

The management of AnGR in Greece

Ch. Ligda, E. Danou, A. Georgoudis

National Agricultural Research Foundation
Ministry of Rural Development and Food
School of Agriculture, Aristotle University of Thessaloniki



16th ERFPA Annual Workshop, 22 August 2010, Crete

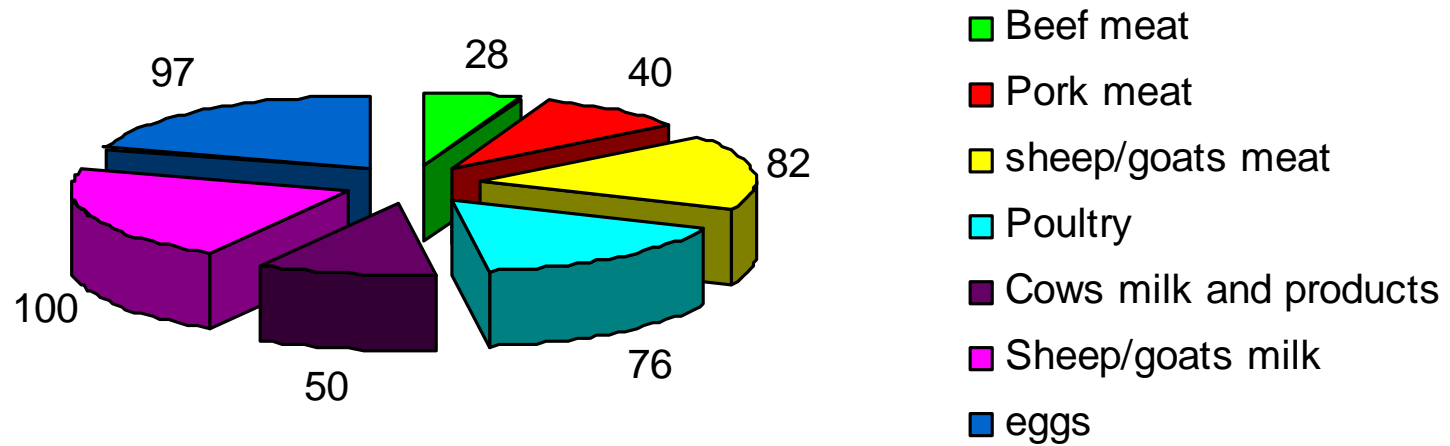




- ✓ Land area: 13.2 million hectares
- ✓ Mountainous
average elevation of 500 m

- ✓ Active population involved in agriculture 15 %
- ✓ Agriculture contributes to 6.7 % of the Gross National Product

Self-sufficiency of the country in animal origin products



Animal Genetic Resources

- Rich biodiversity contributing to a large variety of quality products
- Answer to the new demands of society
 - Sustainability, environment, quality, animal welfare

Official recognised breeds of farm animals

Species	Breeds
Cattle (4)	Brachykeratiki, Katerinis, Sykia, Holstein
Buffalo (1)	Greek Buffalo
Sheep (20)	Karagouniki, Lesvos, Sfakia, Karystou, Frisarta, Orino, Chios, Serres, Kefallenias, Kalarritiko, Peliou, Skopelou, Thrakis, Sarakatsaniko, Katsika, Argos, Kymi, Zakynthos, Florina, Agrinio
Goats (2)	Local, Skopelos
Horses (5)	Skyros, Pinias, Messaras, Thessaly, Pindos
Pigs (1)	Local

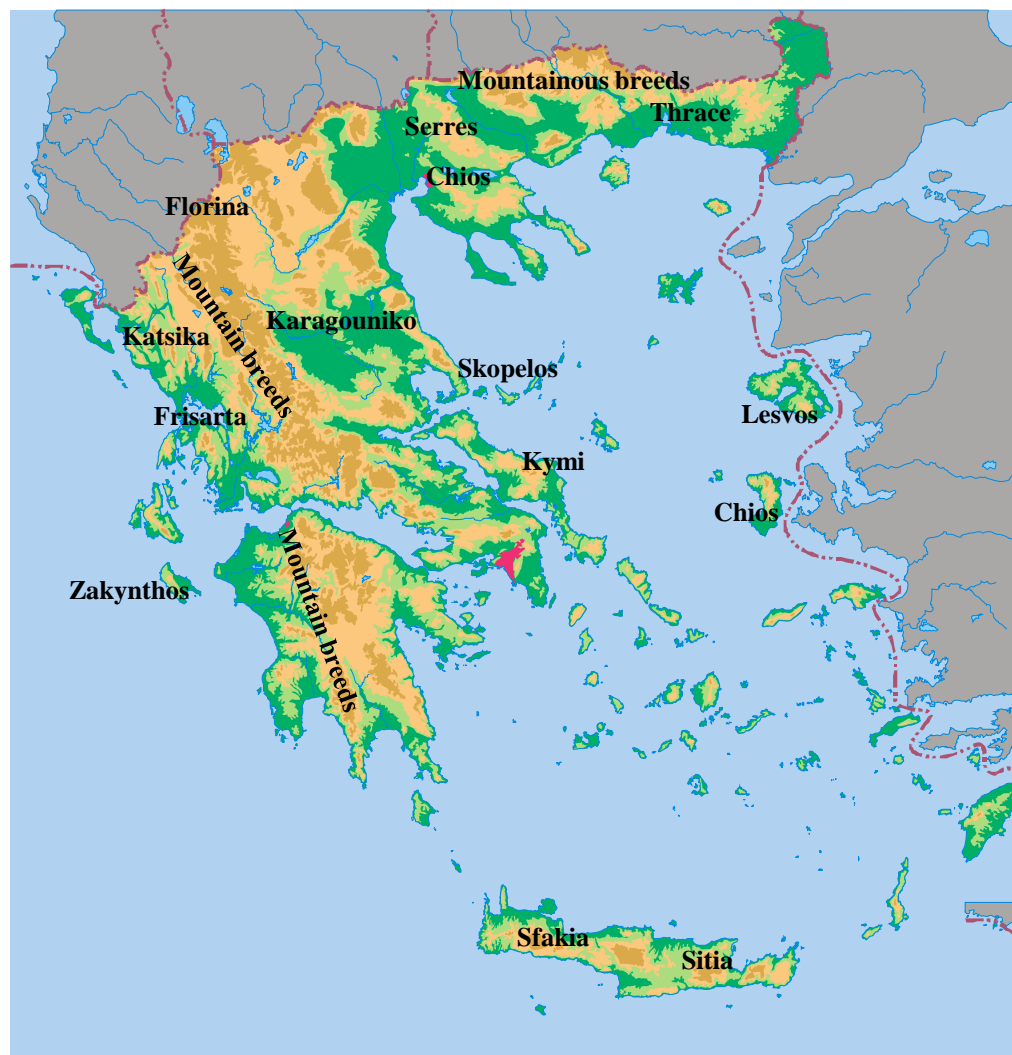
Sheep and goat breeding

- **Sheep and goat breeding**, the most widespread agricultural sectors of Greece
- According to their share in the **animal production (43%)** and in the **total agricultural production (13%)**
- **78% of sheep and 90%** of goats are raised under low input production system in the **mountainous and marginal regions** of the country
- Sheep population presents **high variation in morphology and production characteristics** and shows excellent **adaptability to the local environment**



Sheep genetic resources

- Geographical isolation, genetic drift, selection and crossbreeding, and transhumance of population, contributed to the current picture of sheep breeds in Greece
- Presence of high percentage of crossbred animals, resulting from uncontrolled crossbreeding within the local population













August 2010, Crete



Zakynthos



Serres



















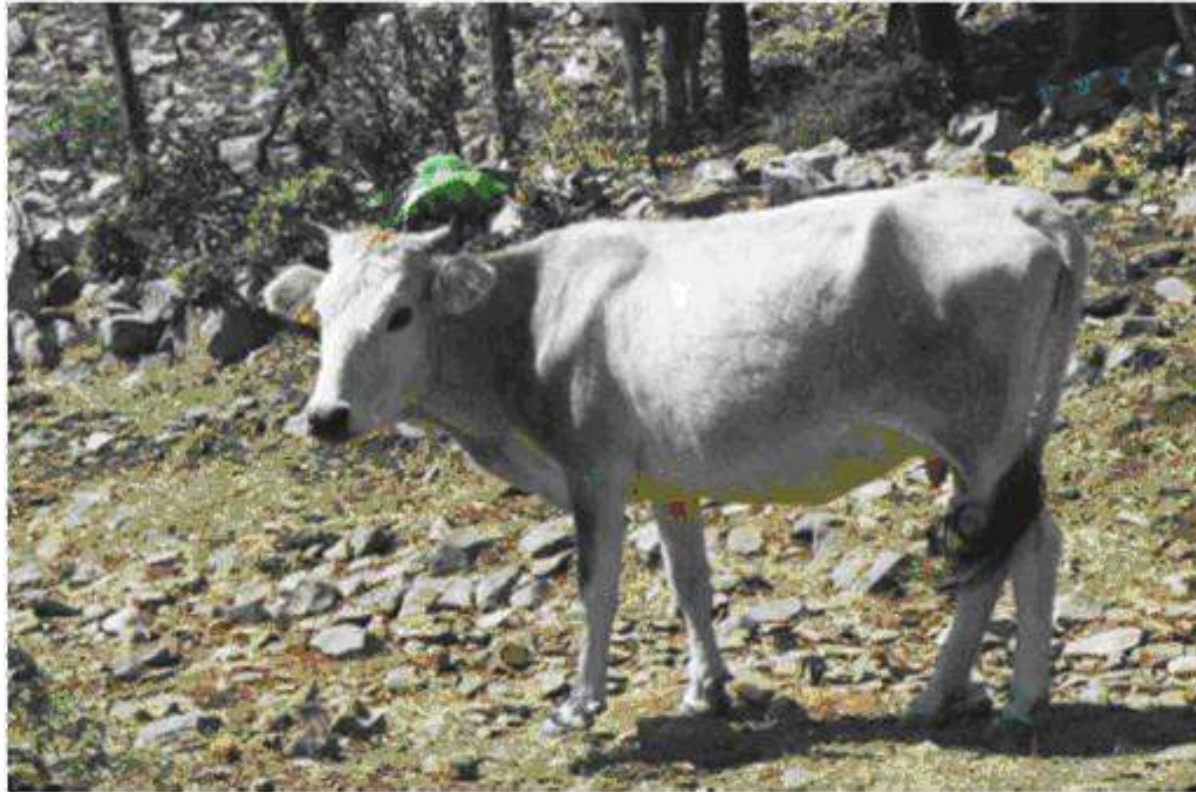
Cattle genetic resources

- Cattle in Greece were genetically stratified as follows:
 - indigenous breeds (used mainly for meat production)
 - crossbred animals (meat and double purpose)
 - purebreds adapted to local conditions (dairy or double purpose breeds).











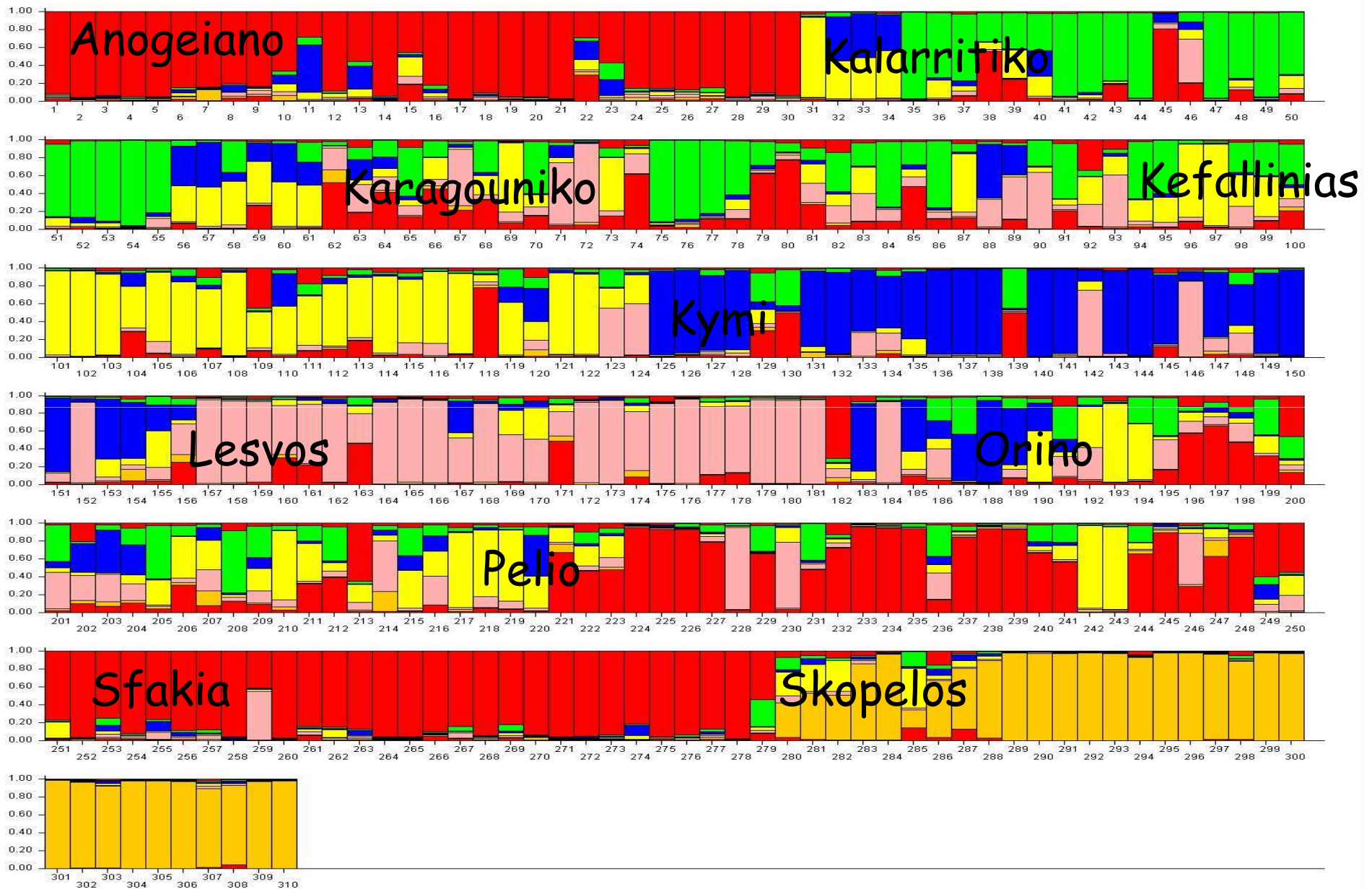




Characterisation, Inventory and Monitoring of Trends and Associated Risks

- Establish the national node of the EFABIS database (www.efabis-greece.gr)
- Review and update the Efabis database
- Research projects and activities
 - Characterisation of AnGR
 - Livestock biodiversity Indicators

Results from Structure analysis (10 sheep breeds)



- Highest percentage of genetic diversity is the within breeds (97%) diversity
- There was a general loss of heterozygosity in all breeds (except in Lesvos and Kefallenias).
- The results of the different analyses and tests supported each other, and were in accordance to historical and geographical findings of the populations

Further priorities

- To establish a permanent monitoring and updating system
- To develop national endangerment and risk status classification systems



16th ERFPA Annual Workshop, 22 August 2010, Crete



Sustainable Use and Development

- Meetings aiming to support the farmers to develop their work on linking their products with the breeds.
- Development of schemes to support breeders of small population regarding the genetic management of their populations.

Pastomed

Tradition et modernité du pastoralisme : reconnaissance de ses multiples rôles dans le développement durable des territoires méditerranéens



Further priorities

- Breeding objectives
 - Production and quality
 - Traits related with the low production cost
 - Link with the region – (adding value)
 - Maintain the environmental and cultural role of the production systems
 - Genetic diversity

- *Conservation*



National Strategic Plan
for Rural Development 2007-2013
Measure 2.1.4: Agro environmental measures

- Action 3.1: Conservation of autochthonous farm animal breeds at risk
 - Article 36 and 39 (1698/2005) / Article 27 (5.3.2.1.4) (1974/2006)
- Action 3.4 Conservation of genetic resources
 - Article 39 (par. 5) (1698/2005) /Article 28 (5.3.2.1.4) (1974/2006)

Level of support

Species	Breeds	Euros / LU
Cattle	2	335
Buffaloes	1	335
Sheep	10	221
Goats	1	194
Pigs	1	219
Horses	5	350



- Ex situ conservation
 - Semen collection
 - Sheep breeds
 - Heritage sheep project
 - other research activities
 - Cattle breeds

Further priorities

- Establish the national Gene Bank for AnGR
 - Define the criteria for the creation and management of the gene bank

- *Policies, Institutions and Capacity Building*

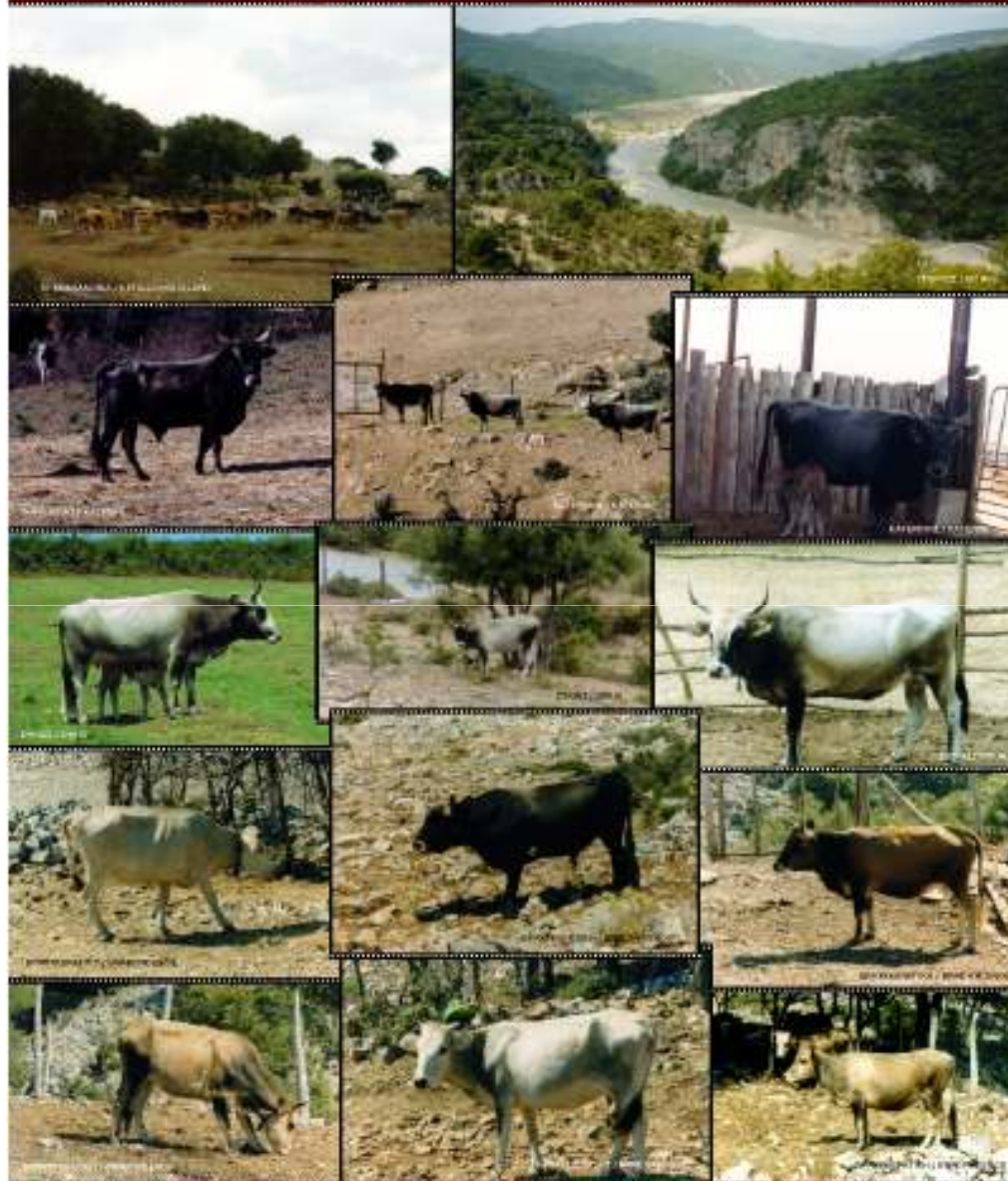
- Translation of the GPA in the Greek language. In collaboration with the National Focal Point of Cyprus.
 - The document will be published before the end of September.

Further priorities

- Develop the National Plan for AnGR
- Enhance the role of the Breeders Associations
- Education, training, public awareness

- Working Group on Animal Breeding and Genetic Resources.
 - Aims to formulate proposals on the organisation of the animal breeding sector at national level, develop the national plan for the AnGR.

ΟΙ ΕΛΛΗΝΙΚΕΣ ΑΥΤΟΧΘΟΝΕΣ ΦΥΛΕΣ ΒΟΕΙΔΩΝ
THE GREEK AUTOCHTHONOUS CATTLE BREEDS



1

Α.Ε.Π. - ΤΕΜΑ ΕΠΙΧΕΙΡΗΣΙΑΚΗΣ ΓΕΩΡΓΙΑΣ ΚΑΙ ΚΤΗΝΙΑΣ
 ΕΠΙΧΕΙΡΗΣΙΑΚΗ ΓΕΩΡΓΙΑ ΚΑΙ ΚΤΗΝΙΑΣ

Α.Ε.Π. - ΣΧΟΛΗ ΓΕΩΡΓΙΑΣ
 ΚΕΝΤΡΟ ΓΕΩΡΓΙΑΣ ΚΑΙ ΚΤΗΝΙΑΣ
 ΓΕΩΡΓΙΑ ΚΑΙ ΚΤΗΝΙΑΣ

ΕΣΤΙΑΚΟ ΣΗΜΕΙΟ
 ΠΑΤΗΡΟΤΑΔΑ ΚΑΙ ΒΑΘΥΡΗΣ ΤΟΥ ΓΕΝΕΤΙΚΟΥ ΠΛΗΘΟΥΣ ΑΓΡΟΤΙΚΩΝ ΖΩΩΝ

GREEK FOCAL POINT
 FOR THE PRESERVATION AND CONSERVATION OF FARM ANIMAL GENETIC RESOURCES

ΠΡΩΤΟΤΥΠΟ ΕΣΤΙΑΚΟ ΣΗΜΕΙΟ ΓΕΩΡΓΙΑΣ ΚΑΙ ΚΤΗΝΙΑΣ

ΜΟΝΙΜΟ ΕΣΤΙΑΚΟ ΣΗΜΕΙΟ ΓΕΩΡΓΙΑΣ ΚΑΙ ΚΤΗΝΙΑΣ

