



An approach to build a framework to assess Transboundary Breed cases

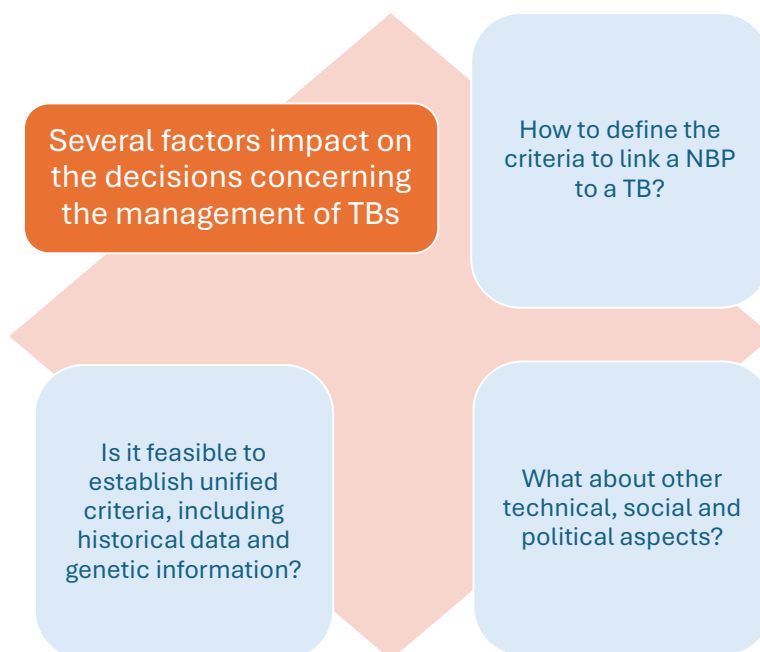
Ch. Ligda

*(It will be presented in the 4th EAAP Regional Meeting, Session 1:
Management of Transboundary breeds: The case of Sarakatsaniko / Karakachan sheep breed*

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1



2

Case study approach

Relevant for NBs that perform common breeding programs or exchange breeding animals, or share common history and/or environment

The case of a breed reported under similar names in DAD-IS

- Bulgaria – Karakachanska
- Greece - Sarakatsaniko
- North Macedonia - Karakacanska
- Serbia – Karakachan
- Turkey – Karakacan

The breeds are not linked to a Transboundary Breed name (in DAD-IS), only in Serbia the Karakachan breed is linked to the Yugoslav Zackel



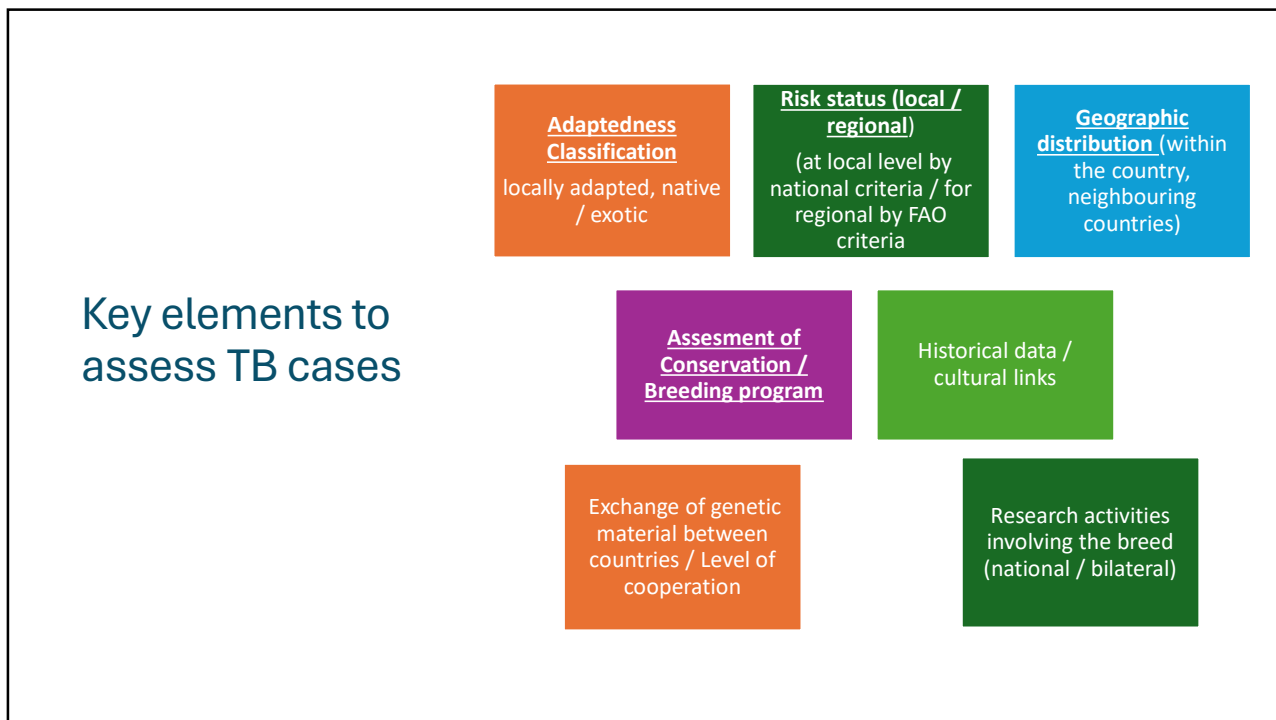
Source: FAO DAD-IS, 2026

3

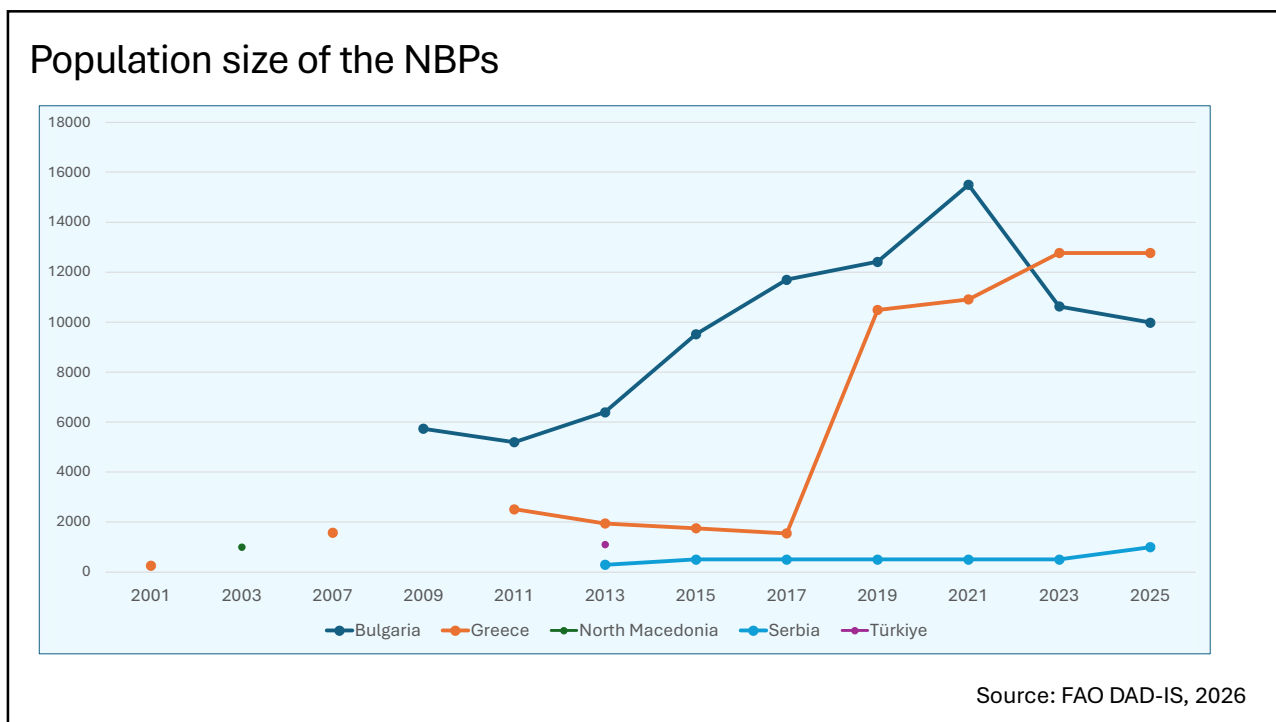
Several countries linked their national breed population to a transboundary breed			
Regional risk status	Not endangered	Not endangered	Endangered
Local risk status	Not endangered in at least one country	Endangered/unknown in all the countries but the total number of animals in Europe leads to 'not endangered' status at regional level (e.g. Ouessant sheep)	Endangered/unknown in all the countries and the total number of animals in Europe leads to 'endangered' status at European level (e.g. Hutsul horse)
Questions/Actions	OK for SDGs calculation as a not endangered transboundary breed	Do countries work together? Is the transboundary breed really not endangered? Should this breed be in SDGs calculations as 'not endangered'?	Do the countries work together? Do we know more about the genetic proximity within the different NBPs? OK for SDGs calculation as endangered transboundary breed
<div style="border: 2px solid orange; padding: 5px; display: inline-block;"> <p style="margin: 0;">↓</p> <p style="margin: 0;"><i>In situ/ex situ</i> case studies</p> </div>			

Charvolin, E.; Tsiokos, D.; Leroy, G.; Ligda, C. Exploring the Situation of Transboundary Breeds in Europe for Their Effective Management and Conservation. *GenResJ* 2025, 6, 73-82.

4



5



6

	Bulgaria	Greece	North Macedonia	Serbia	Turkey
Name of the breed	Karakachanska	Sarakatsaniko	Karakacanska	Karakachan	Karakacan
Linked to a Tb name	No	No	No	Yugoslavian Zackel Group	No
Adaptedness classification	native	native	native	native	native
Risk status					
Local National	Not at risk Endangered maintained	Not at risk Endangered maintained	Unknown	At risk Endangered maintained	extinct
Regional (FAO)	Not at Risk				
Geographic distribution	mainly in South - West Bulgaria	mainly in Thrace (North - East Greece), (also in West Macedonia, Thessalia and Epirus)	Southern part of the country	East part of the country	Thrace (Marmara region)

Source: FAO DAD-IS, 2026

7

	Bulgaria	Greece	North Macedonia	Serbia	Turkey
Breeding / in situ conservation programme	yes	yes	no	yes	no
since when	2001	1998		2012	
Breeders' association	3	2			
Objectives	Conservation	Conservation		Conservation	
Tools (Collective station, mating plan, use of AI, performance recording)					
Ex situ conservation	yes	No	No	No	No
since when	2017				
No of samples / donors	705/3				

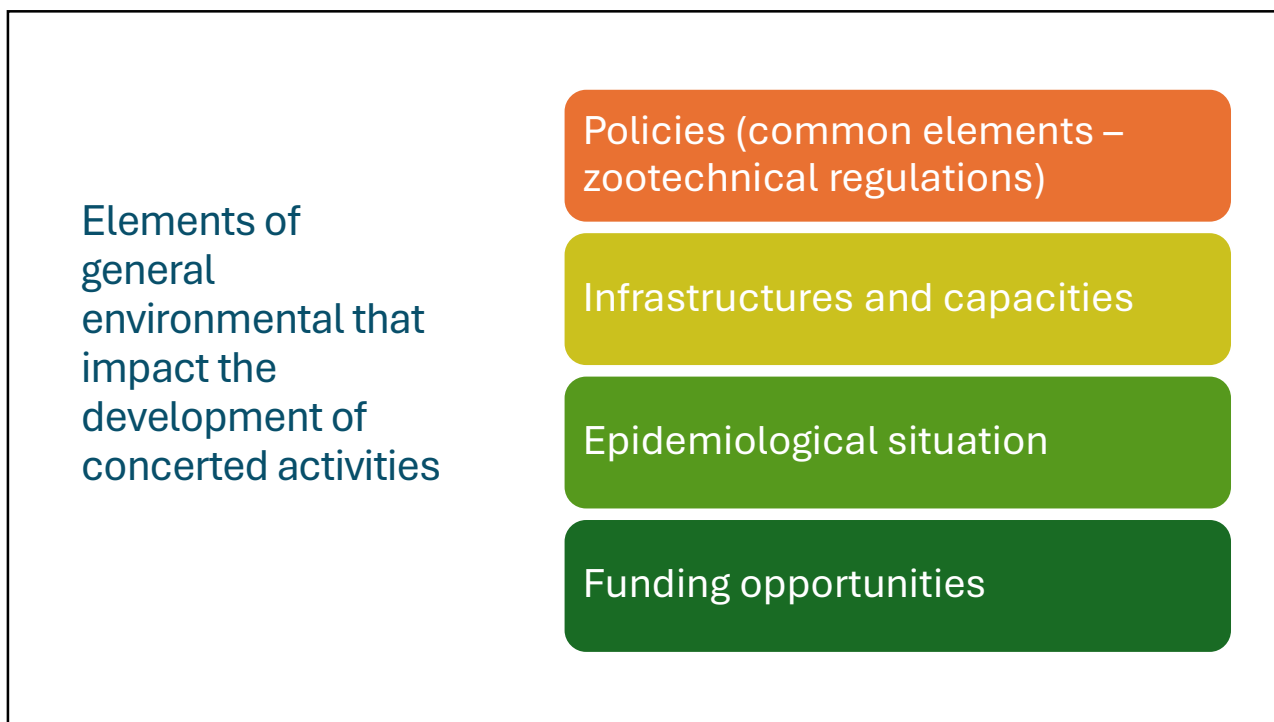
Source: FAO DAD-IS, 2026

8

	Bulgaria	Greece	North Macedonia	Serbia	Turkey
Historical data / cultural links	Strong historical / cultural links, connection with the transhumance practices and movements of populations				
Exchange of genetic material between countries / Level of cooperation					
	no recent exchange				
Research activities involving the breed (national / bilateral)					
	Genetic characterization (national level)	Genetic characterization (national level)	Genetic characterization (national level)		
	activities with NGOs and Natural Parks				

Source: FAO DAD-IS, 2026

9



10

- This framework aims to support decision making
- Can we establish unified criteria for all cases?
- How to integrate the two aspects (breed specific / general environment)?