing in Europe are transboundary



All you have ever wanted to know about ERFP – 09/09/2021
 Transboundary breeds: examples and dilemmas
 Eléonore Charvolin for the ERFP Ad Hoc Action



Europe – a Hot spot for AnGR

- Based on DAD IS
- Half of local breeds reprinted in DAD IS are in Europe
- Half of regional and international transboundary breeds are in Europe
- Lot of exports from Europe

Big responsibility for European region to take care about the Transboundary breeds

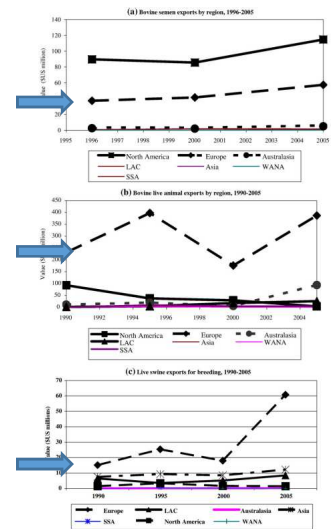


Fig. 1. Exports of animal genetic resources by region: (a) bovine semen exports (1995–2005); (b) live bovine exports (1990–2005); (c) live ovine exports (1990–2005).
D. Gollin et al. / Livestock Science 120 (2009) 248–255



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action



Background

- The conservation of the AnGR is organized mostly around the native breeds, moreover when they are local (present only in their country of origin).
- Transboundary breeds: fragmentation of the population because of the different management measures over each subpopulation in the different country, which makes difficult the optimal conservation of the breed.



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action



Aims of the ERFP Ad Hoc Action on Transboundary breeds

- The general aim:
 - to strengthen the coordination between countries (not only EU Member States)
 - and breeders societies for the conservation and sustainable management of transboundary breeds
- The questions also raised during the Dialogue Forum of the IMAGE project and GenRes Bridge project.
- Result: pathways to develop a common management of the endangered transboundary breeds by developing respective ERFP guidelines.



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action



Material and methods

- Members of the ERFP *Ad hoc* action team are members of the three ERFP WGs and breeding societies experts (which are familiar with the issue of transboundary breeds)
- online meetings to work at two levels:
 - Analysis of available data for transboundary breeds on DAD-IS/EFABIS, identification of gaps and common errors of classification
 - Identification of cases: different species and different geographical areas discussed in order to highlight different AnGR management that would require sharing of knowledge between different countries, but also highlighting actions that could be undertaken by a set of countries.

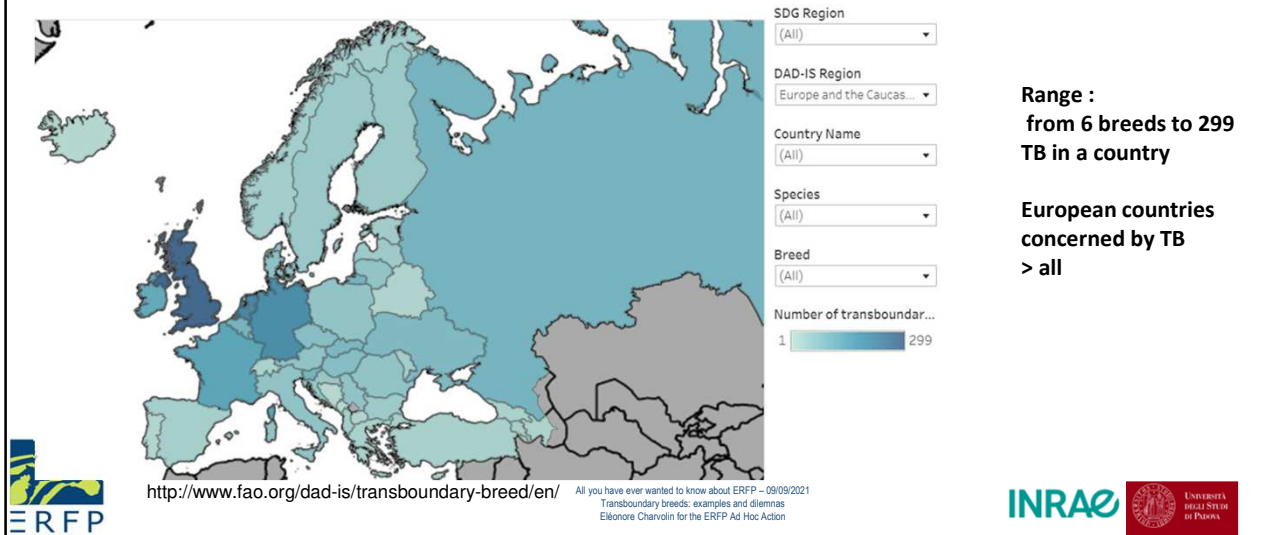


All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action



Transboundary breeds in European region

(02/06/2021 DAD IS)



Transboundary breeds in DADIS/EFABIS (Europe)

Number of different breeds

	Exotic	Local Adapted	Locally adapted	Native	Not Characterised	Total
International	735	14	162	225	942	2078
Local	531	47	171	1383	1656	3788
Regional	164	12	34	151	327	688
Total	1430	73	367	1759	2925	6554

Transboundary breed in Europe: situation per species

	local	international	regional
cattle	493	550	57
chicken	869	275	100
goat	226	118	32
horse	457	351	94
pig	252	180	28
sheep	706	349	198



All you have ever wanted to know about ERFP – 09/09/2021
 Transboundary breeds: examples and dilemmas
 Eléonore Charvolin for the ERFP Ad Hoc Action



Transboundary breeds in DAD IS/EFABIS

- “group of breeds”/”common ancestry”
- Different problems identified in DAD IS = Different responsibility identified
- FAO : problems took into account after our discussion
- Ad Hoc Action for WG Doc and Info > ½ country already contacted individually ; Work to continue

▪ “Error or breed missing in the transboundary breed list” – the members of the **AD HOC ACTION** to investigate with the respective

▪ **NG in ERFP, what was really meant**

▪ **FBNL** . s with the ed on a vo

▪ **purpose, it should be scribe the breed by**

▪ **iously just C ACTION**

▪ **to the transboundary m/her to delete the**

All you have ever wanted to know about ERFP – 09/09/2021
 Transboundary breeds: examples and dilemmas
 Eléonore Charvolin for the ERFP Ad Hoc Action



Grid of analysis of case studies - categories

- Name of the breed/ Countries / Borders
- How it is described in DAD IS (geographical classification of each population, transboundary name, risk status in the countries)
- Type of management(s) within countries, between countries, conservation programs, transboundary organisations and cooperation already existing,
- Genetic description of the populations and scientific references
- Market / non market services (ecosystem services)? and Cultural and other value : Highlight in example



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action



List of 18 case studies, or more

Name of the breed	Countries
Posavje Horse	Slovenia, Croatia
Istrian Pramenka	Slovenia, Croatia, Italy
Istrian Cattle	Slovenia, Croatia
Bovec Sheep	Slovenia, Austria, Germany
Jezerko Solcava sheep	Slovenia, Austria
Trakhener horses	Germany, Lithuania, Russia, Poland, Bulgaria
Hucul horses	Poland, Austria, Ukraine, Slovakia, Czech Republic, Hungary, Romania
Brown Carpathian Cattle	
Whiteheaded Ukrainian	
Lebedyn cattle	

Name of the breed	Countries
Manech (France)/Latxa (Spain)	France/Spain
Brigasque (Sheep)	France/Italy
Bleue Nord Cattle	France/Belgium
Dutch Draught Horse	
Salers Cattle	
Red Dairy Breeds	
Podolic cattle breeds (Podolic group of breeds)	Albania, Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Romania, Serbia, Slovakia, Turkey, Ukraine
Busa Cattle	Albania, Bosnia and Herzegovina, Northern Macedonia, Montenegro, Serbia



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action



Example of interaction between database and in situ expertise - questions

Transboundary breed summary

Species	Transboundary
Horse	Boulonnais

Transboundary breed:	Boulonnais
Species:	Horse
Breed Type:	Mammalian
Geo Classification:	regional
Number of countries reporting the breed:	4
Number of countries reporting population data:	2
Estimated population size:	6235

Most Common Name	Country	National Risk Status	Risk level	Population size Min	Population size Max	Breeding Female	Breeding Male	Female Bred Pure
Boulonnais	Belgium	Unknown	External circle					
Boulonnais	Germany	At Risk	Internal circle	3	3	2	1	
Boulonnais	France	At Risk	Internal circle	6233	6233	3293	506	180
Bourbonnais	France	Extinct	Error	0	0			

- Breed at risk at country and regional level
- One country without population data
- Are there some other countries? What is the management in each country? Is it possible to think together? How encourage cooperation? Are there some ex situ conservation in the different countries?

External circle : breed at risk at regional level

Internal circle : breed at risk at country level, in the 2 countries which report data population

Error : Country responsibility



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action



Conclusion and next steps

- Transboundary breeds need to be clearly defined and correctly recorded in DAD-IS / EFABIS
- The case studies can be used to propose ERFP guidelines for a common management of the transboundary breeds respecting National sovereignty

Next steps

- Contact countries linked with our cases studies to elaborate a good analysis
 - Different level of exchanges between countries : OK / OK but / the breed we have is not the international (even if there are some exchange of material)
- Analyse the gaps in term of examples: other cases studies
- Enhancing the implementation of data in DAD IS/ Transboundary breeds > contact with each country
- ERFP guidelines: a specific physical workshop will be organised in spring 2022



All you have ever wanted to know about ERFP – 09/09/2021
Transboundary breeds: examples and dilemmas
Eléonore Charvolin for the ERFP Ad Hoc Action

