



THE CHALLENGES FOR LOCAL BREEDS: THE EXAMPLE OF SPAIN



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- 1.- Important challenges of 21st Century**
- 2.- Local Breeds as a tool up the challenges of 21st Century**
- 3.- Challenges for Local breeds in Spain**



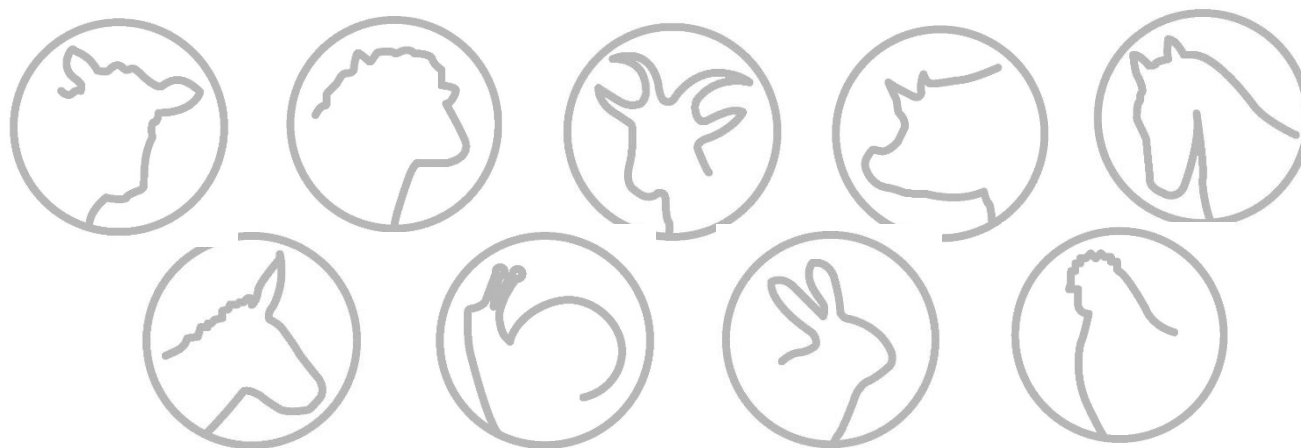


FEDERACIÓN ESPAÑOLA DE ASOCIACIONES DE GANADO SELECTO



1. Important challenges of 21st Century

1



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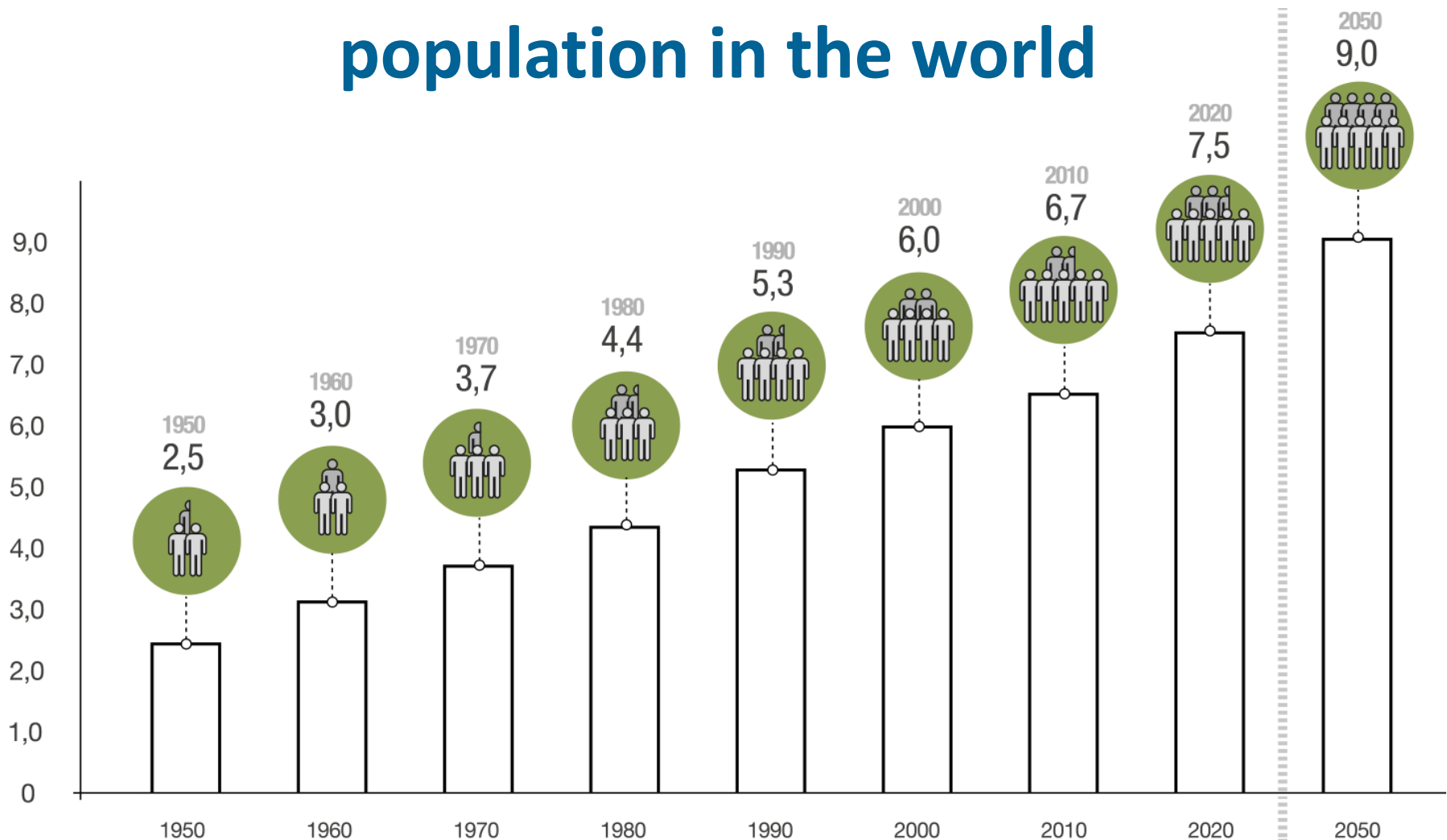
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COLLOQUE
SERAM2

CORAM
races de massifs

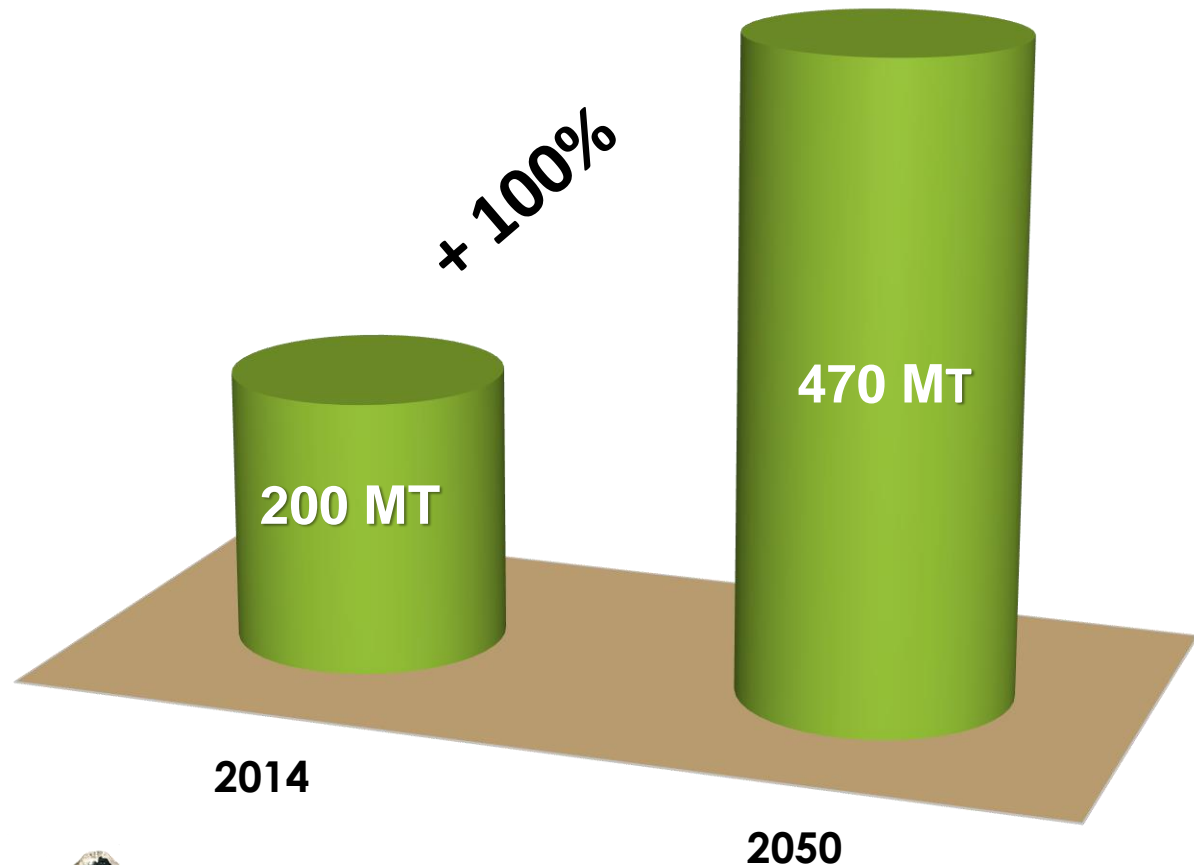
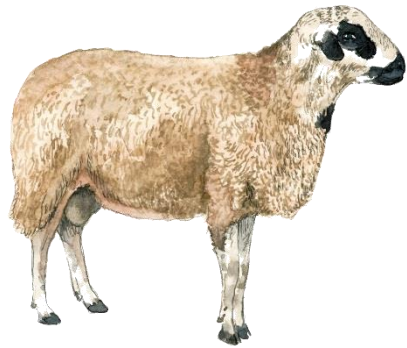
Challenge Number 1

Provide food for the growing human population in the world



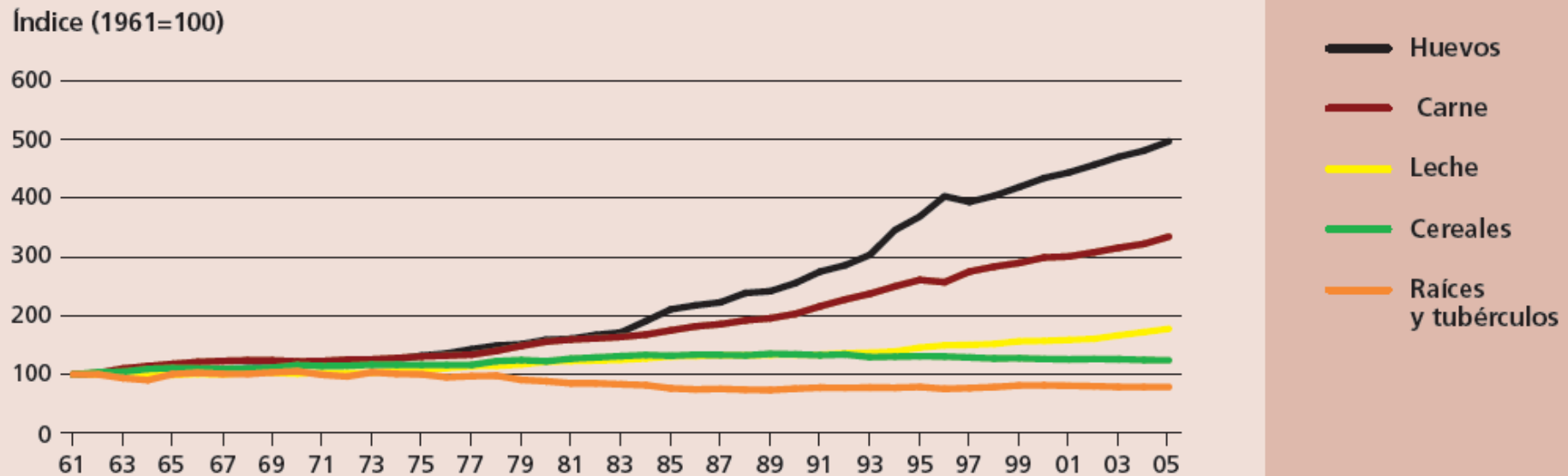


How much should livestock production increase in 2050 to supply the human population that is expected?



Source: FAOSTAT

It is necessary to take and implement measures to meet the growing demand for food in harmony with the environment, that contribute to eradicate poverty and improve human health.



Consumption *per capita* of the main food products
in developing countries, 1961 - 2005



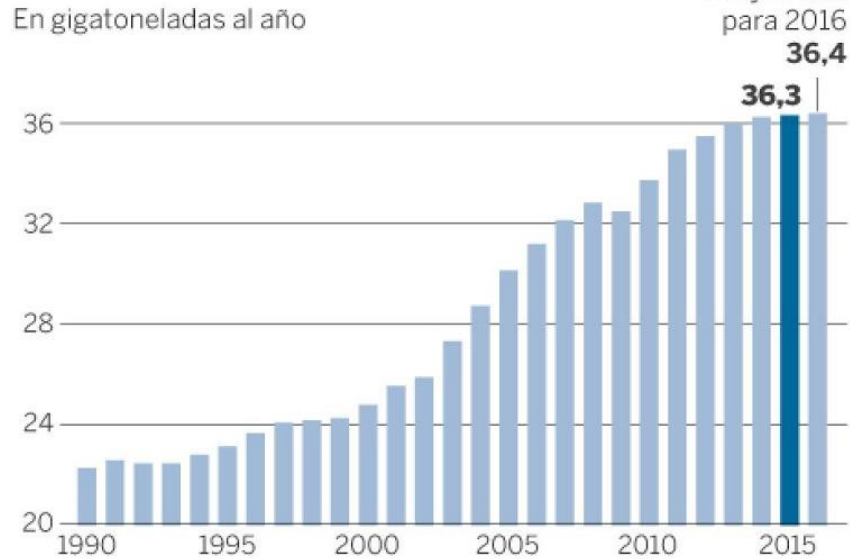
Challenge Number 2

REDUCE GREENHOUSE GASES AND CLIMATE CHANGE

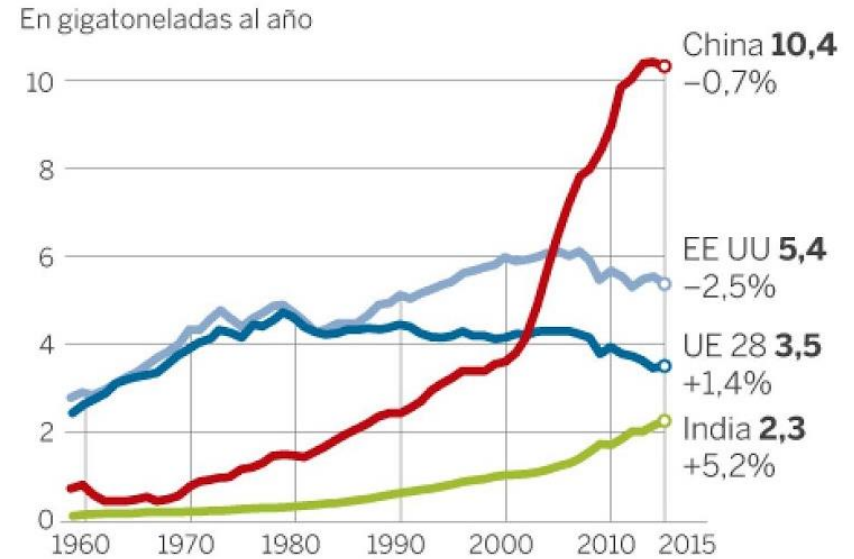


CO2 EMISSIONS FROM FOSSIL AND INDUSTRIAL COMBUSTIBLES

Emissions trends



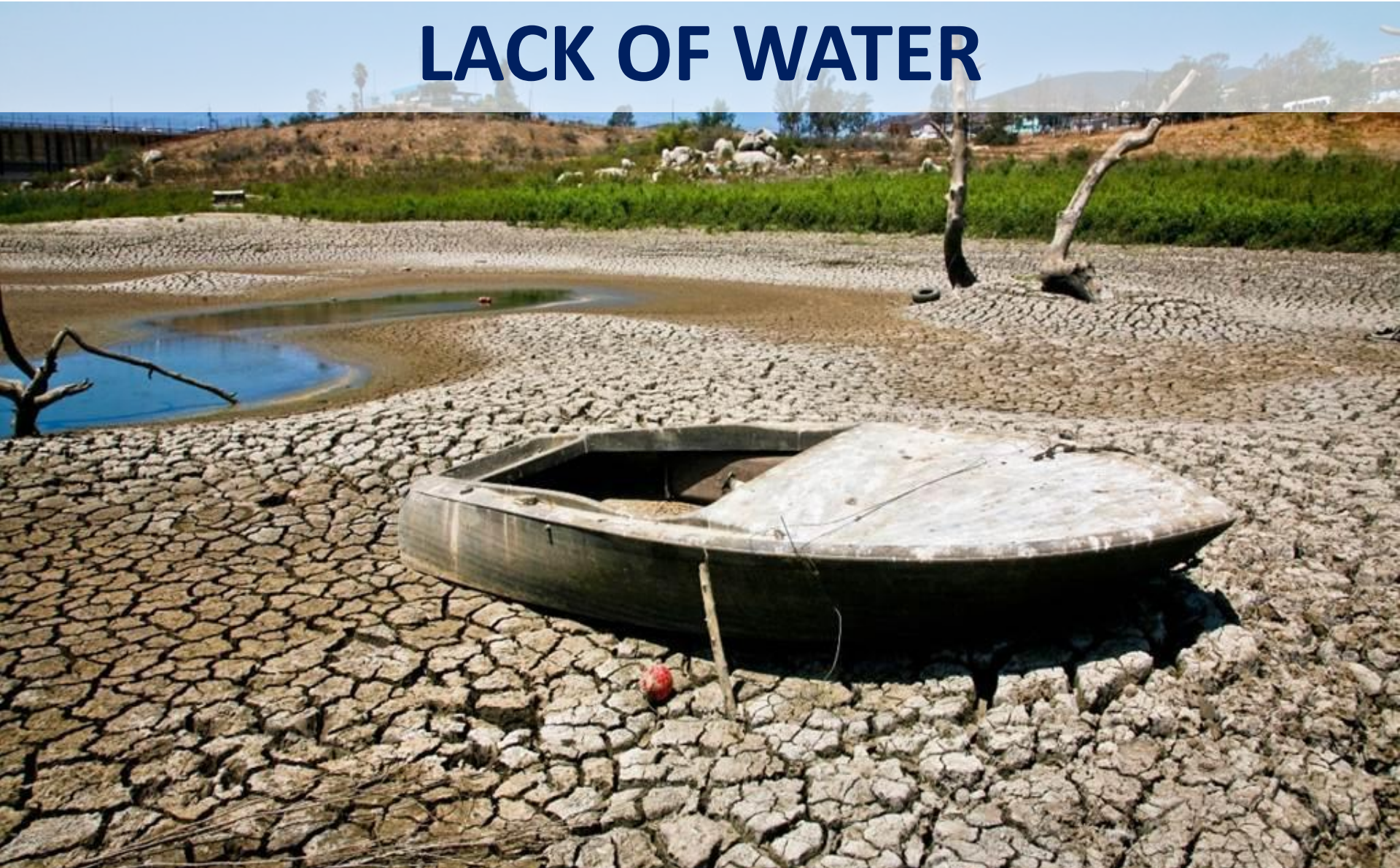
Emissions by country



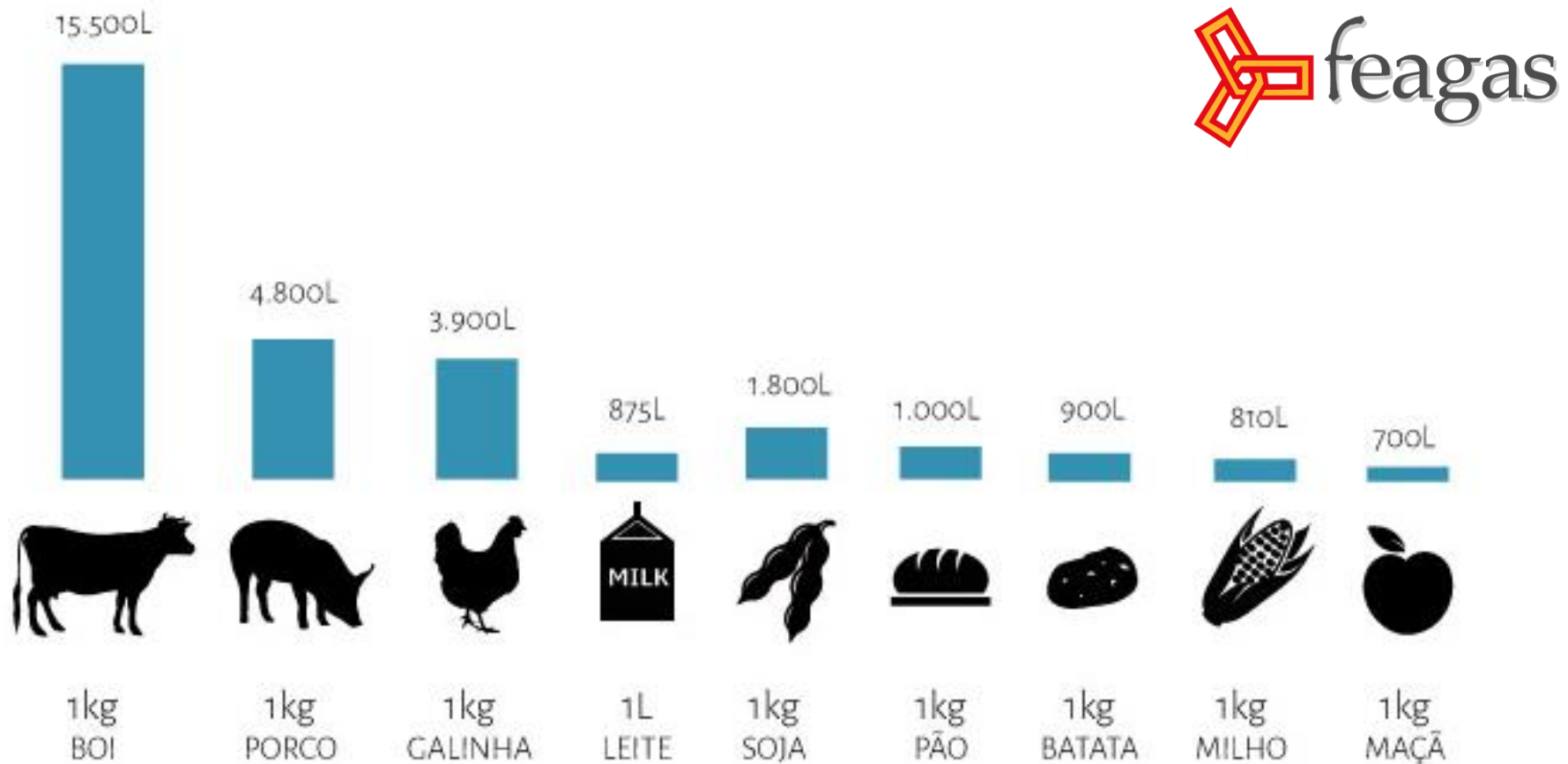
Fuente: Global Carbon Project. EL PAÍS

Challenge Number 3

LACK OF WATER



Water footprint of livestock production

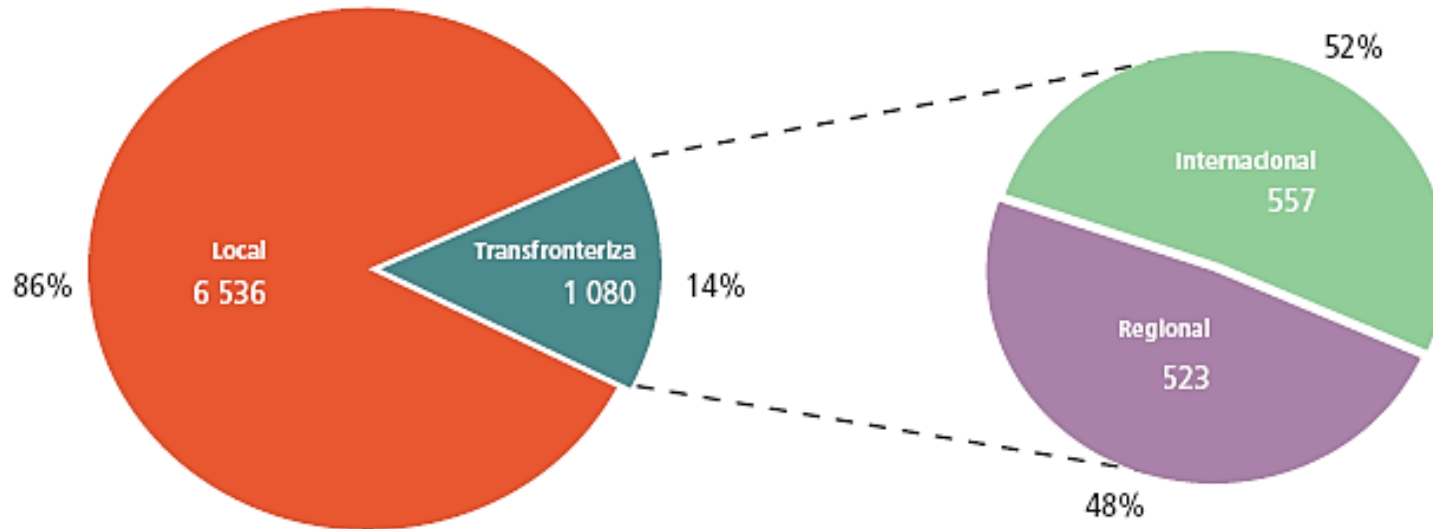


Challenge 4

BIODIVERSITY LOSS



BREED DIVERSITY – GENERAL VISION

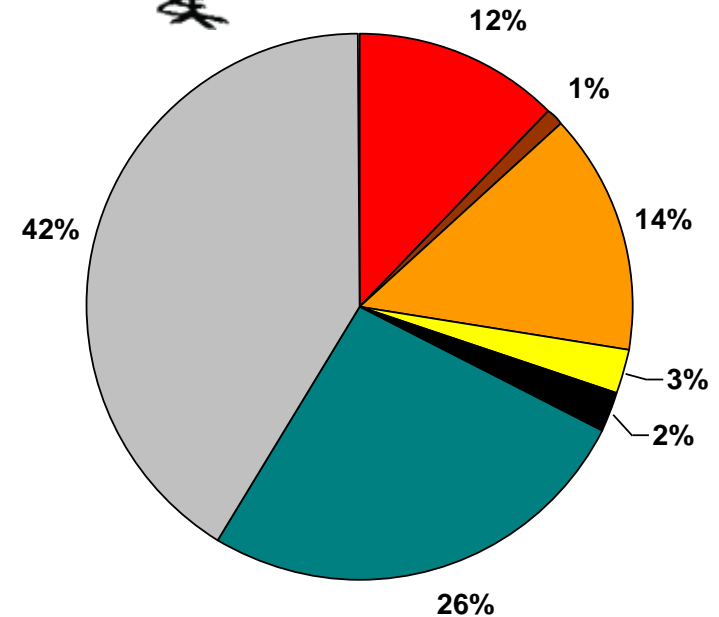
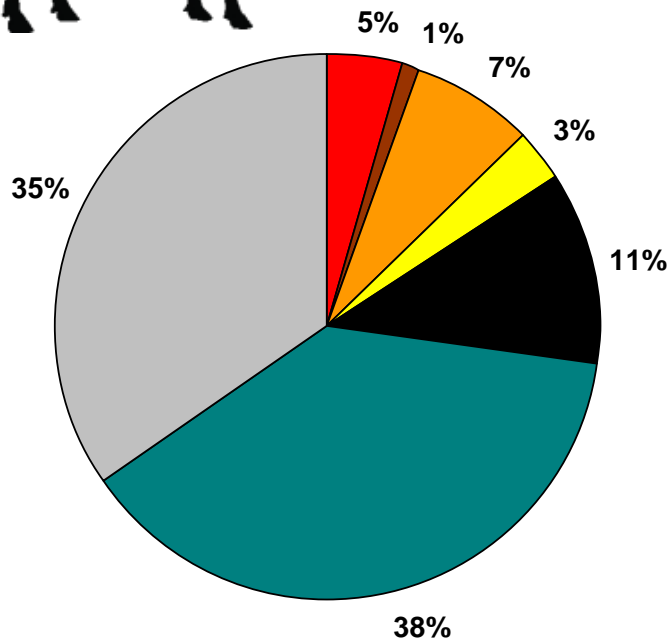


7.616 BREEDS - 690 ARE NOW EXTINCT

Source: FAO



RISK LEVEL SITUATION- INTERNATIONAL SCENE

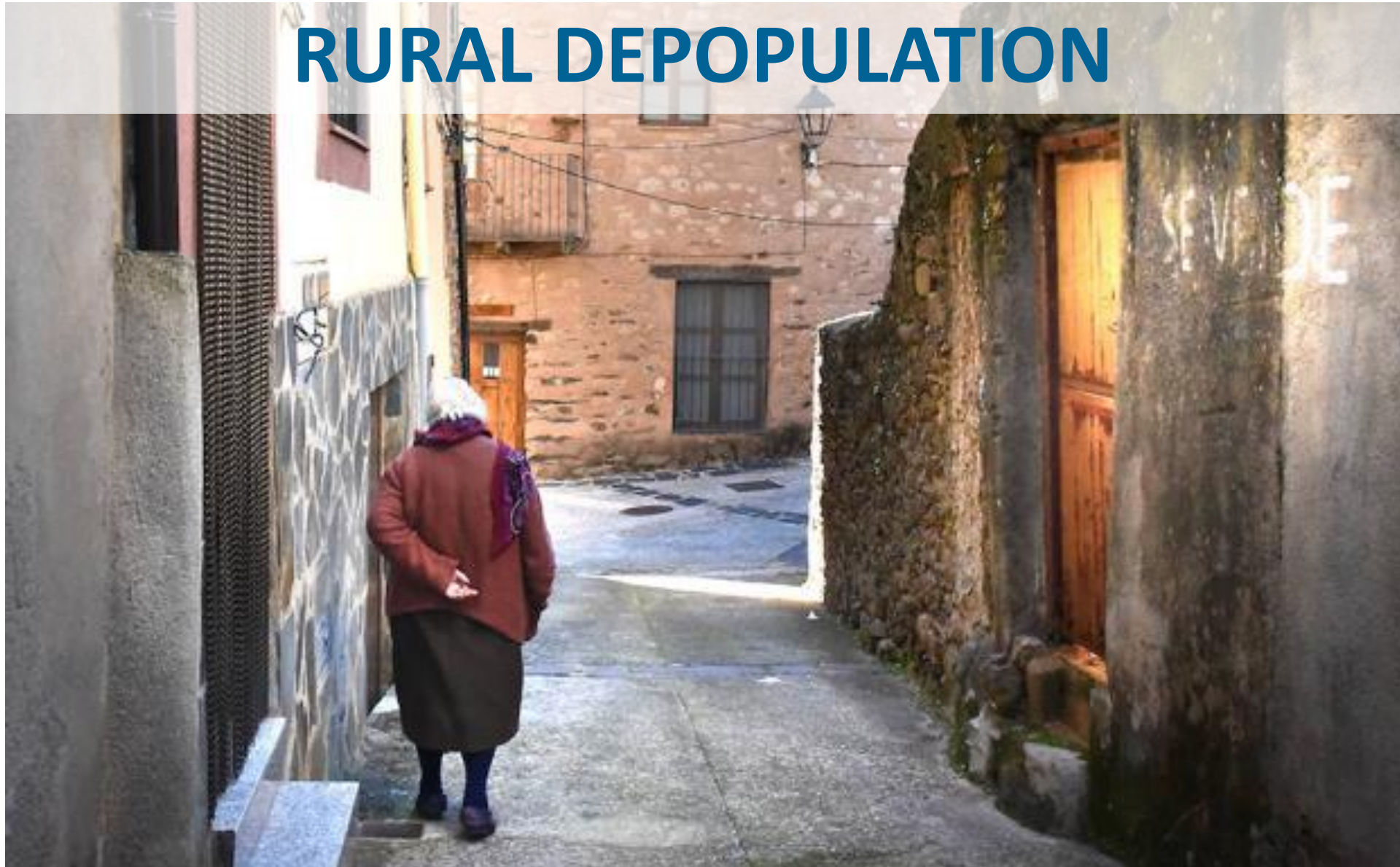


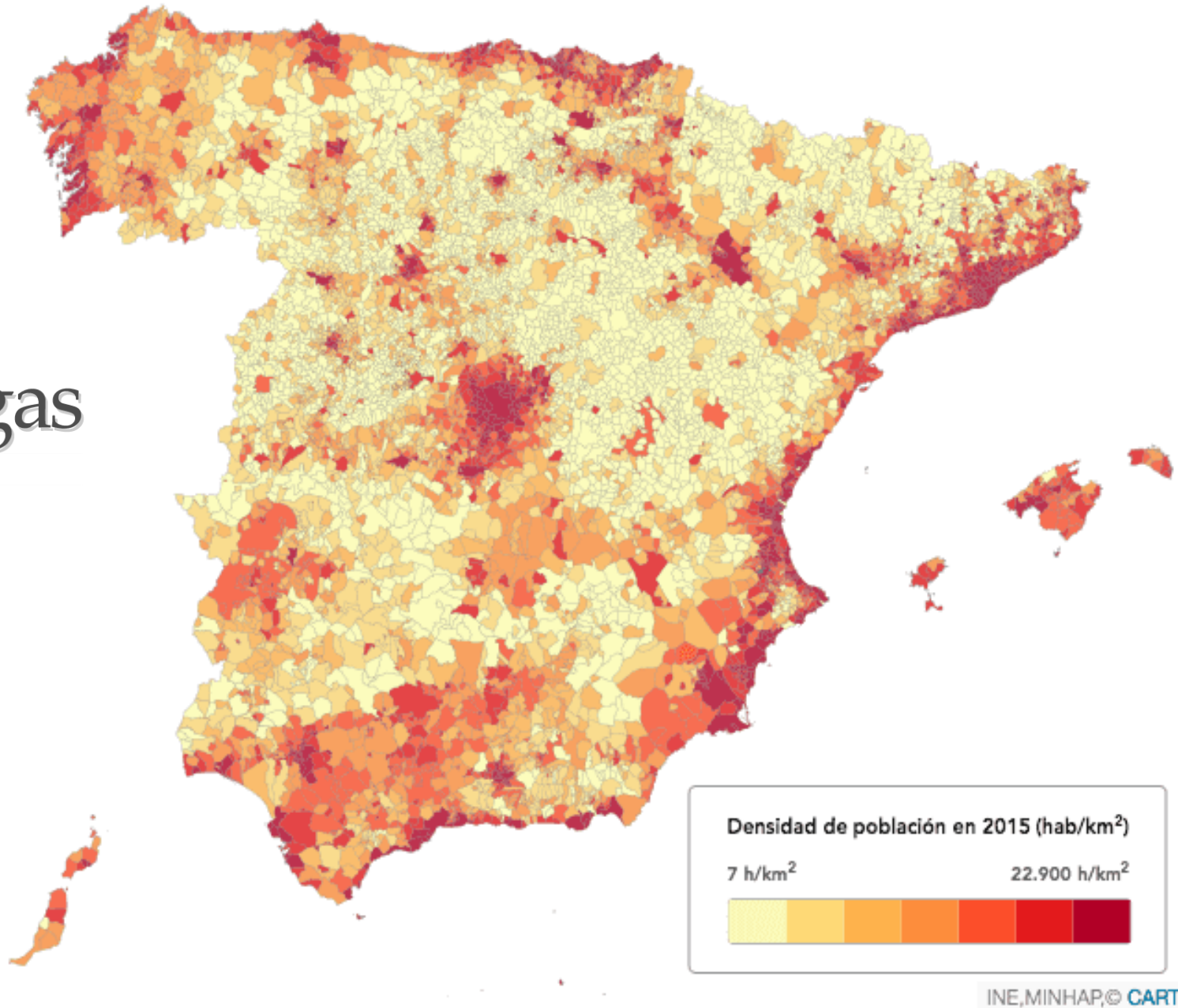
Source: FAO

20% AT RISK
30% UNKNOWN

Challenge 5

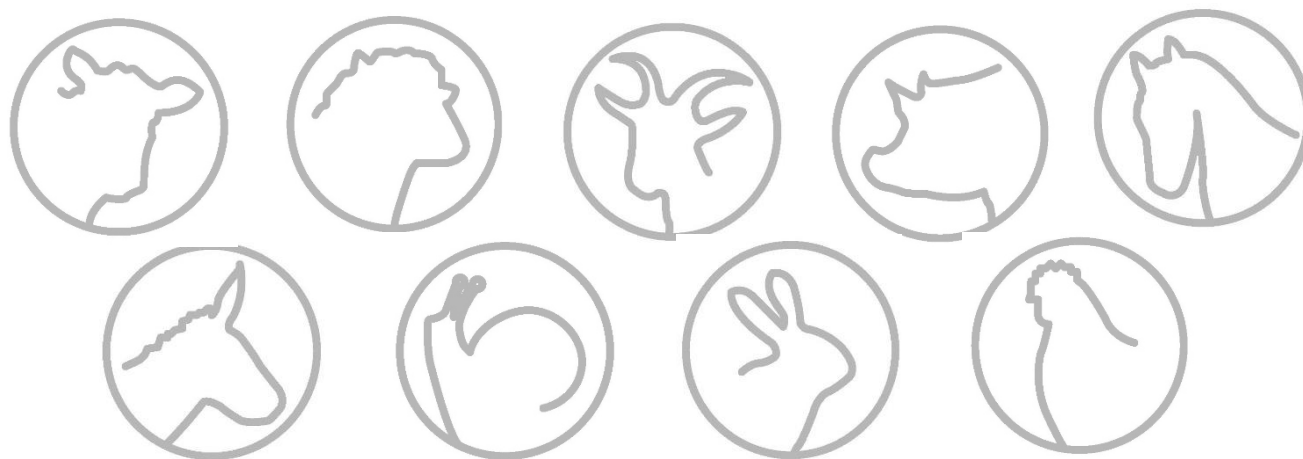
RURAL DEPOPULATION





2. Local Livestock Breeds are presented as a tool up the challenges of 21st Century

2



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2. Local Breeds as a tool up the challenges of 21st Century

SOLUTION

**They produce the food that the human being needs
in a sustainable way, in balance
with the environment**



2. Local Breeds as a tool up the challenges of 21st Century

Why and how?

Local breeds take advantage of natural resources of low nutritional value and transform them into high quality food for the human beings




2. Local Breeds as a tool up the challenges of 21st Century



Why and how?

Local Breeds take advantage of natural resources useless for improved livestock breeds, having access to difficult areas and generating quality and rich food where other breeds could not live.

2. Local Breeds as a tool up the challenges of 21st Century



**They have a special adaptation
to adverse climatic conditions, and resistance
to endemic diseases and high parasitic loads**

2. Local Breeds as a tool up the challenges of 21st Century



Many local breeds, despite the difficult environment in which they are raised, offer high yield productions

2. Local Breeds as a tool up the challenges of 21st Century

Due to their natural raising, they produce natural and high quality products



2. Local Breeds as a tool up the challenges of 21st Century



SOLUTION

**Local Livestock Breeds produce food more efficiently
and in a less polluting way**



2. Local Breeds as a tool up the challenges of 21st Century

Why are they a solution to reduce greenhouse gases and climate change?



Because they are raised under extensive production systems, which is sustainable for the environment

Because less infrastructure and facilities are used in their breeding, which make us consume less energy

2. Local Breeds as a tool up the challenges of 21st Century

Why are they a solution to reduce greenhouse gases and climate change?



**Because traditional practices such as pastoralism
and transhumance are used**

**Because the use of modern means of transport
and associated emissions are lower**

2. Local Breeds as a tool up the challenges of 21st Century

Why are they a solution to reduce greenhouse gases and climate change?

Because local breeds provide ecosystem services

- Fire-fighting
- Protection against erosion
- Natural fertilization



2. Local Breeds as a tool up the challenges of 21st Century



SOLUTION

Because they produce less water footprint



2. Local Breeds as a tool up the challenges of 21st Century

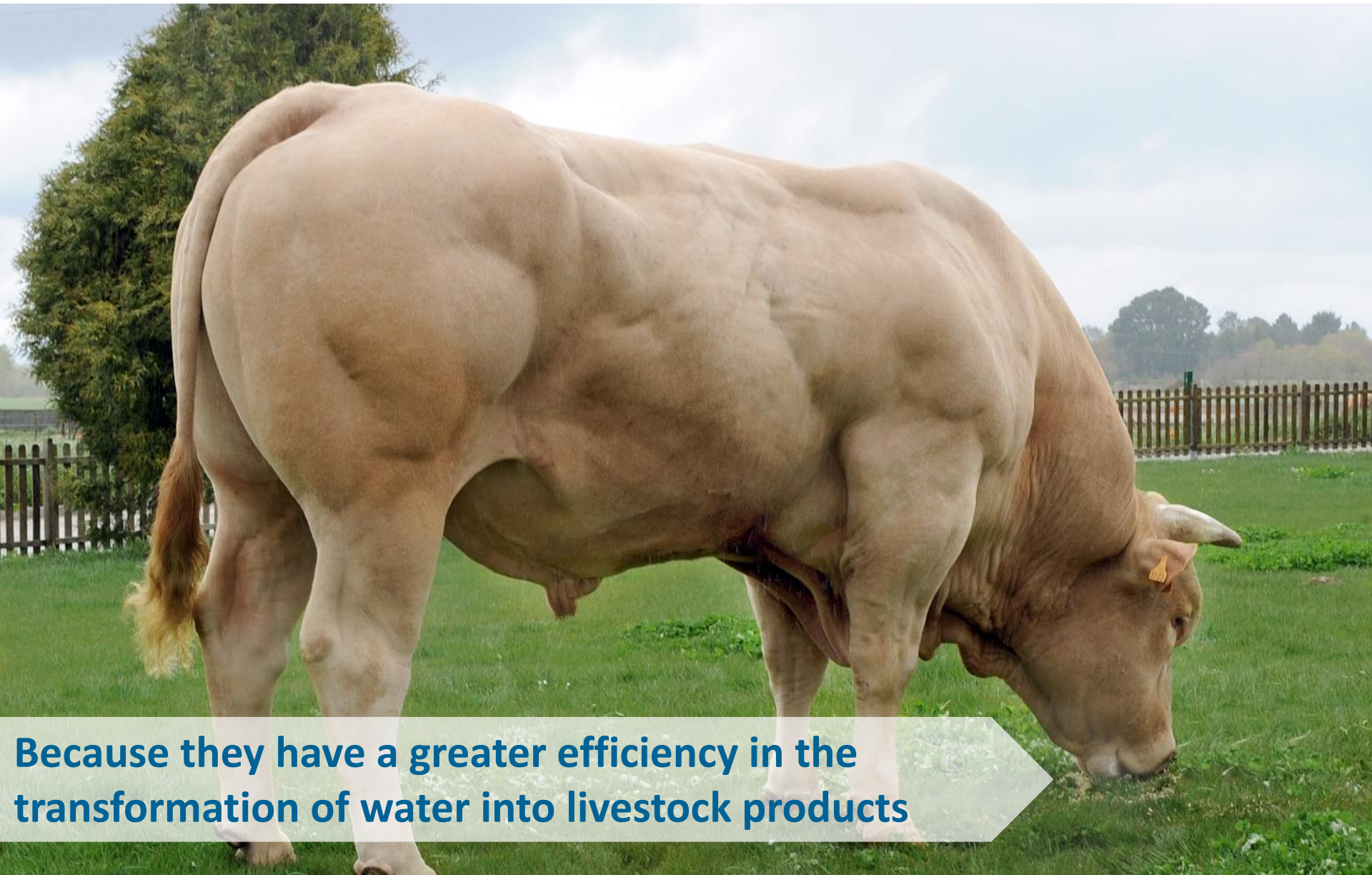
Why are they a solution to the lack of water?



**Because they take advantage of the
naturally available resources**

2. Local Breeds as a tool up the challenges of 21st Century

Why are they a solution to the lack of water?



Because they have a greater efficiency in the transformation of water into livestock products

2. Local Breeds as a tool up the challenges of 21st Century



SOLUTION

Conservation and uses of more livestock genes



2. Local Breeds as a tool up the challenges of 21st Century

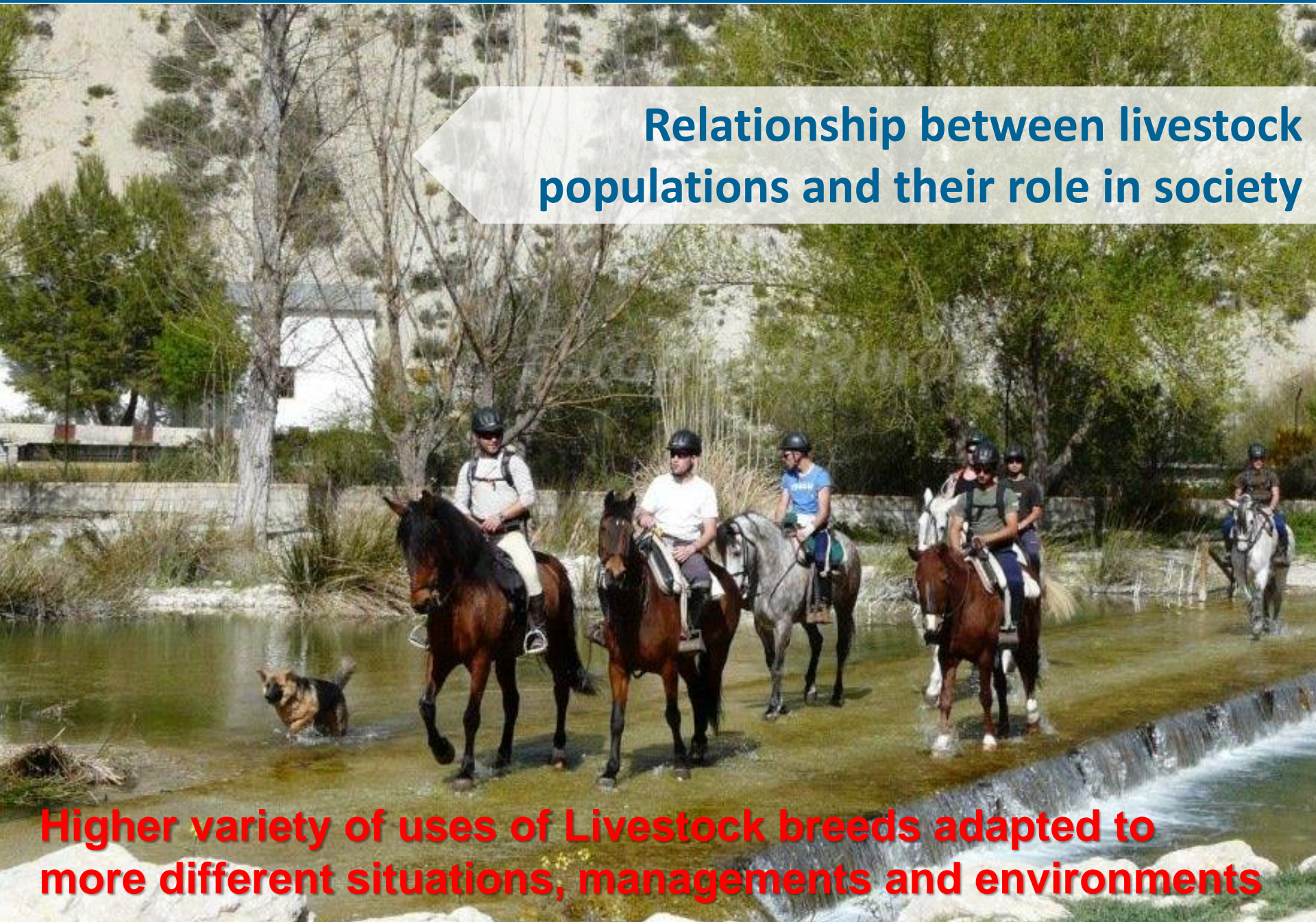


Diversification of livestock uses

2. Local Breeds as a tool up the challenges of 21st Century

Relationship between livestock populations and their role in society

Higher variety of uses of Livestock breeds adapted to more different situations, managements and environments



2. Local Breeds as a tool up the challenges of 21st Century



Huge variety of high quality products from of a high number local breeds

2. Local Breeds as a tool up the challenges of 21st Century



SOLUTION

Creation of wealth in Rural Environment



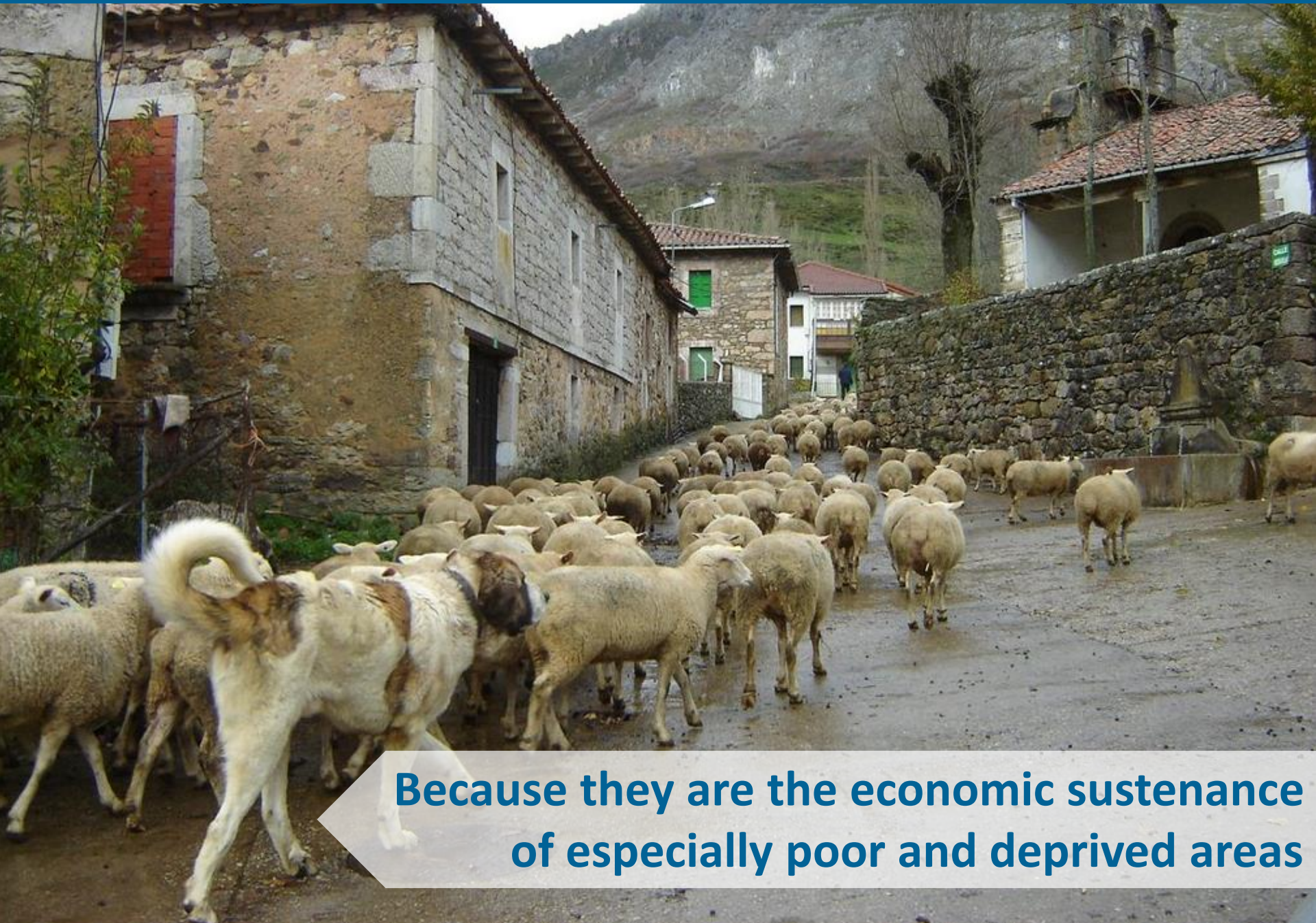
2. Local Breeds as a tool up the challenges of 21st Century

Because they are population fixers in rural areas

- Recovery of traditional uses of fields.
- Promotion of rural employment.

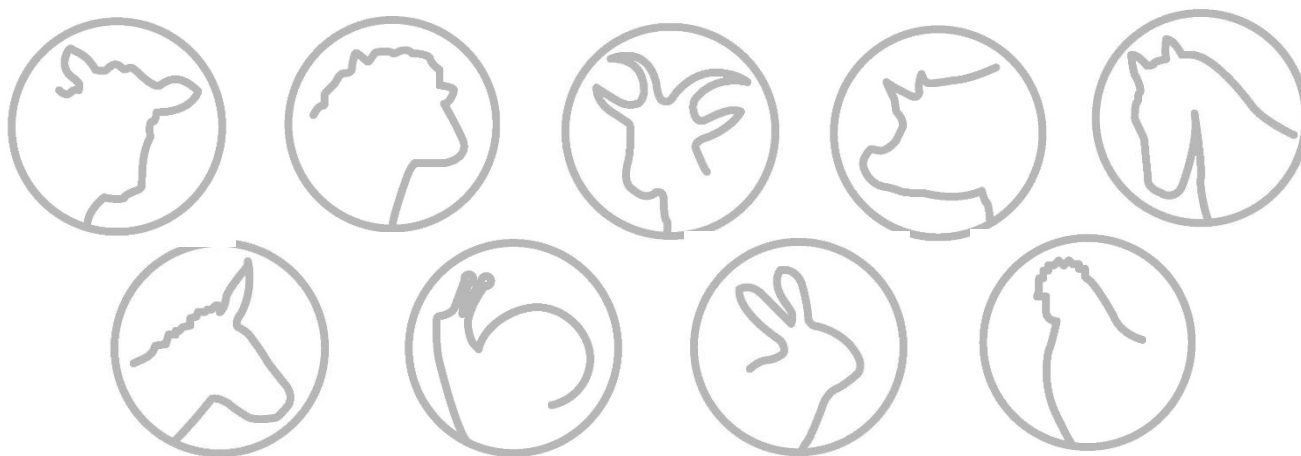


2. Local Breeds as a tool up the challenges of 21st Century



**Because they are the economic sustenance
of especially poor and deprived areas**

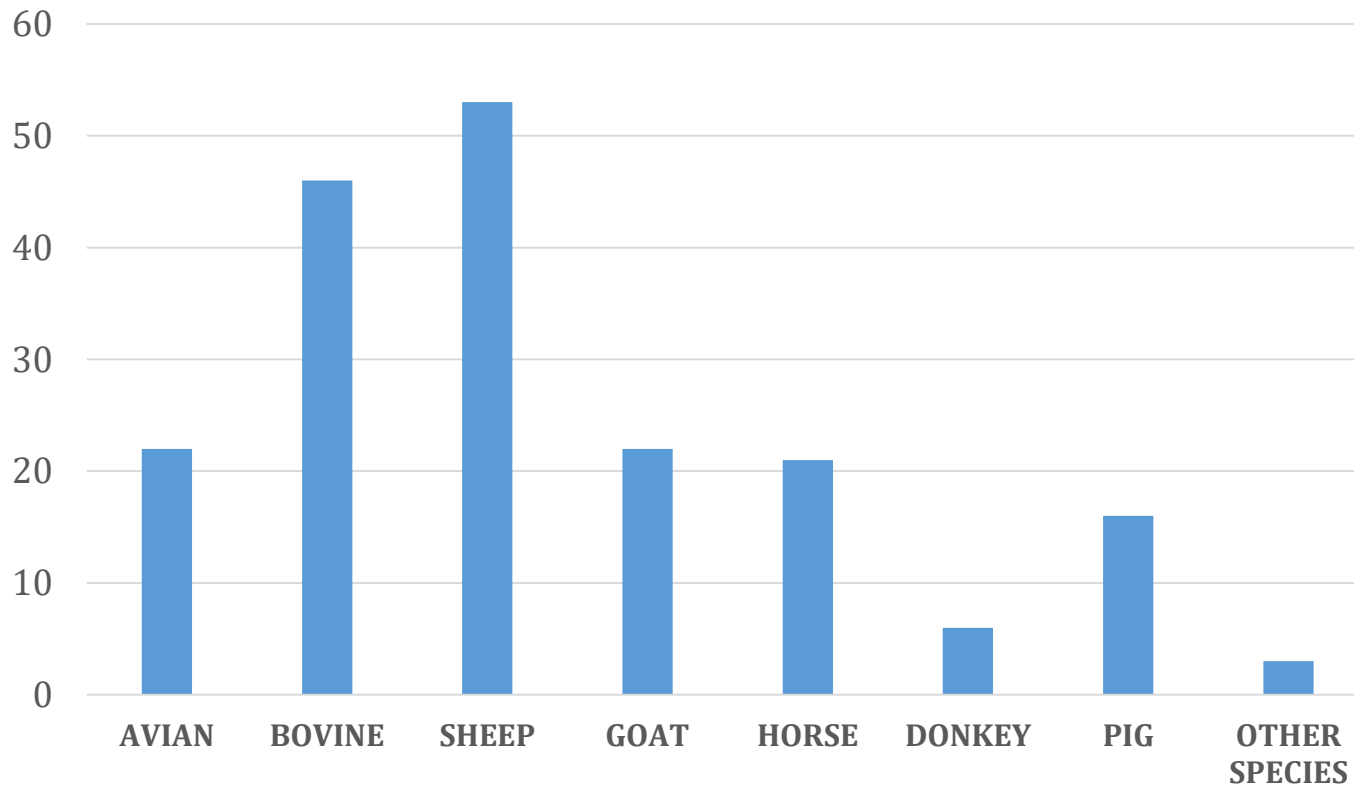
3. Challenges for Local breeds in Spain



Royal Decree 2129/2008 about Zootechnics

In Spain, there are 189 livestock breeds officially recognized by the Ministry of Agriculture (MAPA) or by the Departments of Agriculture of the different regions in which Spain is divided.

All of them are listed in the Official Catalogue of Spanish Livestock Breeds



SPANISH LIVESTOCK BREEDS

This classification is based on the existence of different types of breeds, according to their origins, census and so on:

• AUTOCHTHONOUS BREEDS

• BREEDS INTEGRATED INTO SPAIN

• EUROPEAN BREEDS

• FROM OTHER COUNTRIES

• SPANISH SYNTHETIC BREEDS

• OTHER REGISTERED EQUIDAE

• PROMOTED

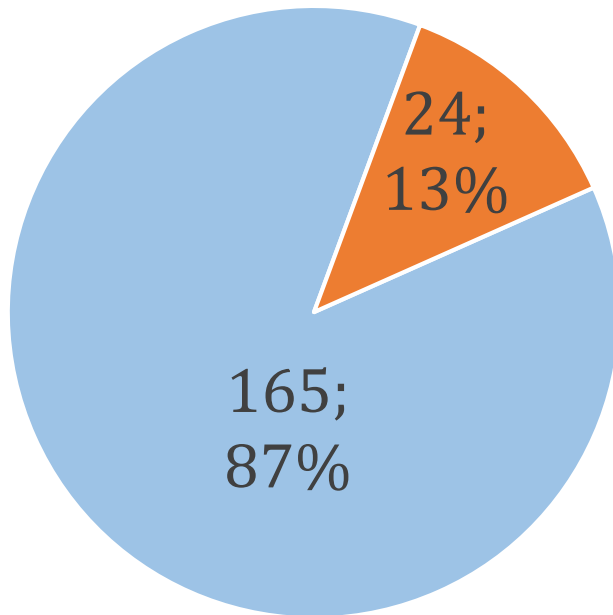
• IN DANGER OF EXTINCTION



189 LIVESTOCK BREEDS OFFICIALLY RECOGNIZED IN SPAIN

Source: Ministry of Agriculture

LOCAL BREEDS vs EXOTIC BREEDS

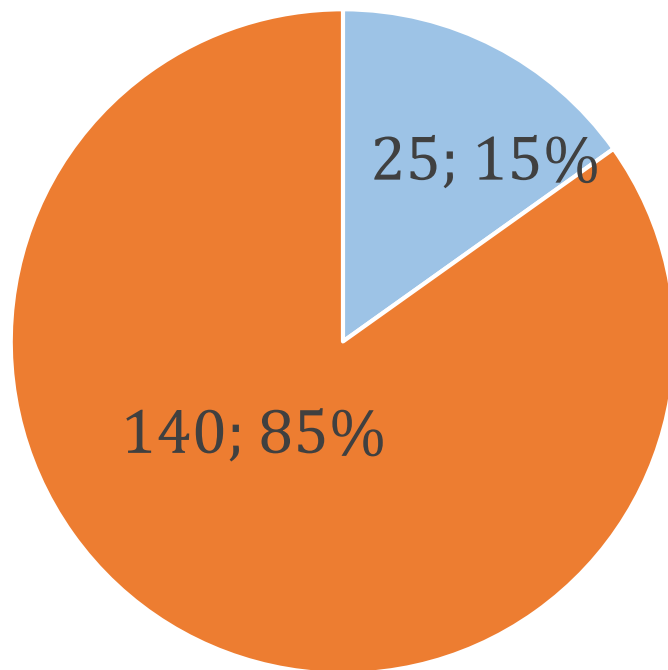


■ LOCAL BREEDS ■ EXOTIC BREEDS



MAIN PROBLEM

LOCAL BREEDS



- PROMOTED LOCAL BREEDS
- LOCAL BREEDS IN DANGER OF EXTINTION



EXTINCT BREEDS IN SPAIN



Chato Vitoriano Pig Breed



Manteguera Leonesa Cattle Breed



Jurdana Goat Breed

MAIN CHALLENGES



- **Big competition with foreign and/or highly improved breeds**, due to their higher yield productions.
- In most of the cases, **they don't have not enough resources and infrastructure** to develop a huge breeding program or a successful conservation program.
- **A big part of the Breeders' Associations which work with these breeds were established not many years or decades ago**, therefore they develop relatively young conservation and breeding program.

MAIN CHALLENGES



- **In many cases, there is not enough census** to achieve a successful breeding program in a short period of time that will pay off soon.
- **Although there are subsidies from the Public Administration for these kinds of breeds**, they are not enough to prevent many of them from continuing to reduce their censuses.
- **They are well adapted only to the areas where they were developed for centuries.**

MAIN CHALLENGES



- Not in all regions of Spain they receive the same attention and support.
- Lack of young people wanting to work in the future in this livestock sector.

SUCCESSFUL CASE



Florida Goat Breed

Measures of protection

1. **Bigger support for these breeds and their breeders** because of their contribution to the conservation of biodiversity, their sustainable production, etc., in order to develop more successful breeding and conservation programs.
2. **The best training for their breeders from their Breeders' Associations, Universities, Research Centers, Public Bodies, etc**
3. **To carry out activities, campaigns and studies to publicize and promote** this type of breeds and their natural and high quality products.



Measures to protect Native Breeds

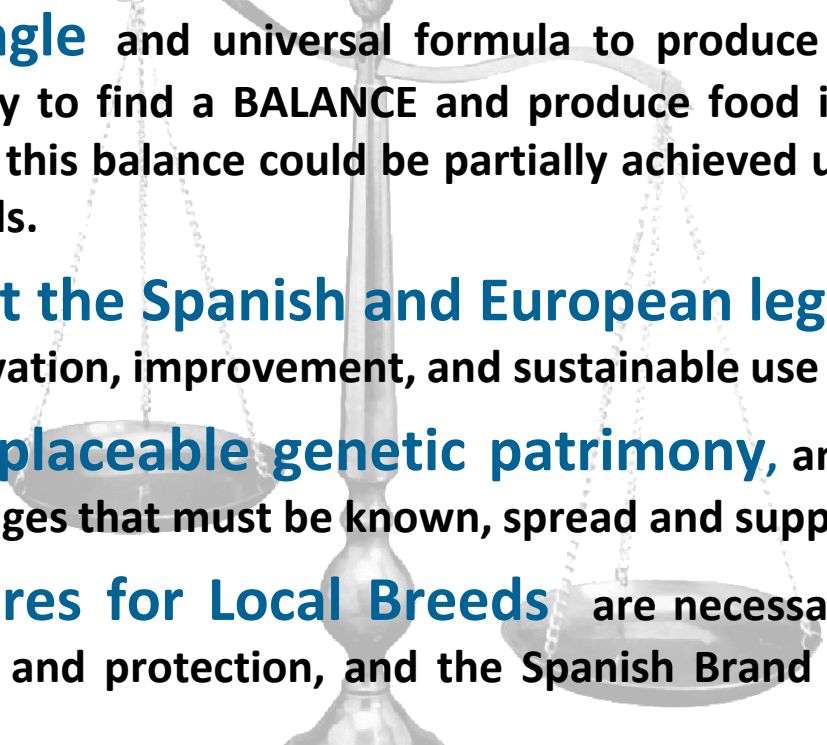
4. To develop studies that highlight and value the contribution of local breeds to society, the improvement of the quality of life in rural environment, to the sustainable production, etc.
5. To increase the competitiveness in production, transformation and marketing of the products of these breeds (Development of short marketing channels and support for the differentiation of their products –Special brands).



**LOGOTIPO
RAZA
AUTÓCTONA
100%**



CONCLUSIONS

- 
- **There is no a single** and universal formula to produce in a sustainable way. However, it is necessary to find a **BALANCE** and produce food in an **INTELLIGENT** and **SUSTAINABLE** way, and this balance could be partially achieved using, more and better, the local livestock breeds.
 - **It is necessary that the Spanish and European legislations** protect in a specific way the conservation, improvement, and sustainable use of Local Breeds.
 - They represent an **irreplaceable genetic patrimony**, and their breeding has a high number of advantages that must be known, spread and supported.
 - **Protection measures for Local Breeds** are necessary, not only economic, but all kind of support and protection, and the Spanish Brand Local Breed 100% is a good example of it.



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**Merci beaucoup pour votre
attention!!**



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