ECO-TransH

CONFERENCE PROCEEDINGS

5 NOVEMBER 2024 – LARISSA, GREECE



Erasmus+
Enrichit les vies, ouvre les esprits.

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RÉPUBLIQUE FRANÇAISE
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ECO-TransH

Agroecosystem of the transhumant herds

Γαλλία Ελλάδα Ιταλία Μαρόκο Μογγολία Ρουμανία

Report of the visit in Greece

Greece was the coordinator and responsible for the proper execution of WP2: Generational renewal. ELGO/DIMITRA distributed the tasks between the different partners, ensured follow-up compliance with deadlines, budget allocation (in accordance with what has been established upstream), the collection of supporting documents, reporting and contributed to the intermediate and final assessment. ELGO/DIMITRA organized working meetings by video, either collectively or individually.



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Το αγροοικοσύστημα των μετακινούμενων κοπαδιών

Γαλλία Ελλάδα Ιταλία Μαρόκο Μογγολία Ρουμανία

WP2
Successful transhumance
Η επιτυχία της μετακινούμενης κτηνοτροφίας

We are happy to invite you to the information meeting organized by the Erasmus+ project

ECO-TransH "Agroecosystem of the transhumant herds". The meeting will take place on **Tuesday November 5th 2024** at 11:00 (EEST) in the Averof School of Agriculture in Larissa, Greece.

The meeting will aim to discuss formal issues such as:

- Sharing the practice of transhumance between countries/partners
- Generational renewal in agriculture and rural areas

You will meet Eco-TransH project participants who will talk about their experiences and you will learn about transhumance in practice in the different countries that participate to the project. At the end of the meeting, there will be time for questions and consultations.

We are positive that the meeting will provide you not only with concrete information but also with inspiration to promote this unique practice that is still alive, sustainable, and with a great environmental importance.

You are warmly invited!



The Averof Agricultural School of Larisa hosted 45 participants from the 6 countries/partners and more than 30 students attending the two faculties of the hosting school. The school had catering capacity for large numbers of participants and a big avenue for the meeting. 4th and 8th were arrival/departure days.







Tuesday, November 5th
Opening of the meeting with more than 5 presentations from inviting speakers.
Speakers:

- Dr.Despina Karatosidi: ELGO-DIMITRA and its institutes in the Eco-TransH project (RIAS, AGRERI and Averof School of Agriculture). ELGO-DIMITRA is the national body responsible for the agricultural research and technology in Greece. The main object of ELGO-DIMITRA is the development and support of actions aimed at the modernization and development of the country's agricultural sector, the improvement of production processes, the strengthening of competitiveness, the certification of agricultural products & food quality, the establishment and certification of agricultural good practices and controls in the production-distribution chain of milk and meat in the country. In 2021, ELGO-DIMITRA obtained Erasmus+ accreditation for the next six years in the field of Vocational Education and Training. This distinction is the result of a competitive process, carried out by the State Scholarship Foundation among numerous applications and is the first time that the public institution for the education and training of the Primary Sector has emerged as an Erasmus+ accredited hub. The Organization will have simplified access to funding opportunities under Key Action 1 of the new program (2021-2027) in the field of School Education until 31 December 2027.
- Evangelia Sioki: Welcome and presentation of the Averof School of Agriculture. Averof School of Agriculture is housed and operates in the farm of the "Averof Agricultural School of Larisa" with over a hundred

years of history, which includes, in a fenced area of approximately 40 acres, the complex of 43 buildings of enormous historical importance of the school, an integral part of the economic, historical and cultural life of the place. A School of emblematic character for the city of Larissa, a donation of the National Benefactor G. Averof. From the mid-1980s-90s, two-year vocational schools focused on Agricultural Machinery and Animal Husbandry are operating, upgrading its agricultural professional educational work. Today, there are agricultural machinery and mechanical engineering laboratories operating in the school, as well as stables of cattle, pigs, sheep and poultry, and arable fields for the school's educational needs.

- Fabienne Gilot: Presentation of the Eco-TransH Project, its objectives, milestones and deliverables.
- Dr. Athanasios Ragkos: Transhumance in Greece and PASTINNOVA PRIMA Project. Representing the AGRERI (ELGO's institute), which is the national agency for finding solutions to the economic and social problems of the agri-food sector, through its research activity and the effective dissemination of its findings, to the directly interested parties and the scientific community, Ragkos presented the PASTINNOVA project to the participants. The PastInnova project aims to deliver innovations and sustainable business and organizational models for profitable and resilient pastoral farms and value chains increasing smallholders' potentials for market access and value adding, contributing to revitalizing mountain and marginal areas and fulfilling social expectations. The key objective of PASTINNOVA is to re-enforce the sustainability, profitability and resilience of small pastoral farms, by setting up innovations, business and organizational models (IBM) to valorise their full potential as drivers towards agro-ecological transition in livestock production. PASTINNOVA examines pastoral systems which – despite the multiple challenges they face – are able to provide a broad array of ecosystem services (ES) along with high-quality products (dairy, meat, wool and processed) in a variety of agro-ecological and socio-economic Mediterranean settings. The project proposes a holistic interdisciplinary approach to improve the weak positioning of pastoral smallholders in Value Chains of Pastoral products (VCP), with particular focus on vulnerable groups (e.g. women, young farmers, migrant workers).
- Georgios Ziagkas: The perspective of a young transhumant farmer from Greece. Ziagkas, being a forth generation of transhumants, presented the life of his family in a year. From the inner parts of Ampelonas village in the region of Thessaly to the upper parts of Pindos mountain and its higher point of Smolikas.

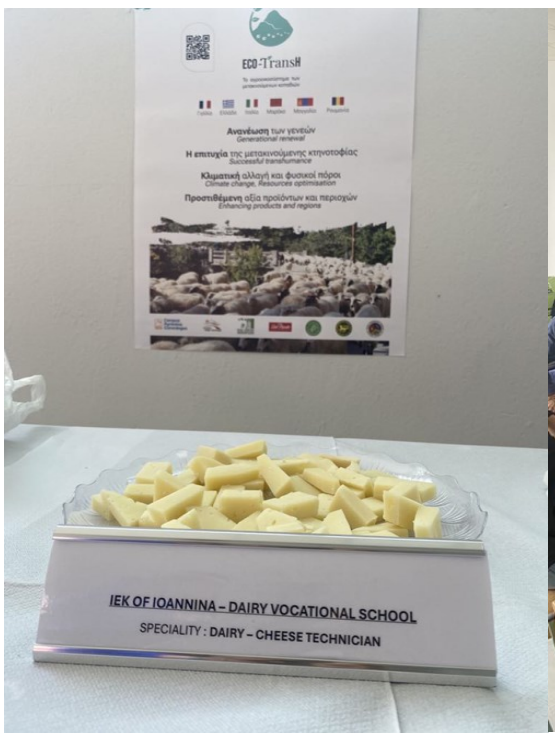
Presentations of all countries/partners from students.
First presentation of the mini-clip.
Lunch on the meeting avenue and visit to the facilities of the School.

Wednesday, 6th November

Visit to the Association of Sarakatsans of Pieria "KATSANTONIS" in Pieria. Discussions with stakeholders about the past and future of transhumance in the area. Main aims of the association are the coordination of the action of the Sarakatsanai Associations throughout Greece, towards the preservation and transmission of their folk culture and tradition, as a continuation of the ancient Greek Culture, the collection of data and information about the origin, lifestyle, customs and traditions of the Sarakatsanai, the study, processing and systematization of these, the promotion of these by every appropriate means, as well as the establishment of spiritual centers of the Sarakatsanai and the defense and promotion of the culture and rights of Hellenism.
Lunch en route. Technical Visit to primary sector initiatives in the region of Thessaly and dinner with transhumants in village of Argiropouli Larissa where transhumants prepared traditional meals for us.

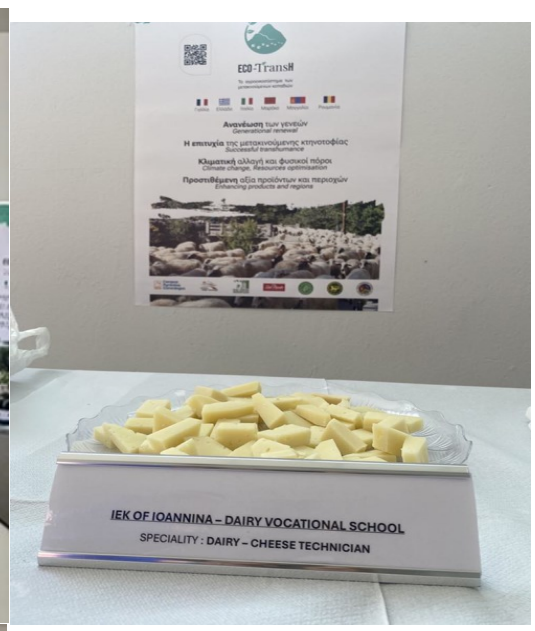
Thursday, 7th November

Consortium meeting (results of the first stage of the project, next steps). Parallel activity: Students worked on the co-development of the Eco-TransH game and visit to Roumania.











The results of this WP are as follows:
• Creation of the mini-clip from young people from each country.
• Intergenerational meeting: young people and professionals in Greece exchanged views on the problems of generational renewal in each country, studied the solutions already in place and imagined new responses to this major challenge.
• Discussions about discovering a farming practice, common to many countries, that is environmentally friendly and economically viable.
• Passing on social values through intergenerational exchanges.
• Enhancing the richness of interculturality.
• Promoting young people from disadvantaged rural areas, who often face social and economic difficulties.
• Positioning transhumance practices as a vehicle for innovation, universal values and regional appeal.
• Development of new collaborations between countries / between partners / between professionals / between young people that can last beyond the project.
• Provide realistic solutions, adapted to each country, to replace retiring transhumant herders, leaving room

for young people.
• Promoting a partnership between EU and non-EU countries to pastoral communities, institutions and scientists.
• Internationalization of knowledge of transhumance and its issues (encouraging certain countries to join the 3rd wave).
• Impetus for social recognition of transhumance.
• Implementation of actions under the safeguard plan.

For ELGO/DIMITRA
Dr. Despoina Karatosidi

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Agroecosystem of the transhumant herds

Γαλλία Ελλάδα Ιταλία Μαρόκο Μογγολία Ρουμανία

Program

WP2
Successful Transhumance

Monday, November 4th

Travel Day

Tuesday, November 5th

10.00 Welcome

10.30 Public presentation of the project

- *Dr.Despina Karatosidi:* ELGO-DIMITRA and its institutes in the Eco-TransH project (RIAS, AGRERI and Averof School of Agriculture)
- *Evangelia Sioki:* Welcome and presentation of the Averof School of Agriculture
- *Fabienne Gilot:* Presentation of the Eco-TransH Project
- *Dr. Athanasios Ragkos:* Transhumance in Greece and PASTINNOVA PRIMA Project
- Georgios Ziagkas: The perspective of a young transhumant farmer from Greece.

Presentations of all countries/partners.

Miniclip premiere

14.00 *Lunch on the meeting venue (Averof School of Agriculture)*

16.00 Visit to the facilities of Averof School of Agriculture guided by teachers and students.

20.30 Dinner

Wednesday, 6th November

10.30 Sharing experiences with the Association of Sarakatsans of Pieria "KATSANTONIS"

14.00 Lunch *en route*

17.00 Technical Visit to primary sector initiatives in the region of Thessaly

20.30 Dinner



Thusday, 7th November

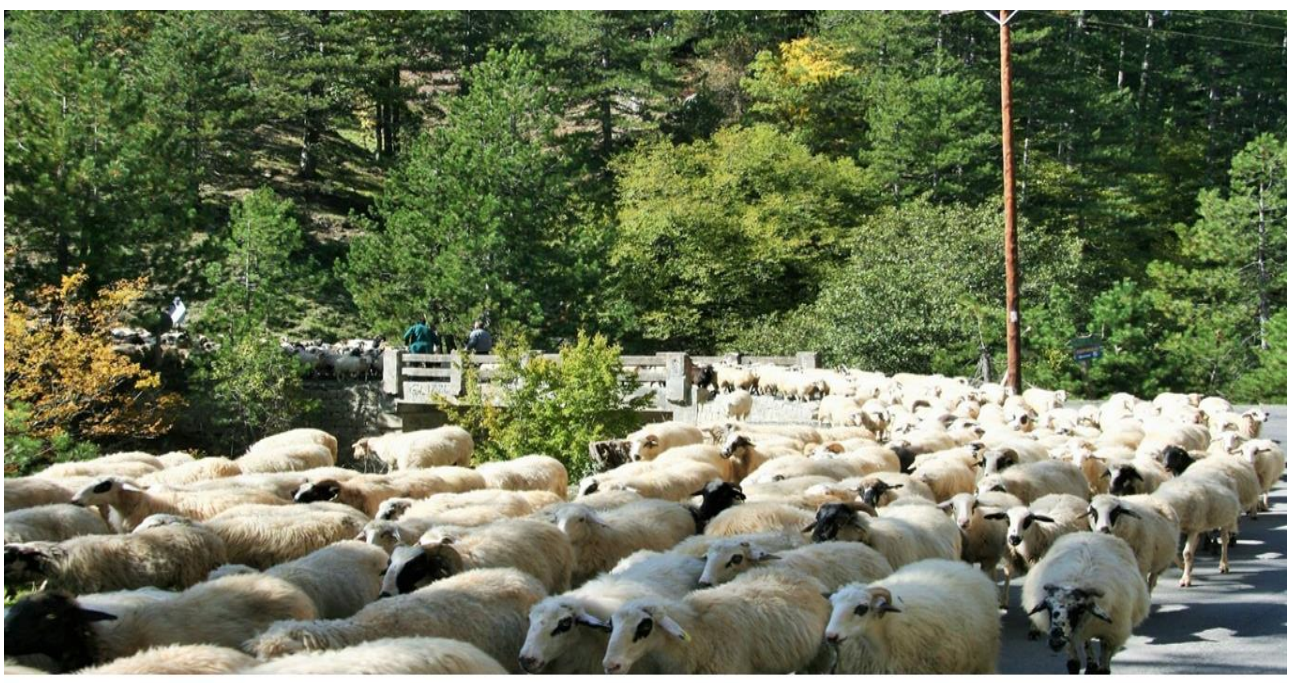
10.00 Consortium meeting (results of the first stage of the project, next steps)
Parallel activity: Students will work on the co-development of the Eco-TransH game and visit to Roumania

14.00 *Lunch on the meeting venue (Averof School of Agriculture)*

16.00 Students visit at Larissa center

Friday, 8th

Travel Day



ERASMUS + project "Agroecosystem of the transhumance herd

Meeting in greece

Tuesday 5th of October 2024

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ACTION CLE 2
COOPERATION BETWEEN ORGANIZATIONS AND INSTITUTIONS
Capacity building in the field of vocational education and training (VET)

France: Saint-Gaudens and Pamiers agricultural campuses

Greece - Italy - Morocco - Mongolia - Romania

7 partners to promote transhumance among young learners

Cofinancé par le programme Erasmus+ de l'Union européenne

Members of the international pole in Saint Gaudens

Fabienne

- Manager for the international projects at campus : ERASMUS – LEADER - POCTEFA
- Management for the promotion of IGP – Label rouge and Organic production
- Manager the Unesco's CLUB « Transhumances and Transitions »
- Focal Point France Nomination Transhumance UNESCO ICH
- Participate at the training about pastoralism for student
- Take care about the school's transhumant

sheep for summer time



- Mathilde

Administrative and financial project

1 – Project objectives

* Implement actions in line with the international plan to safeguard transhumance as part of UNESCO's Intangible Cultural Heritage (ICH).
* Responding to climate challenges with adapted agro-ecological practices
* Build of partnerships training establishments
* Improve the attractiveness of professions related OF transhumance

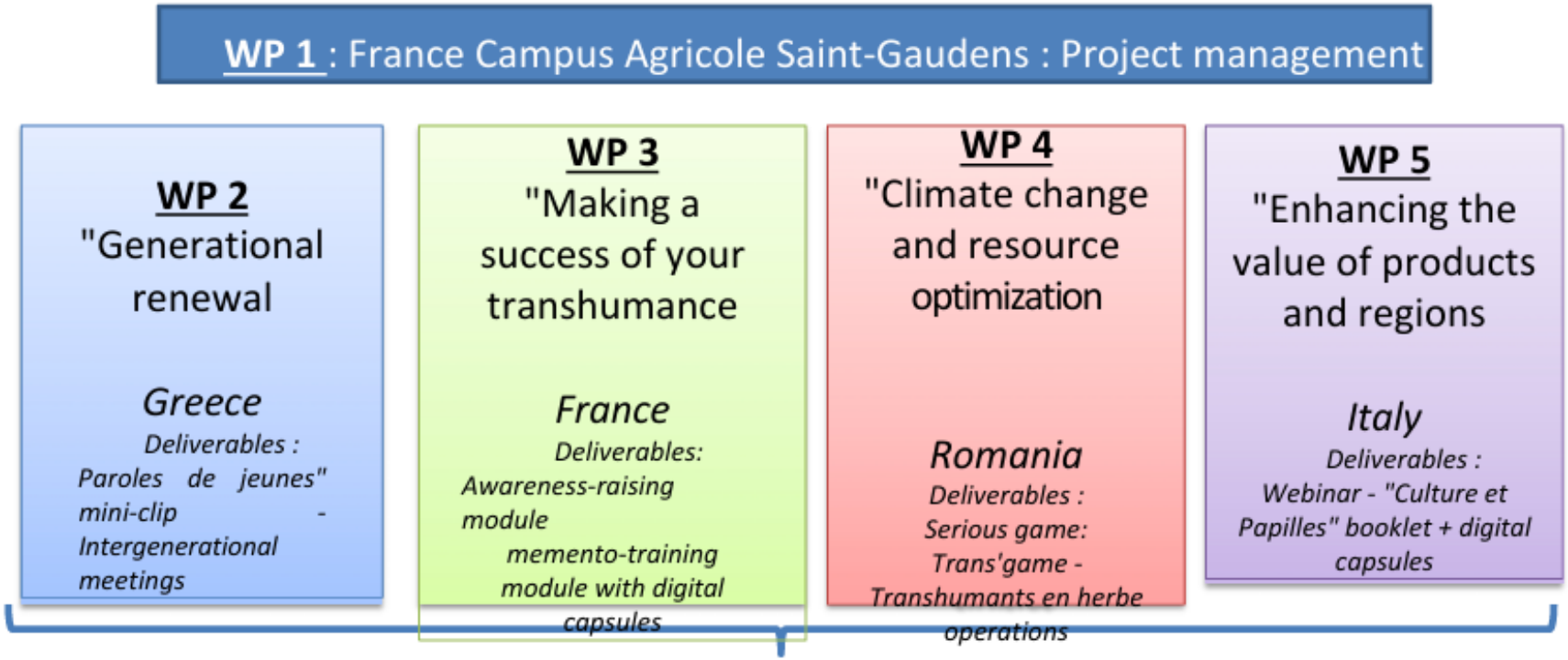
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2 – Partner countries

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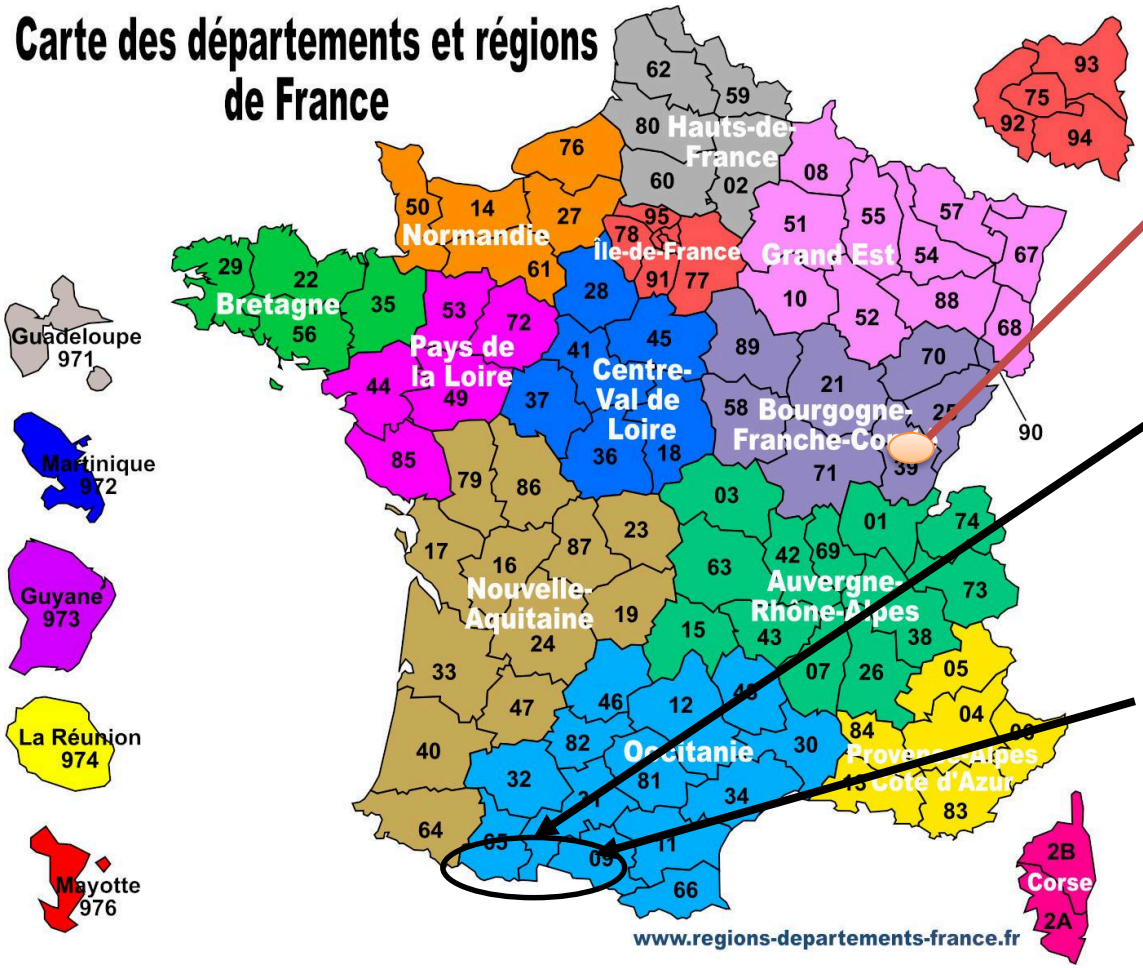


3 – Activities and deliverables



Cofinancé par le programme Erasmus+ de l'Union européenne

France : 2 partners



EPL Montmorot(39) membre associé pour le Maroc

EPL de Saint-Gaudens (31) chef de fil

EPL de Pamiers (09)

Région Occitanie

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Lycée Agricole de Pamiers

SITE :

http://www.lyceeagricolepamiers.fr/

Lycée Agricole Ariège - Pyrénées PAMIERS

ENSEIGNEMENT AGRICOLE L'AVENTURE DU VIVANT LES MÉTIERS GRANDEUR NATURE



Lycée Agricole de Pamiers

SITE :

http://www.lyceeagricolepamiers.fr/

Lycée Agricole Ariège - Pyrénées

PAMIERS

ENSEIGNEMENT AGRICOLE

L'AVENTURE DU VIVANT

LES MÉTIERS GRANDEUR NATURE

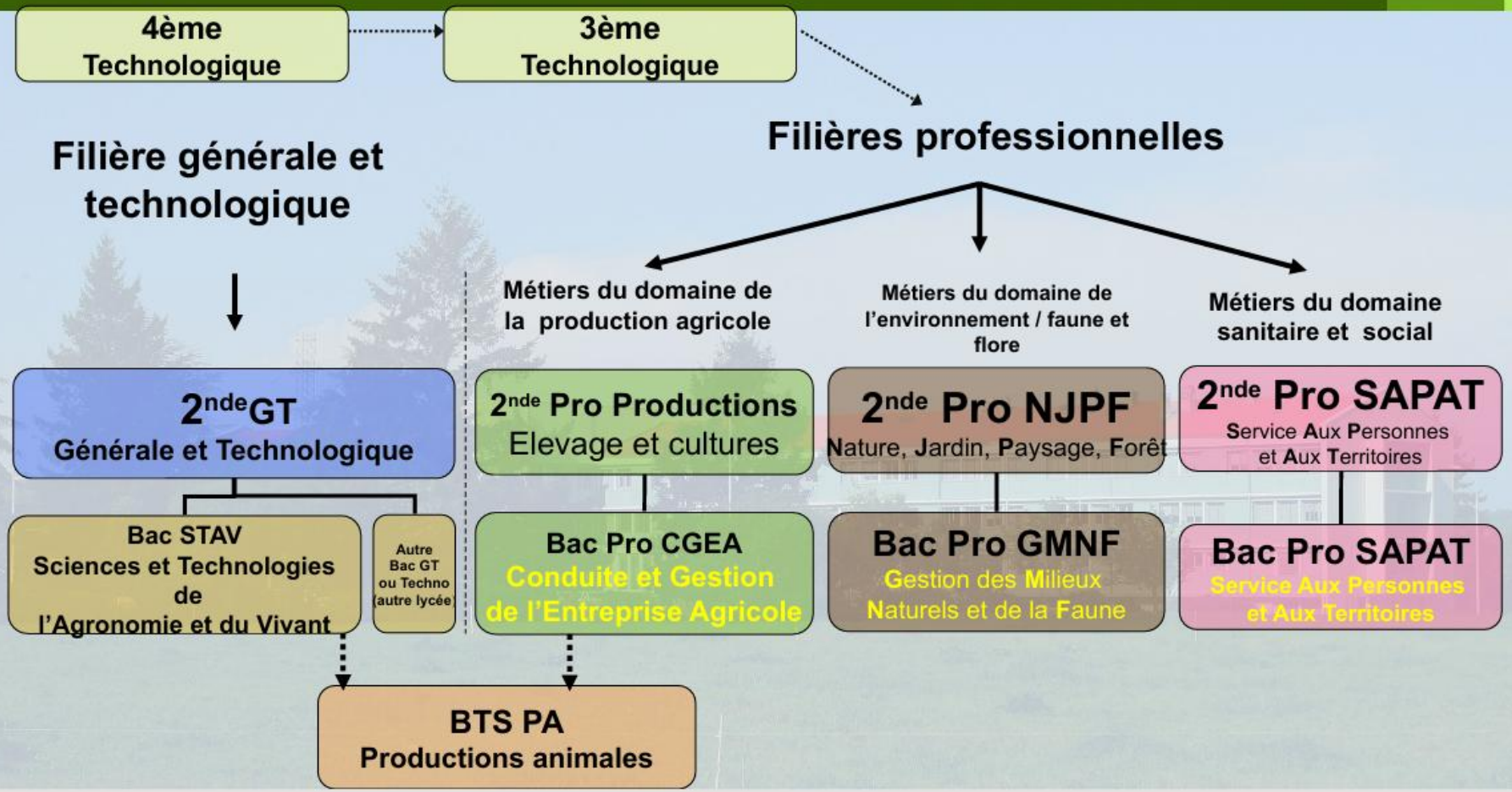
Un lycée à taille humaine (360 élèves)

Un environnement nature

Un internat accueillant



NOS FORMATIONS



L'EXPLOITATION AGRICOLE

L'EXPLOITATION AGRICOLE

Atelier laitier
75 vaches
Brune
640 000 litres
Qualité du lait ++

Atelier viande
15 vaches
Gaconne des Pyrénées
Boeufs / broutards
Premiers pas en estive

Le foncier
SAU = 100 ha
Zone de plaine
14 ha Agroforesterie







Campus Pyrénées Comminges

Lycée de Serres Olivier
Campus Pyrénées Comminges

Centre de Formation
Campus Pyrénées Comminges

Ferme de Borde Basse
Campus Pyrénées Comminges







Métiers de la Vente

CAP SAPVER – Bac pro TCVA

CAPa SAPVER

CAP prioritaire, au lycée

Services A la Personne …



.Autour des personnes âgées et/ou dépendantes

… et Vente en Espace Rural



Vendeur/vendeuse en Alimentation générale
Produits frais,
Fruits et légumes, Épicerie, Prêt-à-porter etc.

Bac Pro TCVA

CAP prioritaire, au lycée

Technicien Conseil Vente option
« produits Alimentaires et boissons »





Emplois visés

- Vendeur(euse) en produits frais – commerce en gros
- Commerçant(e) – Vendeur(euse) en produits frais
- Premier(ère) vendeur(euse) en produits frais
- Vendeur(euse)

Evolutions possibles

- Chef adjoint de rayon,
- Chef de rayon,
- Manager de secteur,
- Directeur adjoint de magasin.

Lycée Olivier de Serres
Campus Pyrénées Comminges

Métiers de l'Agriculture

Centre de Formation
Campus Pyrénées Comminges

CAPa MA
En alternance, au CFA
Métiers de l' Agriculture

Option Ruminants



Option Grande Culture



Secteurs d'emplois
- Ouvrier agricole,
- Salarié d'une exploitation, service de remplacement, CUMA, coopérative…

Poursuite d'études
BP REA ou Bac Pro CGEA

Bac Pro CGEA
Au lycée
Conduite et Gestion d'une Entreprise Agricole

BP REA
En alternance, au CFA
Responsable d'une Entreprise Agricole



Secteurs d'emplois
. Chef d'entreprise: (installation ou reprise d'exploitation)
. Salarié en groupement d'employeurs,
. Salarié dans une CUMA, un service de remplacement,ou une coopérative,
. Prestataire de services pour une entreprise de travaux agricoles

Poursuite d'études
BTS
Ecole d'ingénieur

BTSa PA
En alternance, au CFA
Production Animale



Secteurs d'emplois
- Conseiller.ère agricole
- Controleur.se lait
- Inséminateur.trice …

Poursuite d'études
Certificat de Spécialisation,
Licence professionnelle,
Ecole d'ingénieur,
Soigneur animalier,
Prépa veto…

Métiers de la Nature

Centre de Formation
Campus Pyrénées Comminges

CAPa JP

En alternance, au CFA

Jardinier Paysagiste





Secteurs d'emplois

- Ovrier paysagiste, employé communal au service espaces verts
- Entretien espaces verts (tonte, débroussaillage,taille, desherbage…)
- Aménagement paysager (plantation, construction, arrosage, engazonnage, dallage, création…)

Poursuite d'études

BP ou Bac Pro Aménagement Paysager
BP Responsable de Chantiers Forrestiers

Métiers du Service

CAP AEPE - CAP SAPVER – Bac pro SAPAT

CAP AEPE

En alternance, au CFA

Accompagnement Educatif Petite Enfance





Secteurs d'emplois

- Crêches, maternités,
- Ecoles maternelles, ALAE, CLAE,
- Centres de loisirs…



CAPa SAPVER

CAP prioritaire, au lycée

Services A la Personne …



- Autour des enfants
- Autour des personnes âgées et/ou dépendantes

… et Vente en Espace Rural



Vendeur/vendeuse en Alimentation générale Produits frais, Fruits et légumes, Épicerie, Prêt-à-porter etc.

Bac pro SAPAT

Au lycée

Services A la Personne et Au Territoire



Secteurs d'emplois

- Tourisme, Animation patrimoniale et culturelle,
- Social, Service à la personne,
- Accueil en milieu rural
- Administration, Développement et animation des territoires ruraux



Agriculture Farm of Saint gaudens

-1 directeur/director

-5 salariés/employees

-1 apprenti

-Educational support for students



https://www.youtube.com/watch?v=Q54sXDC9OjI



190 ha useful organic agricultural area

-72 ha tempory meadows

-60 ha permanent meadows

-sunflower, corn, alfaalfa, mix

10 to 15 projects and/or experiments carried out on the farm

Themes: feeding, forage and food autonomy, combating and adapting to climate change

L’atelier vaches laitières en Agriculture Biologique depuis 2011



- 80 cows
- 70/75 Milking cows morning and afternoon
-400 000 à 450 000 litres produits par an,
380 000 à 400 000l commercializes fr a big company
20000l for calves et 15000l for yaourt and cheeses



-Average per cow per lactation: 5500kg- 4 Procross breeds: Prim'Holstein, Montbeliarde, Rouge Suedoise or Red VikingRed Viking and Brune des Alpes,
-100% artificial insemination-20 to 22 heifers for renewal
- 3 to 5 calves processed and marketed through direct sales

- -Milking parlour 2 x 6 stations
- -Thermo-voltaic solar barn drying
- -Electricity production sold to EDF-Heat production for hay drying





-Free stall on straw floor with scraped exercise
On farm feed manufacturing unit with storage silos





Dairy processing workshop:15000l processed, i.e. 120,000 yogurt equivalents
Marketed through direct sales and short distribution channels
Students involved in yogurt production and marketingmarketing

Atelier Ovin viande en Label Rouge et marque Agneaux des Pyrénées



250 animals, including 210 Tarasconnaise ewes and40 renewal ewe lambs,

- 300 to 320 lambs born per year,-250 to 280 sold to a cooperative group and 20sold directly
- -Cornadis with 248 places
- -4 lambings in 3 years, 2 Tarasconnais rams and 2 Montagne Noire crossbred

Prolificity rate 1.5
Numerical productivity rate 1.65
Feed: hay + regain + barley + minerals,
Grazing from March to November



Genetic evaluation station for the 6 central Pyrenean breeds:Taracsonnaise, Montagne Noire, Aure et Campan, Castillonnaise, Lourdaise, Barégoise

•-Genetic and morphological evaluation
•-Mid-October auction of breeding rams to local breeders





What’s about the Teachers ?

Catherine : Zootechnics teacher

- in Seconde pro (Agricultural Business Management) and in BTS PA (Animal Production)

- Other missions:
  - head teacher in BTS PA class- Master's course / Animal Production teaching advisor
  - Education au futur” agricultural education network

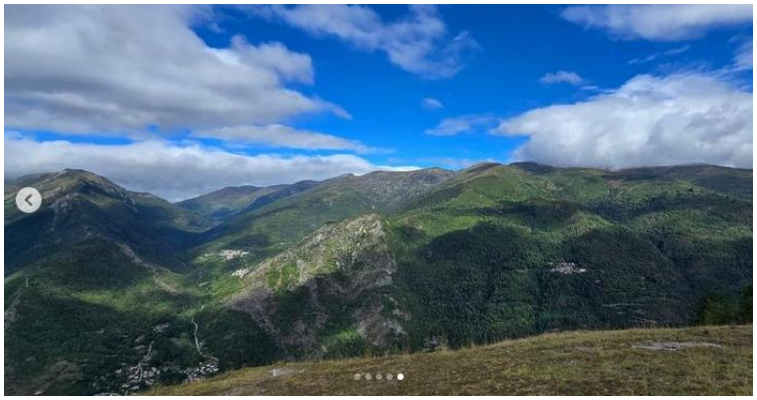






- Transhumance
- - Study of livestock farming systems in our agricultural zonePractices and behaviour of transhumant (and non-transhumant) livestock farms
- -Meet transhumant breeders, shepherds...
- -Participation in a descent of estives





- Ovine meat farming (BTS)
- Technical and economic analysis of transhumant farms

International cooperation

- Support for BTS PA students volunteering to carry out their main internship in an agricultural organization in a foreign country (8 weeks)

- Hosting a Moroccan trainee teacher

- Projects to build, partnerships to develop !

Pascal Teacher in BAC PRO TCVa /CGEA in management/business techniques and economics.

-Other duties:

- main teacher in 2nd year Sales and Production Council class

- help students find internships

- organization of educational visits to France and Spain







- **Search for internships, installations, and evaluation of Spanish trainees in France as part of international cooperation**
- **Organization of educational for Spanish trainees**





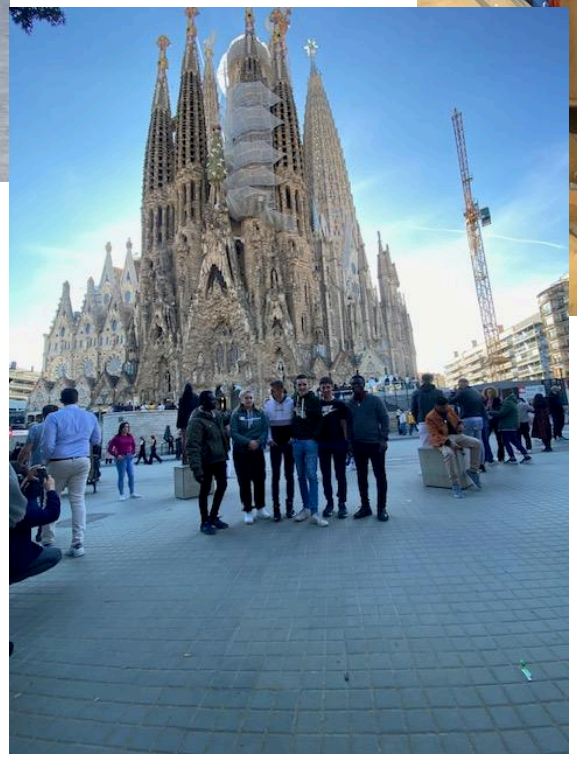


•-ERASMUS internships in Spain for French students









Jean-François

- Breeder of 600 local sheep Castillonaises practices horizontale Transhumance





- Teacher BTSA animal production and transformation
- Service civic follow up with Fabienne

From Togo



Président of an association
= promotion of quality promotion
IGP - Label rouge – organic production



Manage the OVINPIADES Training students

Member of the association AGRIVALEUR which promotes the horizontale and verticale transhumance www.agrivaleur.fr

Greece



Place for intergenrational meetings

ELLINIKOS GEORGIKOS ORGANISMOS - DIMITRA
[HELLENIC AGRICULTURAL ORGANISATION - DIMITRA]

DECISION 188763
KOURTIDOU 56-58 11145
ATHINA

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Italia



ISTITUTO STATALE
OMNICOMPRENSIVO LARINO
VIA MORRONE 1 86035 LARINO

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de l'Union européenne

Morocco

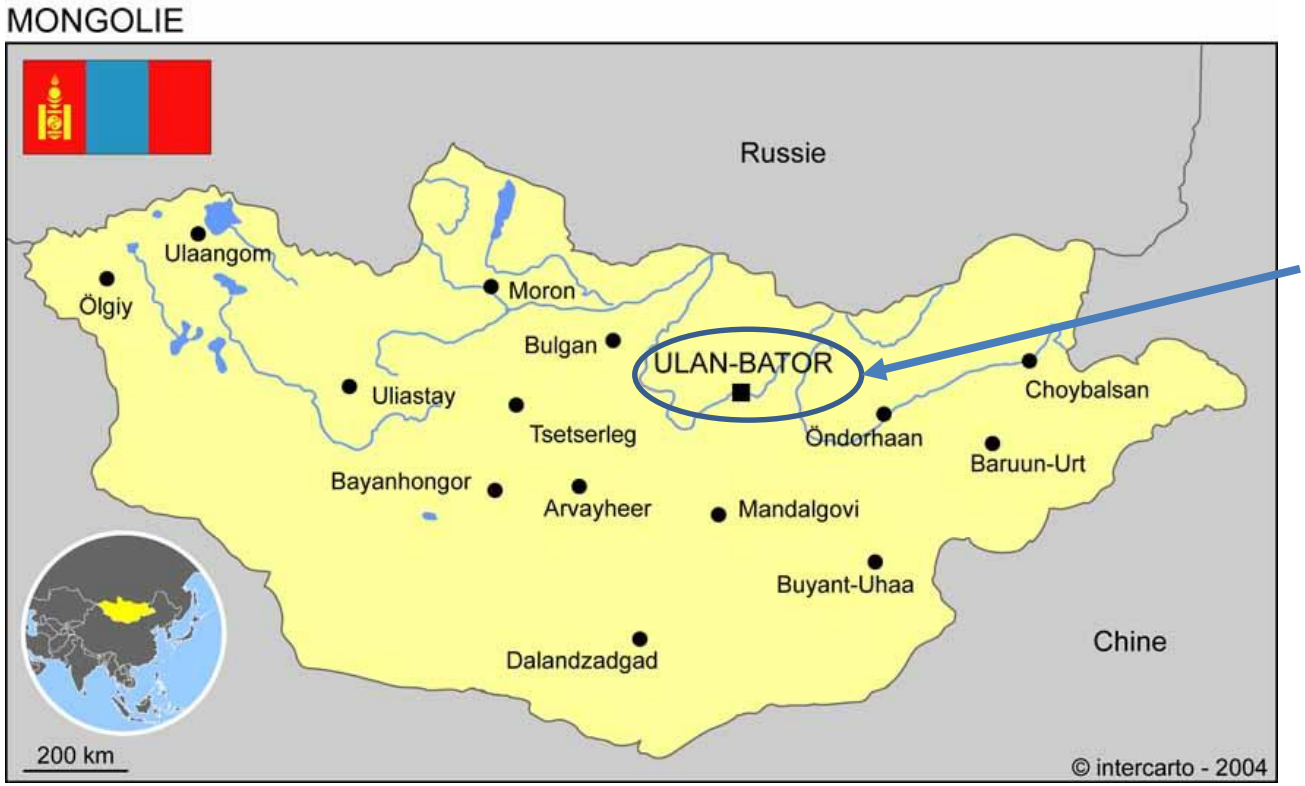


UNIVERSITE IBNOU ZOHR A AGADIR
985096887

PRESIDENCE DE L'UNIVERSITE IBN ZOHR 80000 AGADIR

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Mongolia



MONGOLIAN UNIVERSITY OF LIFE SCIENCES
9099395

ZAISAN KHAN-UUL DISTRICT 11
17024
ULAANBAATAR

Cofinancé par le programme Erasmus+ de l'Union européenne

Romania



LICEUL TEHNOLOGIC AGRICOL "ALEXANDRU BORZA«

3365125
INDEPENDENTEI, 47
335400 GEOAGIU

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Thanks for your attention



French movie about transhumance inscription film

Transhumance Livestock in Greece



Greece has a rich cultural heritage of transhumance, the practice of seasonally moving livestock between different grazing areas. Explore the age-old traditions, rhythms, and challenges faced by Greek shepherds who continue this centuries-old nomadic way of life.

Georgios Ziagkas
Livestock farmer
Doctor of Veterinary Medicine, PhD(c)
Agricultural of Animal Production AUTH, MSc

The Life of a Transhumant Shepherd in Greece

Shepherds lead a nomadic lifestyle, moving their flocks between high-altitude summer pastures and low-lying winter grazing lands across Greece's rugged mountain terrain. **They forge deep connections with their animals**, often forming lifelong bonds with individual sheep, goats and dogs in their care.



Spring journey

- In early spring, shepherd transport their animals to the mountains using trucks. This seasonal movement allows the animals to graze freely in rich pastures, promoting their health and well-being



Autumn journey

- In autumn, we descend from Mount Smolikas, which has an altitude of 2,637 meters, down to the plains over a period of approximately 20 days to a month.
The exact duration depends on the grazing conditions and the availability of food for the animals.
This journey covers a distance of about 200 kilometers and is an essential practice to ensure the livestock have access to adequate grazing throughout the year, following the natural cycles of pasture availability in the region

- This is a seasonal migration that happens every year as the weather turns colder

- The shepherds guide their flocks of sheep, goats, or other livestock down from the high mountain pastures to the lower valleys where they can find shelter and food for the winter

- The shepherds must carefully manage the herd, ensuring the animals stay together and make it to the winter base safely

The Journey Begins: Preparing for Transhumance

Before migrating from the mountains to the lowlands, livestock farmers carefully prepare their animals for the journey. This preparation includes

- shoeing the horses
- putting bells on the leading goats,
- counting the sheep
- and marking the white sheep with red soil and water. This is an ancient technique which help the shepherds to distinguish their flock from others encountered along the route.









Traveling with the Flock

Shepherds lead their flocks on ancient migratory routes, often covering dozens of miles each day as they navigate rugged mountain passes and winding trails.

The journey is a test of endurance, with shepherds and their animals braving unpredictable weather, steep terrain, and potential predator encounters.

Daily Life on the Road



Rise Before Dawn

Shepherds wake before dawn to tend to their flock, checking for any injuries or illnesses.

Guiding the Herd

They guide the herd to fresh grazing areas, carefully managing the pace to prevent exhaustion.

Simple, Hearty Meals

Meals are simple but hearty, often featuring local cheeses, breads, and seasonal produce.

Gathering at Dusk

In the evenings, shepherds gather with their families around the campfire, sharing stories and songs.

Camping and Resting with the Flock



1 Setting Up Portable Shelters

At the end of each day's trek, shepherds set up their portable shelters to provide a safe and comfortable resting place for their flock.

2 Peaceful Grazing

The flocks graze peacefully through the night, watched over by the shepherds and their loyal herding dogs.

3 Tending to the Flock

Shepherds take advantage of these camping periods to mend any equipment, tend to their animals, and prepare for the next day's journey.


THANK YOU!!!

ISTITUTO OMNICOMPRENSIVO “MAGLIANO”
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C.F90011260701C.M. CBIC836002E-mail: cbic836002@pec.istruzione.it -
cbic836002@istruzione.it - www.omnicomprensivolarino.edu.it

ISTITUTO TECNICO AGRARIO

CON CORSO SERALE

ISTITUTO PROFESSIONALE PER L'AGRICOLTURA LO SVILUPPO RURALE VALORIZZAZIONE DEL TERRITORIO E GESTIONE DELLE RISORSE FORESTALI E MONTANE

SEZIONE CARCERARIA

Larino



San Pardo
ISTITUTO TECNICO AGRARIO E GEOMETRI CON CONVITTO

Aula didattica Giovanni Luccitelli - ubicata in azienda



Campo catalogo varietà olivicole del Molise- Unico nella Regione!

Campo varietale di piante da frutto autoctone



Campi sperimentali:

-cereali

- leguminose

- oleaginose

-zafferaneto

- giardino delle piante officinali

- tartufaia

- serra idroponica



Vigneti



San Pardo
ISTITUTO TECNICO AGRARIO E GEOMETRI CON CONVITTO

FILIERA
OLIVICOLO-OLEARIA



















LABORATORIO RICERCA E SVILUPPO
SETTORE LATTIERO-CASEARIO

IN COLLABORAZIONE CON

Mediterranea Biotecnologie

San Pardo
ISTITUTO TECNICO AGRARIO E GEOMETRI CON CONVITTO



FILIERA AGROALIMENTARE:
TRASFORMAZIONE DEI PRODOTTI

Next generation labs
Laboratori per le professioni digitali del futuro







Piano Scuola 4.0

PROGETTO ERASMUS ECO-TRANSH

EPLEFPA DE SAINT-GAUDENS France Midi-Pyrénées Saint-Gaudens (Leader Partner)

LICEUL TEHNOLOGIC AGRICOL "ALEXANDRU BORZA" - Geoagiu Romania

MONGOLIAN UNIVERSITY OF LIFE SCIENCES - Ulambataar Mongolia

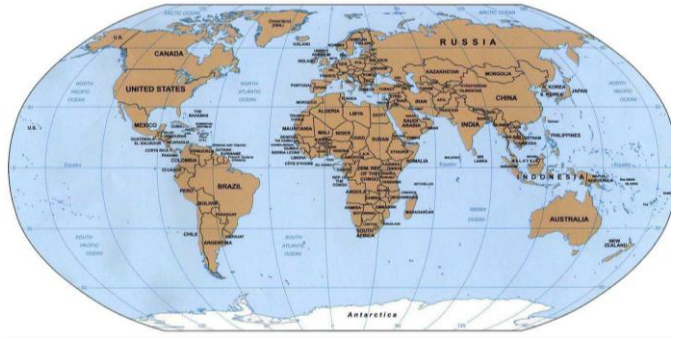
ISTITUTO OMNICOMPRENSIVO LARINO - Ist Tec. Agrario "San Pardo" Larino Italia

ELLINIKOS GEORGIKOS ORGANISMOS – DIMITRA Grecia

UNIVERSITE IBNOU ZOHR A - AGADIR Marocco

EPLEFPA PAMIERS France Midi-Pyrénées Pamiers

San Pardo
ISTITUTO TECNICO AGRARIO E GEOMETRI CON CONVITTO



La **Transumanza**, riconosciuta Patrimonio Culturale Immateriale dell'UNESCO (ICH), è una pratica positiva in ottica di attualità per le questioni climatiche, economiche e sociali.













PROGETTO ERASMUS ECO-TRANSH

						
Ambiente e cambiamento climatico	Valorizzazione e sviluppo sociale	Creazione e attuazione di strategie di internazionalizzazione	Migliorare l'attrattiva delle professioni legate alla transumanza	Costruire partenariati per rafforzare la rete internazionale degli istituti di formazione, attori della transumanza	Rispondere alle sfide climatiche attraverso pratiche agro-ecologiche adattate	Attuare azioni in linea con il piano internazionale di protezione della transumanza

Interreg
Italy - Croatia
OF COOPERATION

VERA PROJECT

Focus: tutela della biodiversità agricola di Italia e Croazia in ottica di prevenzione e protezione dall'erosione genetica.



L' ITAeG "San Pardo" promotore della realtà olivicola del nostro territorio in meeting, workshop e scambi transfrontalieri con la Croazia



San Pardo
ISTITUTO TECNICO AGRARIO E GEOMETRI CON CONVITTO

Sperimentazione grani antichi; difesa sostenibile

Sperimentazione Cerealicola

Sperimentazione Leguminose

Conservazione genoma piante da frutto

Benessere Animale

Tutela Biodiversità-specie aliene

Sperimentazione piante tartufigene; campo catalogo olivicolo

Conservazione genoma grani antichi

Mediterranea Biotecnologie
FERMENTI LATTICI E PROBIOTICI

ANPAL
Agenzia Nazionale Politiche Attive del Lavoro

Adecco

fruttagel
Scelta naturale

syngenta

- COMUNE DI LARINO
- ASSOCIAZIONE LARINELLA
- ASSOCIAZIONE "IL MELOGRANO"
- SPRAR LARINO/CASACALENDA
- ORDINE PROVINCIALE DEI PERITI AGRARI
- ORDINE PROVINCIALE DEI GEOMETRI
- ASSOCIAZIONI DI CATEGORIA
- LIONS

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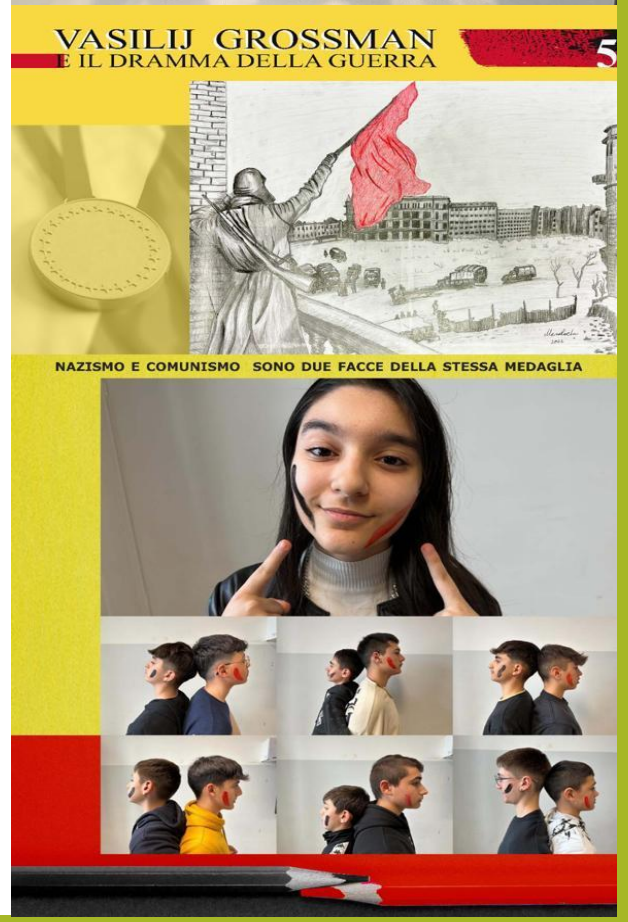
Luigi D'Arienzo – studente dell'ITA «San Pardo», vincitore della XVII edizione del **concorso letterario nazionale "Bere il territorio"**, con un lavoro dal titolo: "**La vera storia della Tintilia del Molise**". Concorso promosso dall'associazione "**Go Wine**"- Piemonte.

Pre COP 26 "ALL4CLI MATE - I taly 2021"
Milano, 29-30 settembre 2021



I. C.A.R.E.





PREMI ARTISTICI

San Pardo
ISTITUTO TECNICO AGRARIO E GEOMETRI CON CONVITTO



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C.F 90011260701 C.M. CBIC836002 E-mail: cbic836002@pec.istruzione.it - cbic836002@istruzione.it - www.omnicomprensivolarino.edu.it

Grazie per l’attenzione

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ISTITUTO TECNICO AGRARIO E GEOMETRI CON CONVITTO

ERASMUS ECO-TRANSH

ROMANIA

AGRICULTURAL TECHNOLOGY HIGH SCHOOL,, ALEXANDRU BORZA,, GEOAGIU



Open day



Familiarize future students with the profession of animal breeder



Enter into contracts with economic



Student courses



Students practically learn how to



A veterinarian teaches them how to care for



sheep grazing on the football field



Digi  oring

Study visit to a cow farm



The drone used to determine carr





Apply treatments by drone





Sheepfold



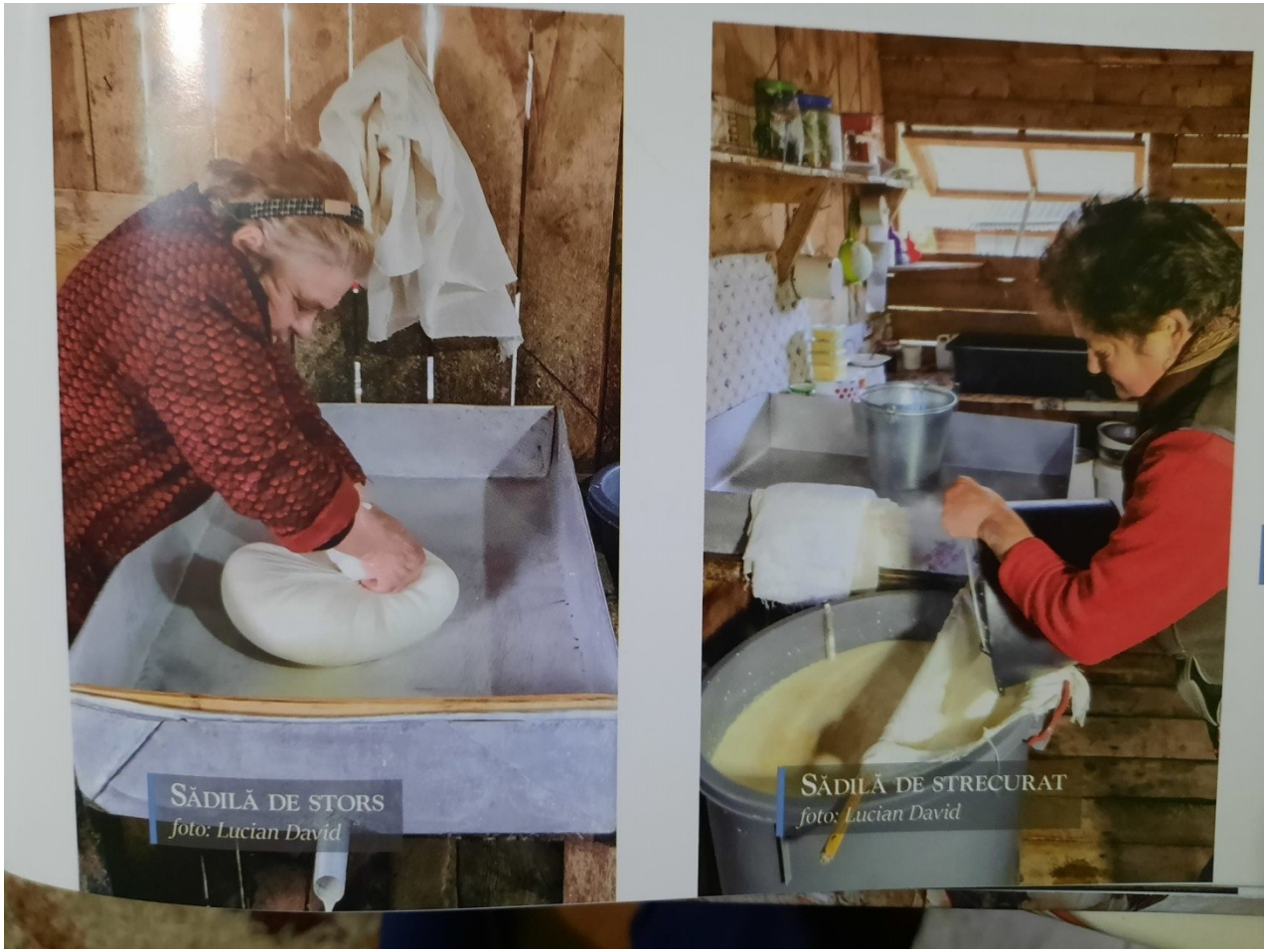
Setting up a sheepfold



passing sheep on the turn,,strungă,,



preparation of cheese



container house

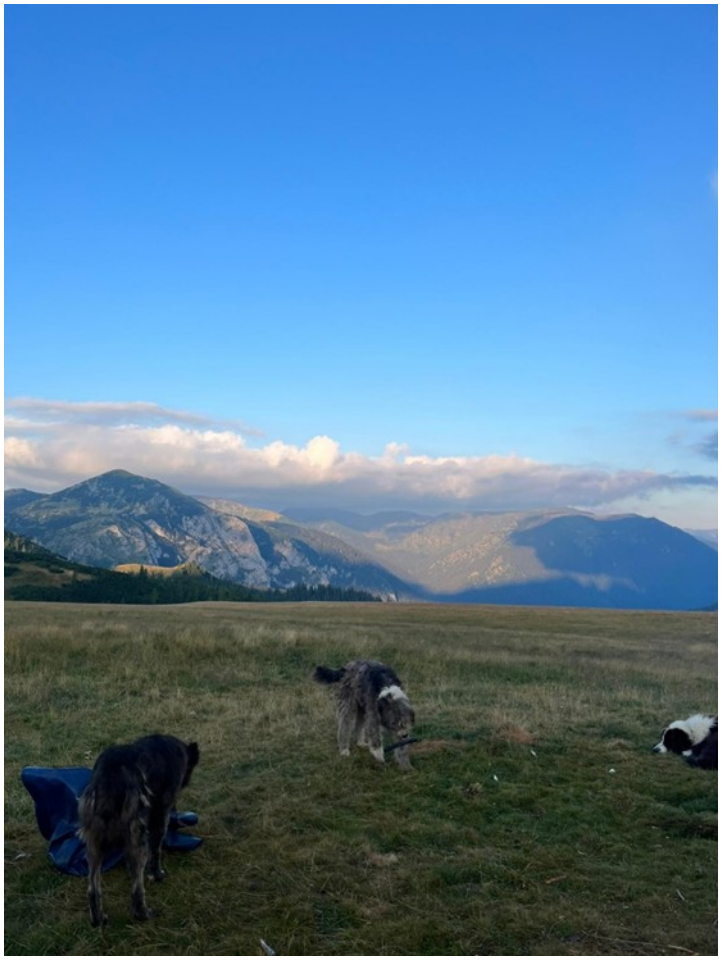


Container brought to the mountain by helicopter



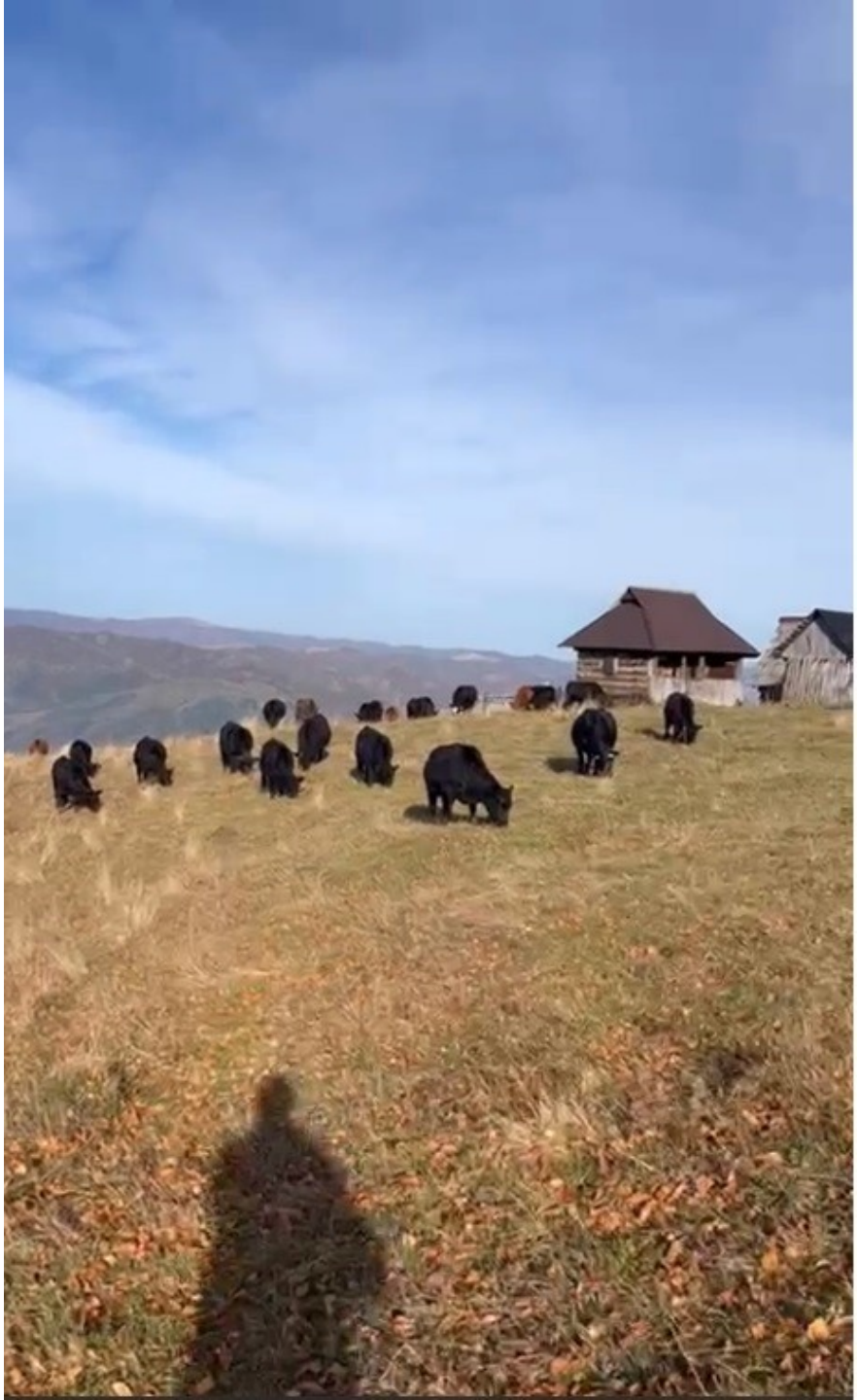
Sheep climbing the mountain

















Țurcana Sheep Festival



The most beautiful sheep is ch he



Sheep breeders present their finest



Solar panels for electricity



Cov heir
be ne





The trip also takes 10 days



Professional training course





T tor ns
d tr





Processing wool into yarn





ROMANIAN CARPATIAN – SANCTUARY OF BIODIVERSITY, SOURCE OF CULTURE AND TREASURE OF HISTORY

It is said that the Shepherds are the people of the mountains, who have borrowed from the grandeur of nature and who appreciate more than anything the fact of being able to live in communion with it. His table is next to a fir tree, wood is his friend and the earth is his bed.Far from his loved ones, only next to his sheep and the dogs who watch over him, the shepherd lives with intensity everything related to his job, which sometimes makes him forget everything, any other passion, even love.However, the profession of shepherd is not an easy task: looking after sheep often means fighting against bad weather, loneliness, the ugliness of wastelands and the presence of wild animals.Ancient tradition and customs, the consumption of sheep meat and products derived from sheep milk, is a characteristic of the Romanian people, a habit which has its roots in distant times and which is preserved over time, like any ancient tradition.Currently, in transhumance, this periodic migration of shepherds and flocks of sheep, in the spring from the plains to the mountains and in the fall from the mountains to the plains, is almost impossible to achieve today due to the restrictions imposed on shepherds. and their flocks. However, the shepherds of the regions of continued tradition continue their profession in which they have been good for centuries and modernism has not succeeded in stealing from the ancients of yesterday what they speak of with holiness, namely the love for the Carpathians ., the place that shepherds call “at the gates of heaven”...Timeless guardians of ancient customs and traditions, shepherds constantly transmit their wealth to us, on which we must rely and pass it on to future generations. It's just about being Romanian...

Foto: Luț Bogdan

BRIEF HISTORY OF PRACTICAL PASTORING IN THE CARPATO – DANUBIANO – PONTIC AREA

The tribes (Daco – Geto – Thrace) were scattered over a vast territory in the Balkans, the Carpathians, the Pannonian basin, the North-Pontic steppe, a fact attested by their breed of sheep – Vlach (Turcana), which still exists today today. The military, religious and political center of the Dacian state is located in the Orăștiei Mountains, within the Grădiștea Muncelului - Cioclovina Natural Park.

Shepherd breeding, an ancient traditional Romanian occupation, is the effect of the geographical - ecological - plant structure of the Romanian territory, the existence of natural meadows, traditions, but also the historical living conditions of the people.

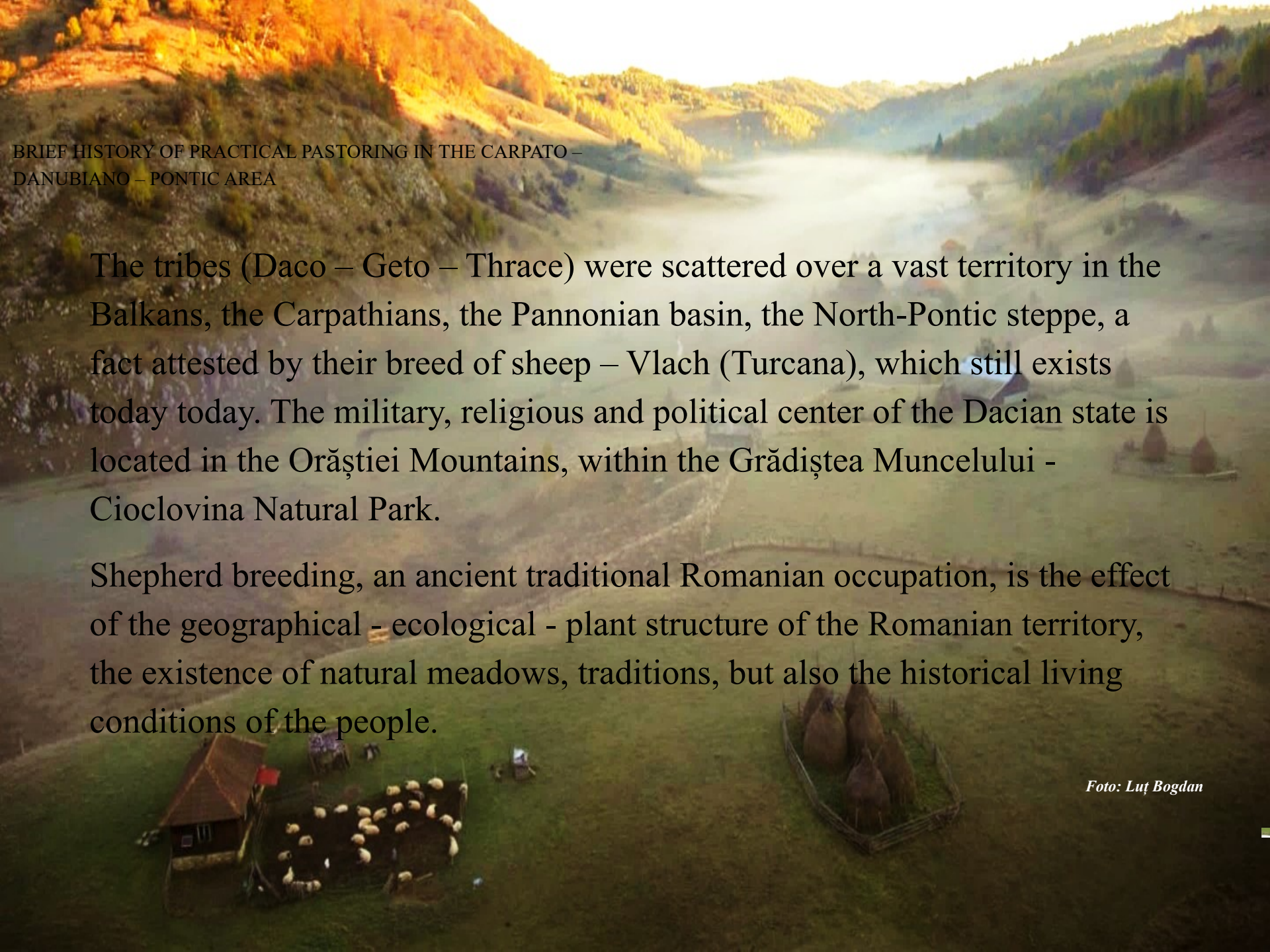


Foto: Luț Bogdan



Rațca

Foto: Luț Bogdan

The other three breeds were probably introduced by the Italic Romans after 100 BC. and they are the following:

2. Țigaia – brought by the Romans to the Carpathian region, then spread to Russia, Ukraine, Czech Republic, Slovakia and Hungary.

3. Valacha with turned horns (corbuson) – Rațca

4. Ruda - grown in various Balkan countries and on the Serbian-Croatian-Hungarian border.

WALLACH = SHEPHERD = ROMANIAN

In 1870, Russian Tsar Nicholas II declared: “Romania is neither a nation nor a state: it is a profession”; For over 1,000 years, Romanian/Aromanian Vlach shepherds roamed from the Pindus Mountains (in present-day Greece), to the forested Carpathians (in southern Poland and Slovakia), to Istria and Dalmatia to beyond the Bug, demonstrating remarkable territorial mobility. ; It has been estimated (Botzan 1996 and Drăgănescu 1998) that each transhumant village had between 100,000 and 150,000 sheep, meaning that only the 40 transhumant viIllages had between 4 and 6 million sheep. "I conquered territories with the sheep", as Iorga said,... but we could not keep them politically. Prof. Dr. Condrea Drăgănescu (Pastureland and Ethnogenesis of Romanians)



Foto: Luț Bogdan

Traditional pastoralism, a sustainable model for protecting biodiversity

- Stakeholders – must develop coherent policies for the promotion and preservation of a traditional extensive pastoral system (transhumance) for the preservation of the environment/biodiversity.
- Within the framework of the Convention for the Conservation of Biodiversity (Rio 1992), a "European Transhumance Charter" was drawn up (Cuenca Spain, 31. X. 1997) signed by the representatives of Spain, Portugal, from France, Romania and Germany.

Foto: Luț Bogdan

MERCI POUR VOTRE ATTENTION!

ECO-TransH

كلية اللغات والفنون والعلوم الإنسانية
FACULTÉ DES LANGUES, DES ARTS ET DES SCIENCES HUMAINES

Transhumance in the Souss-Massa Region, Morocco



Mohamed OUDADA, Jan SIESS, Khadija BOUARIF, Adèle ROY

TUESDAY,November 5,2024

Laboratoire: ESEAD- FLASH (Faculty *of Languages, Arts, and Human Sciences).*
Université Ibnou Zouhr
Agadir-Maroc
Lycée Agricole de Montmorot,partenaire associé

PROGRAM

1. Presentation of the institution : UIZ AFLASH
2. The situation of transhumance/Nomadism in Morocco
3. The Souss Mass Region as a study area
4. Analysis of transhumance in Souss Massa

1. Presentation of the institution : University/FLASH



- ***University Ibnou Zouhr: More than 140.000 .covers the Half of Moroccan territory and 5 of the12 regions***
  Faculty of Languages, Arts, and Human Sciences
- ***Ait Melloul, Morocco (next to Agadir)***
- ***9000 students***
- ***3 laboratories (ESEAD, LILDAS, CLAS)***
- ***Diversity of formation offer :*** *12 bachelor programs, 5 masters programs, 1 PHD program*

2. The situation of transhumance in Morocco

A) Nomadism and transhumance : two similar yet different concepts



Nomadism:

Seasonal movement of people seeking resources (water, pastures).



Transhumance:

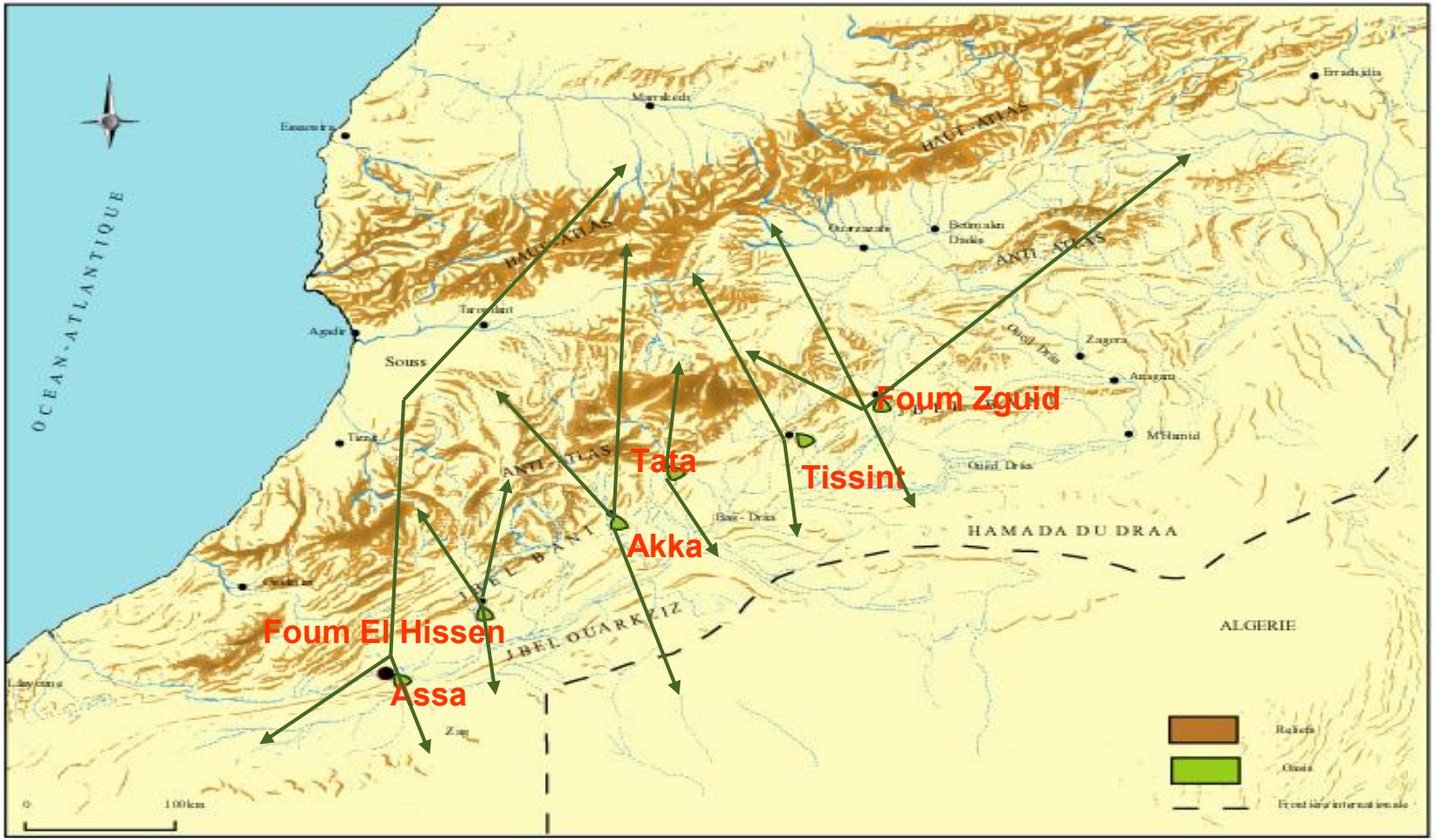
A type of particular pastoralism or nomadism, Periodic movement of livestock between highlands (summer) and lowlands (winter).

2. The situation of transhumance in Morocco

B) History of transhumance in Morocco






OCEAN-ATLANTIQUE
Souss
HAUT-ATLAS
ANTI-ATLAS
JBEL BANI
JBEL OUARKZIZ
HAMADA DU DRAA
ALGERIE
Foum El Hissen
Assa
Akka
Tata
Tissint
Foum Zguid
100 km

3. The Souss Massa region as a study area

A) Souss Massa : an important region for the country and for transhumance



- 53 789 square km
- 2 896 000 inhabitants
- 154 out of 175 townships are rural

3. The Souss Massa region as a study area

B) The 3 major sectors of the region







Agriculture

(first in the contry)

Regionl 17,3% GDP *National 9%*

Fishing

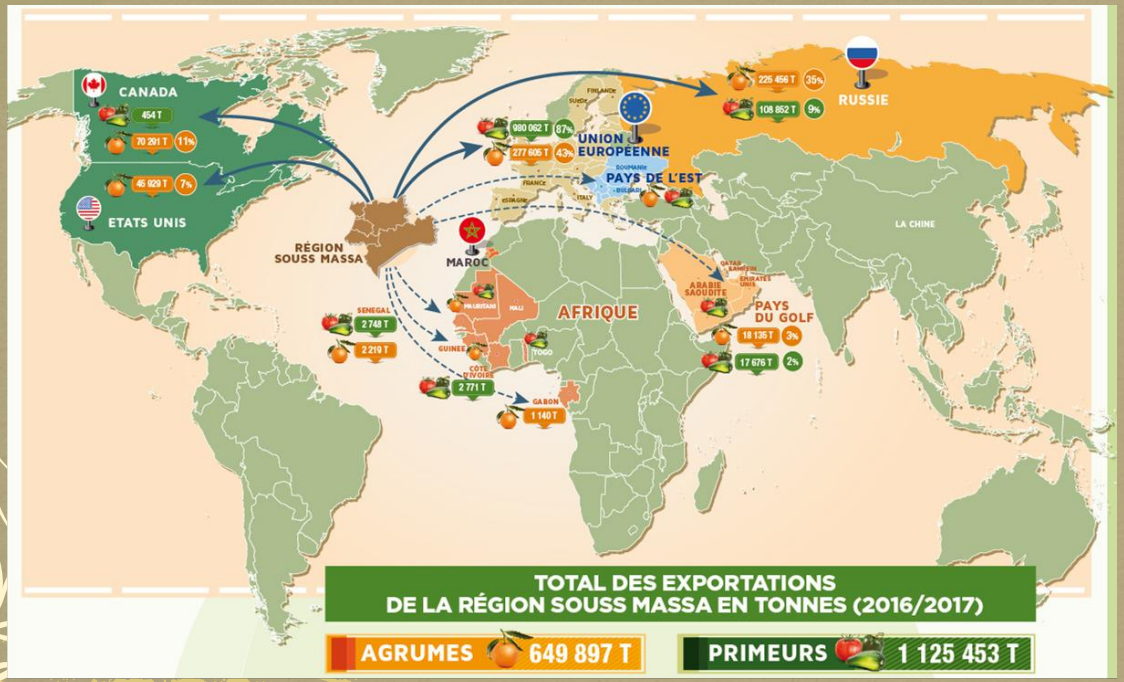
(third in the country)

6 %regional et 42% en National.

Tourism

3. The Souss Massa region as a study area

C) Modern agriculture grows while traditional transhumance declines



Source : Official website of the Souss Massa region

- **Total Cultivated Area :** 450 000 ha
- **⅓ irrigated**
- **Grennhouse market gardening :**
  - 12 084 ha
  - 1 240 980 tons



4. Analysis of transhumance in Souss Massa

A) Three main types of livestock raised



Goats



Sheep



Camels

4. Analysis of transhumance in Souss Massa

B) Life Style of transhumant herders







4. Analysis of transhumance in Souss Massa

C) The routes taken by the herders





Mountains to lowlands

4. Analysis of transhumance in Souss Massa

D) Importance and strengths of transhumance in this area

- Economy based on livestock and trade of products (milk, wool, cheese, leather)

- Environmental importance : interactions between Argan trees and goats









4. Analysis of transhumance in Souss Massa

E) Weaknesses and threats of transhumance in this area

- Drought
- Poverty and lack of education
- Security
- Clash with modern agriculture : danger of plastic and change in water supply









4. Analysis of transhumance in Souss Massa

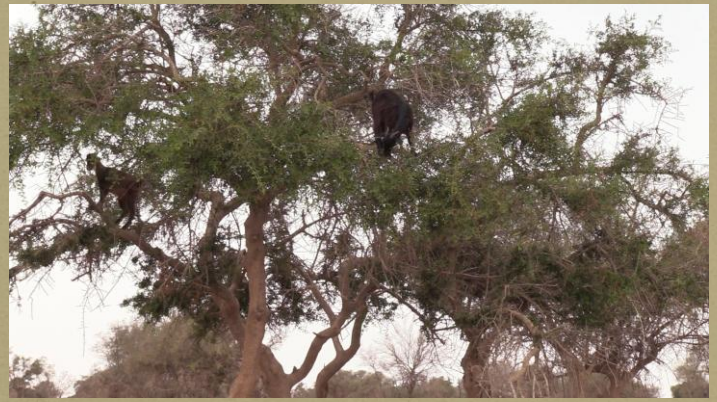
F) Initiatives and future outlook



Conclusion









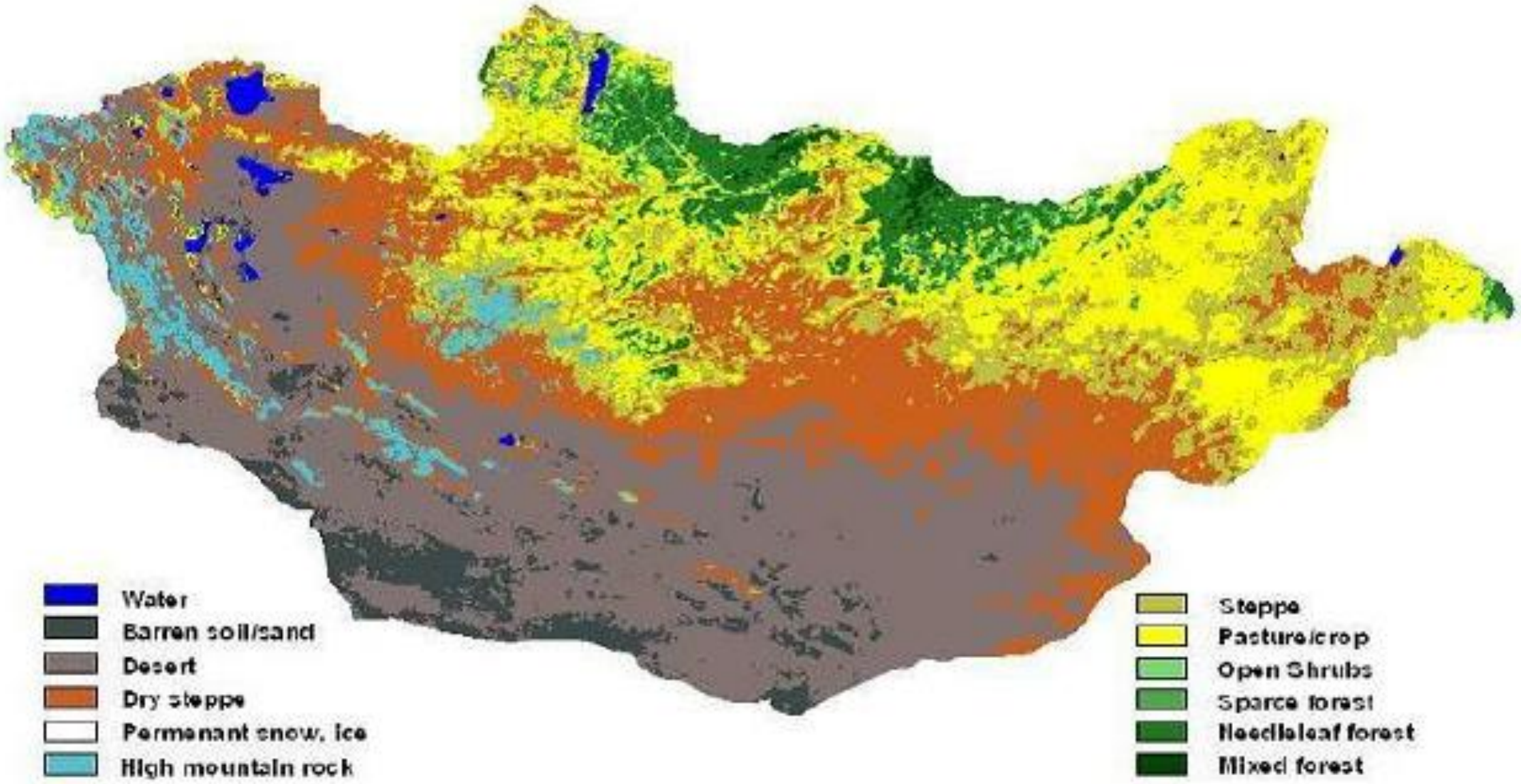


Mongolian nomadic lifestyle & Youth



Mongolia

Located in Central Asia, the country is bordered only by Russia and China



Mongolia is the world's largest landlocked country with a population of over 3.7 million that does not border a closed sea, and much of its area is covered by grassy steppe, with mountains to the north and west and the Gobi Desert to the south. Its economy is primarily based on mining and agriculture. Livestock accounts for 10% of the GDP.

Mongolian weather









In Mongolia, 40% of the people lead a nomadic lifestyle, moving from place to place with their herds, while the remaining 60% live in more permanent settled communities.

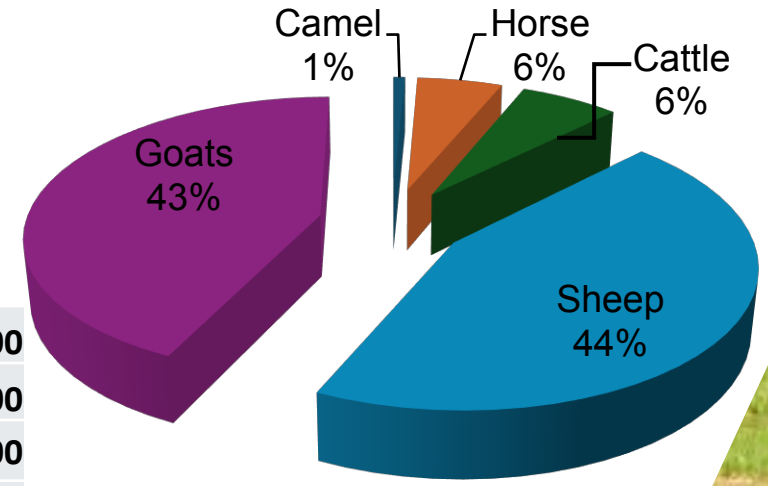









Mongolian domestic animals



Camel	304,000
Horse	4,200,000
Cattle	5,550,000
Sheep	30,800,000
Goats	27,300,000
Total	69,178,000



Milk product processing



Milking cow



Milk boiling



Milk butter



Making yogurt



Making curd

Mongolian migration











Three manly games



Horse racing



Archery

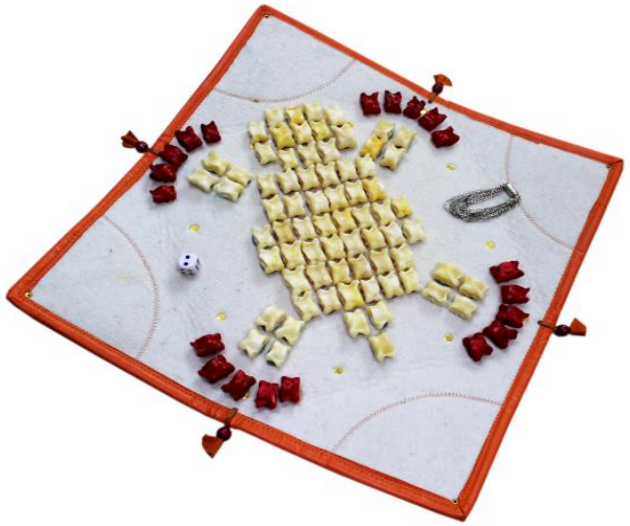


Wrestling

Mongolian traditional games





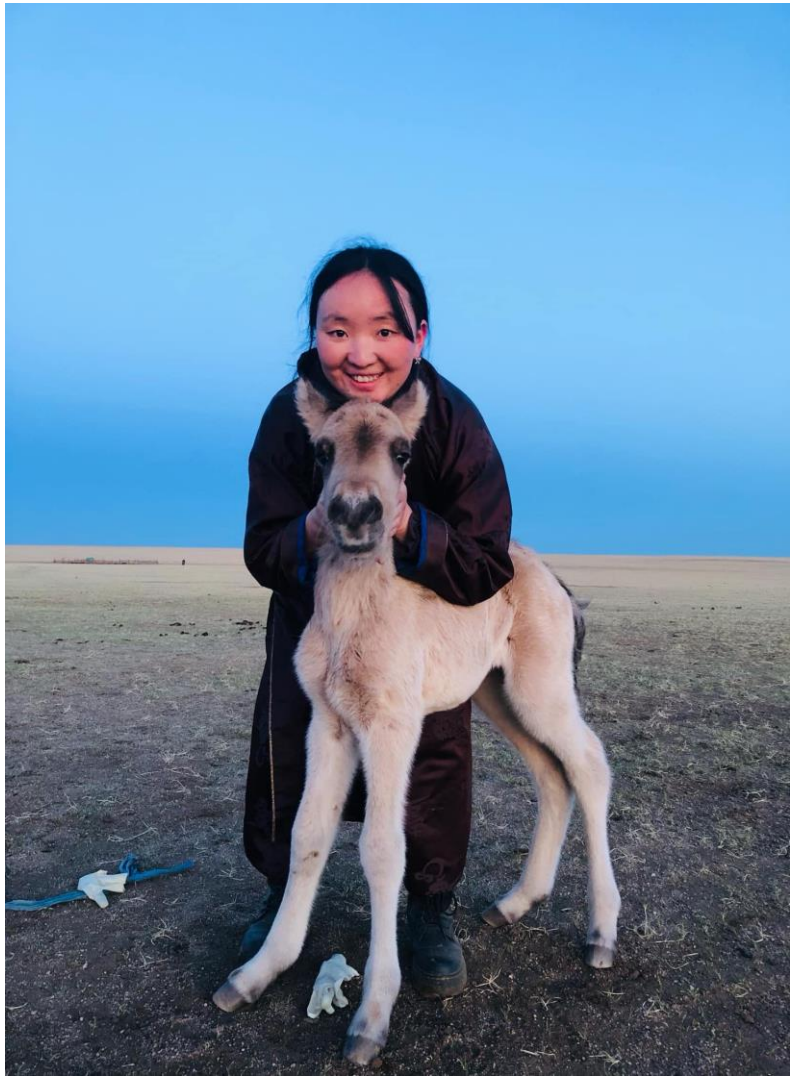


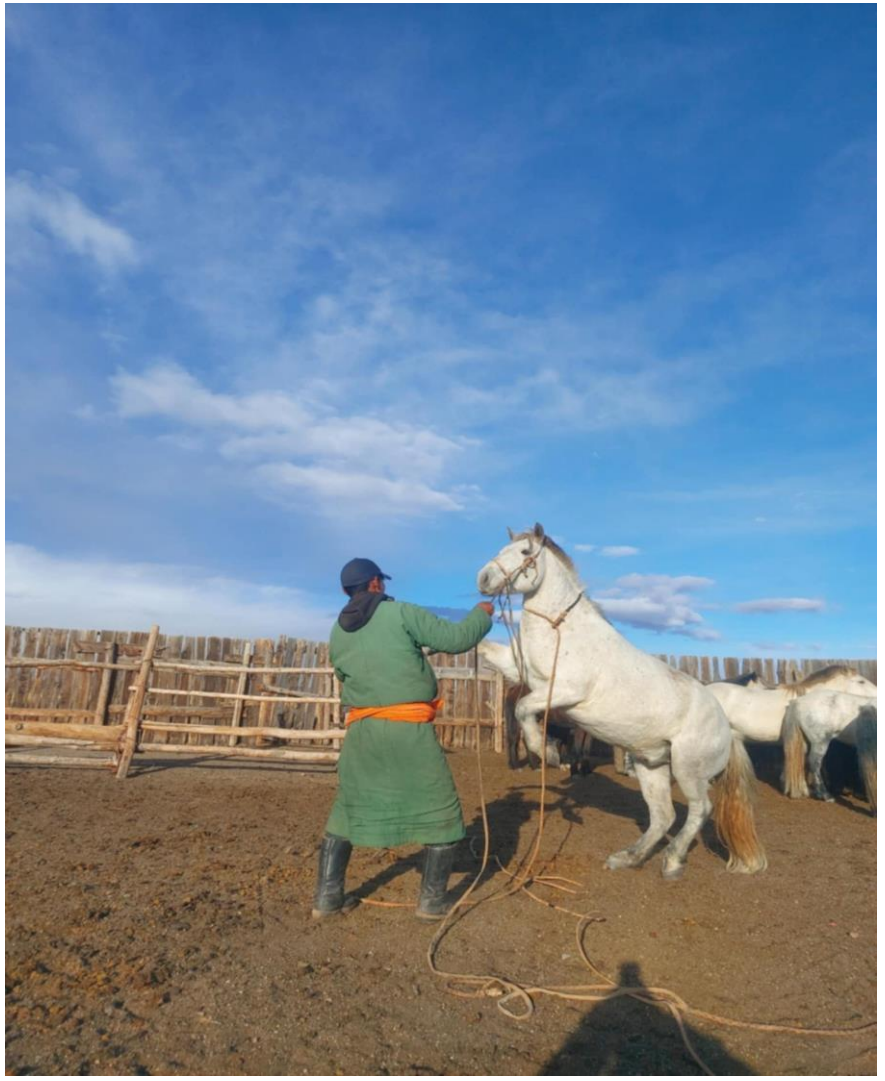




Our nomadic lifestyle



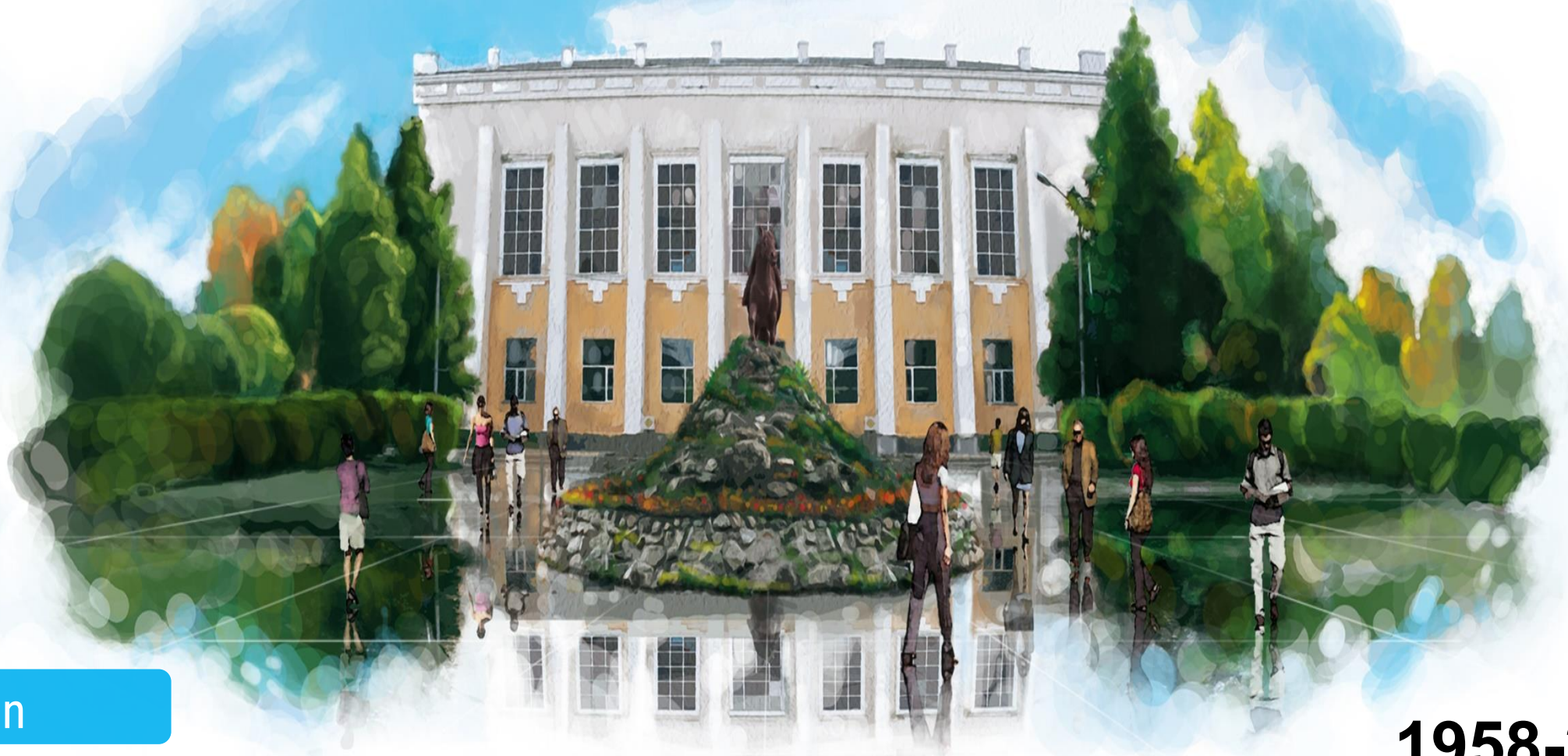








MONGOLIAN UNIVERSITY OF LIFE SCIENCES



Introduction

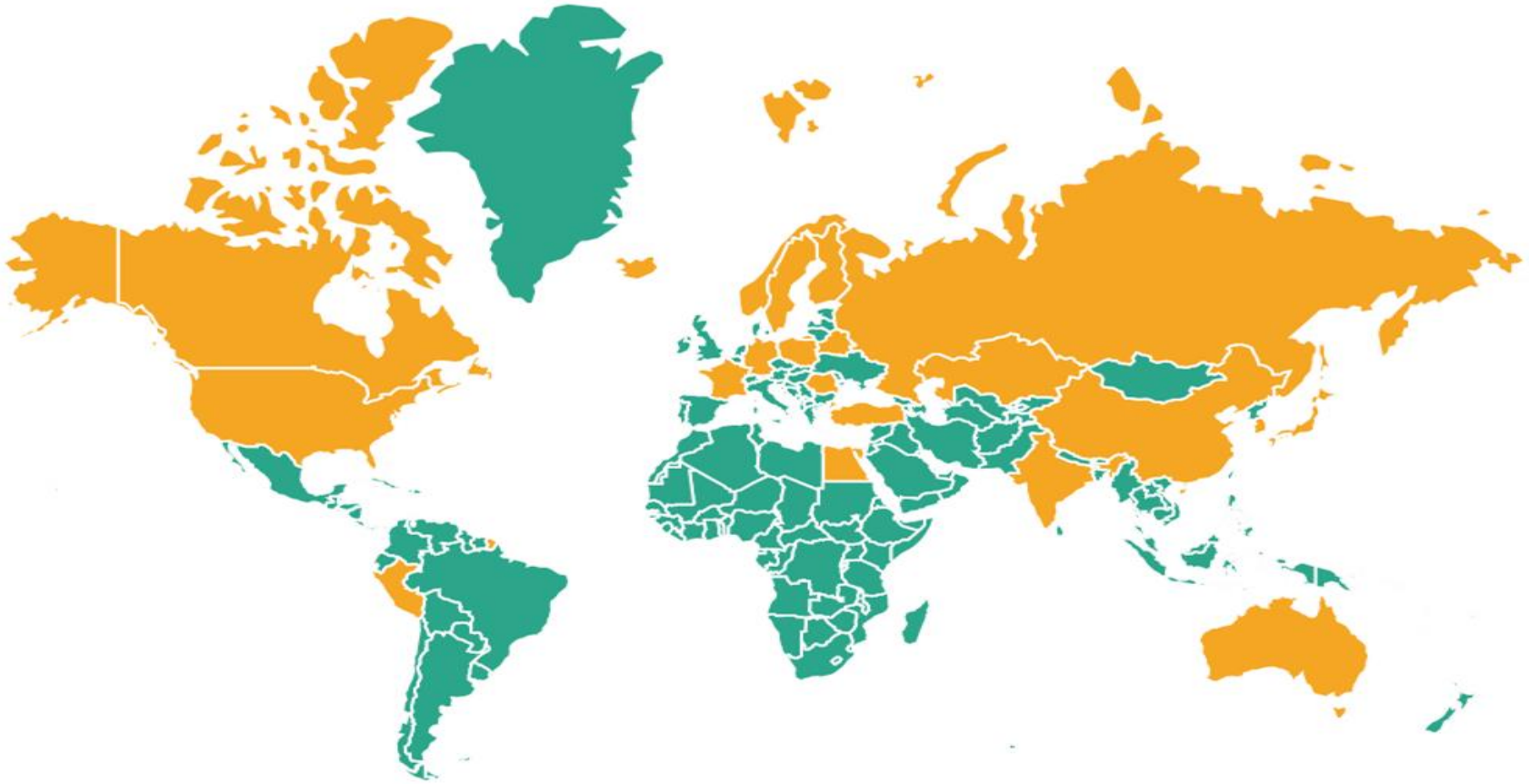
1958-2024

Campus Buildings of Mongolian University of Life Sciences



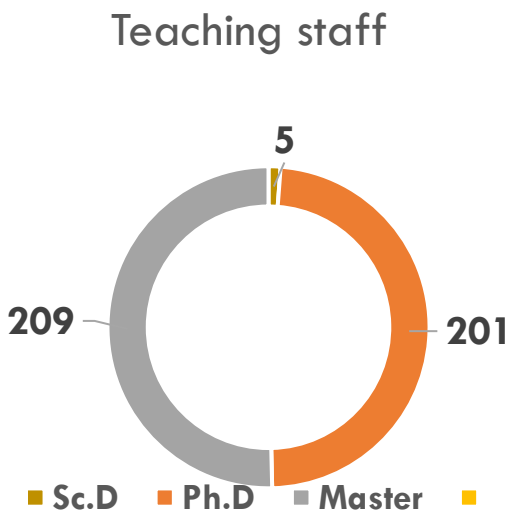
1. Administration Building
2. Main building of Mongolian University of Life Sciences
3. School of Biotechnology and Livestock Breeding
4. School of Veterinary Medicine
5. School of Economics and Business
6. Campus Building 2
7. Department of Mechanical Engineering of the Engineering and Technology School
8. Main Library
9. Veterinary Institute
10. Livestock Breeding Research Institute and Plant Protection Research Institute
11. Student Dormitory I
12. Student Dormitory II
13. Student Dormitory III (International Students)
14. Residential apartments for teachers
15. Institutional Residence Building III for teachers and staff members
16. Institutional Residence Building IV for MULS teachers and staff members
17. Residential apartments for teachers and staff members of the Economics and Business School
18. Residential apartments for teachers and staff members
19. Residential apartments for teachers and staff members of the Engineering and Technology School
20. Residential apartments for teachers and staff members

International cooperation



MULS has established cooperative relationships with **209** universities and institutes from 36 countries.

Current Structure



Teaching and office staff: 748
Undergraduate students: 4185
Graduate students: 2350
International students:
Undergraduate – 5
Graduate - 56

8 schools

- School of Veterinary medicine
- School of Animal Husbandry and Biotechnology
- School of Engineering and Technology
- School of Agroecology
- School of Economics and Business
- School of Applied Sciences
- Darkhan Campus in Darkhan province
- Bayankhongor Campus in Bayankhongor province

Graduate students

4 National research institutes

- Institute of Veterinary Medicine
- Research Institute of Animal Husbandry
- Research Institute of Plant Protection
- Plant Sciences and Agricultural Research Institute

SCHOOL OF VETERINARY MEDICINE



- School of VM was established in 1942
- There are 5 departments and 12 laboratories
- Over 40 lecturers/researchers
- Over 800 undergraduate and 300 graduate students

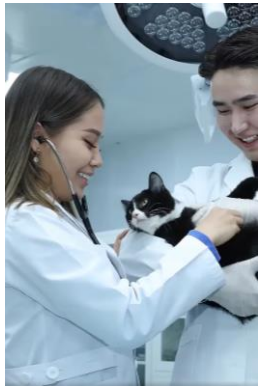
Animal medical center-2023

“A animal medical center that aims to empower Mongolian veterinary specialists”











https://veterinary.muls.edu.mn/
Tel: 976-11-341153, 976-75107777-512, 513
Email: international@muls.edu.mn
Address : International Office, Mongolian University of Life Sciences , Zaisan, 22nd khoroo, Khan-Uul district, Ulaanbaatar 17029, Mongolia

Thank you for your attention



IYRP 2026 INTERNATIONAL YEAR OF RANGELANDS AND PASTORALISTS

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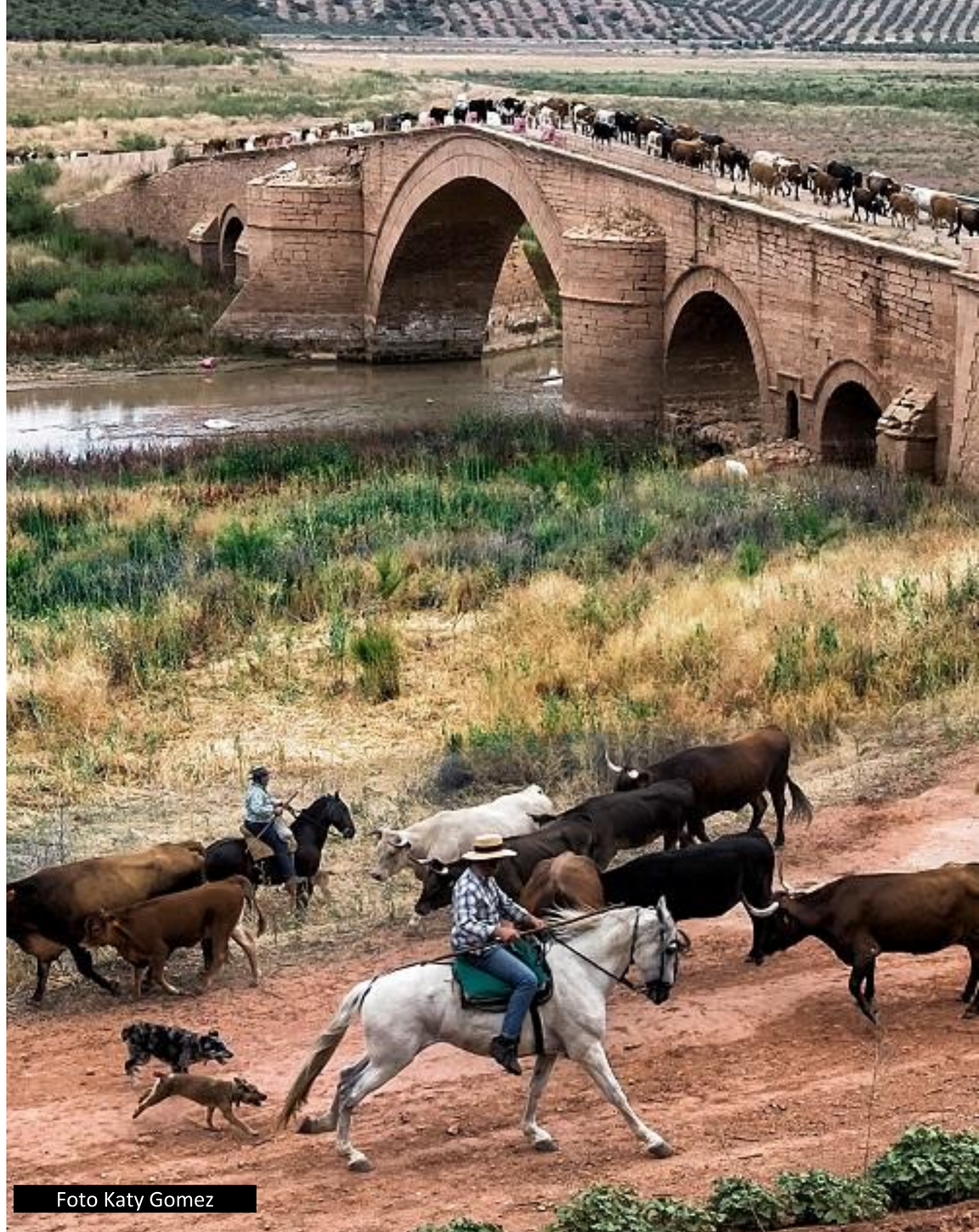
Asociación Concejo de la Mesta

Eco-TransH

Larissa - Greece
05 to 08 Novemberber 2024

ECO-TransH

IYRP 2026
International Year for Rangeland and Pastoralism



15 MARCH 2022: United Nations General Assembly (UNGA) Declared

2026 as International Year of Rangelands & Pastoralists

IYRP 2026 INTERNATIONAL YEAR OF RANGELANDS AND PASTORALISTS

- Movement grew since 2008 into **global coalition of over 300 pastoralist** & supporting national and international organisations, several UN agencies
- Building on these efforts, Government of **Mongolia** proposed resolution to UNGA in **2019,** supported by over 100 countries
- Approved unanimously by UNGA in 2022

FAO facilitates implementation of IYRP 2026

https://iyrp.info/



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IYRP 2026 INTERNATIONAL YEAR OF RANGELANDS AND PASTORALISTS

What does the IYRP seek to achieve?









- **Create awareness** on the contributions of rangelands & pastoralists for food security, the economy ecosystem services, climate resilience & culture
- **Break myths** and misunderstandings on rangelands and pastoralism
- **Fill knowledge gaps** with more participatory research and engagements
- **Promote evidence-based policies and legislation** throughout the world in support of sustainable rangelands and pastoralism
- **Increase sustainable and ethical investment** in rangelands & pastoralist livelihoods

https://iyrp.info/

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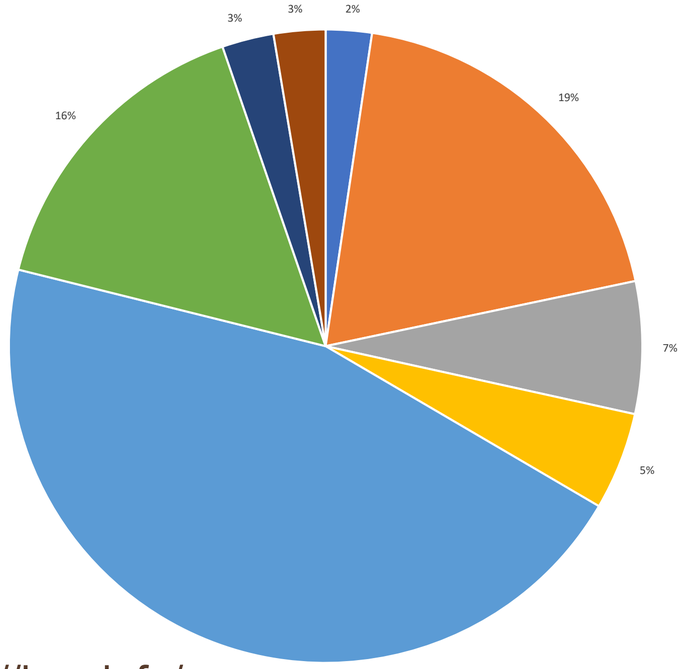
Who is the IYRP?

Coalition of 345 organizations from around the world representing pastoralists, NGOs, academia, media, private sector, multinational organizations, etc.

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Multistakeholder Support to IYRP-Oct 2023

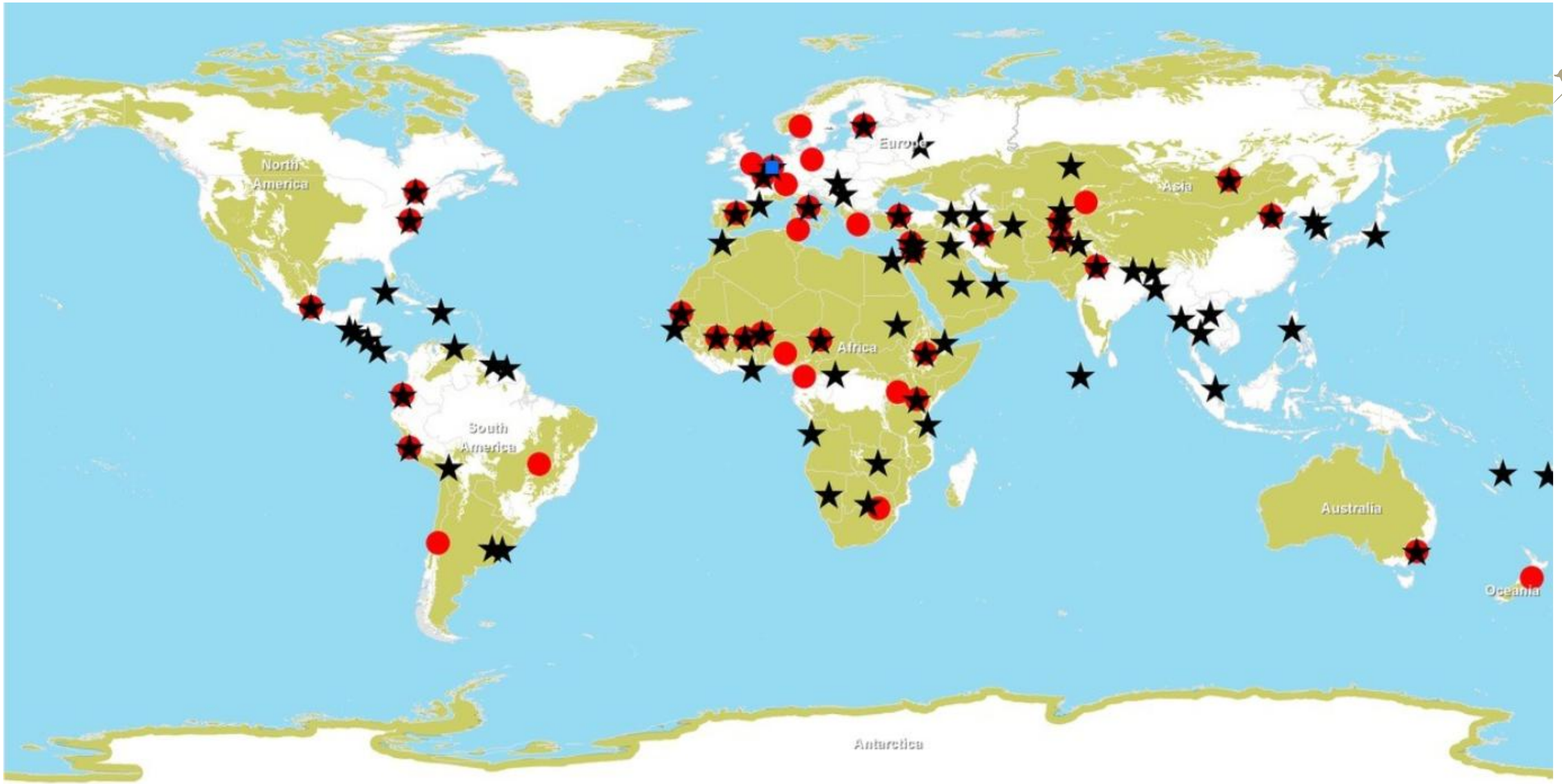


- 8 UN / multi-/international / intergovernmental organisations
- 66 Research institutes/prof. societies (any scale)
- 23 Global NGOs
- 17 Regional (supranational) NGOs
- 157 National NGOs
- 54 Pastoralist organisations (any scale)
- 9 Business / Private Sector
- 9 Local, State, Provincial or Regional Governments

https://iyrp.info/

Governments supporting Mongolia's proposal for IYRP – 24 March 2022

Government support letters to Ministry of Food, Agriculture and Light Industry, Mongolia	Governments that spoke in favor at FAO COAG and FAO Conference (2021)	Governments that co-sponsored the UNGA Resolution on IYRP, including Mongolia (15 March 2022)
1. Afghanistan	1. Argentina	1. Andorra
2. Australia	2. China	2. Angola
3. Bhutan	3. Cuba	3. Argentina
4. Burkina Faso	4. Dominican Republic	4. Armenia
5. Canada	5. Egypt	5. Azerbaijan
6. Ethiopia	6. Republic of Korea	6. Bangladesh
7. Finland	7. Mali	7. Bolivia
8. France	8. Mexico	8. Botswana
9. Hungary	9. Mongolia	9. Burkina Faso
10. India	10. Myanmar	10. Central African Republic
11. Iran	11. Peru	11. Chad
12. Italy	12. Philippines	12. China
13. Jordan	13. Saudi Arabia	13. Costa Rica
14. Kenya	14. Thailand	14. Cuba
15. Kyrgyzstan	15. Turkey	15. Djibouti
16. Russian Federation	EU on behalf of 27 Member States (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden)	16. DPR Korea
17. Serbia		17. Ecuador
18. Somalia		18. Egypt
19. Spain		19. El Salvador
20. Sudan		20. Fiji
21. Uganda		21. Ghana
22. USA (USDA letter to Society for Range Management)		22. Guatemala
		23. Guyana
		24. India
		25. Iraq
		26. Japan



IYRP 2026 INTERNATIONAL YEAR OF RANGELANDS AND PASTORALISTS

By 15 March 2022 - the day when UNGA designated 2026 as the IYRP - a total of 102 governments and 303 pastoralist associations, NGOs, CSOs, research and academic institutes, and multilateral organizations had formally supported the IYRP (https://www.iyrp.info).

Sources:
Source1: Terrestrial ecoregions of the world. https://globil-panda.opendata.arcgis.com/datasets/wwf-priority-35-ecoregions?geometry=-172.266%2C-86.819%2C172.266%2C89.233.
Source2: Data_and_Maps_for_ArcGIS2016_155257, ESRI (Environmental Systems Research Institute), https://www.esri.com/en-us/arcgis/products/index

Legend

- Support given by European Union
- Support given by national government
- Support given by at least one organisation with headquarters in cou
- Country boundary
- Global rangeland

IYRP INTERNATIONAL YEAR OF RANGELANDS AND PASTORALISTS

Why an IYRP?

Activities **up to & during**
IYRP 2026 on various themes

- Joint research & publishing
- Policy briefs / statements
- Pastoralist gatherings
- Social media campaigns
- Films / Photo exhibits
- Pastoralist innovation fairs
- Side events
- Conferences / Webinars … etc



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Structure of IYRP 2026 coalition

General IYRP e-list

~900 addresses mostly for info only

International Support Group (ISG)

~500 active partners, Friends of IYRP, including GCG members & 3 co-chairs

Global Coordinating Group (GCG)

~50 members (ISG co-chairs, Comms + WG coordinators, RISG chairs & reps from key supporting partners: FAO, Govt of Mongolia, ILRI, IUCN, UNEP, WAMIP)

Global Communications Team

10 Working Groups:

1. Afforestation
2. Biodiversity
3. Climate Change
4. Commons
5. Gender
6. Land Degradation Neutrality
7. Mountains
8. Pastoral economy
9. Water
10. Youth

11 Regional IYRP Support Groups (RISGs)

Africa
- South Eats Africa
- North África & Middle East
- West & Central Africa

Asia
- Central Asia & Mongolia
- East Asia
- South Asia

America
- North America
- South America

Australia

Ártic Region

Europe

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10 Working Groups:

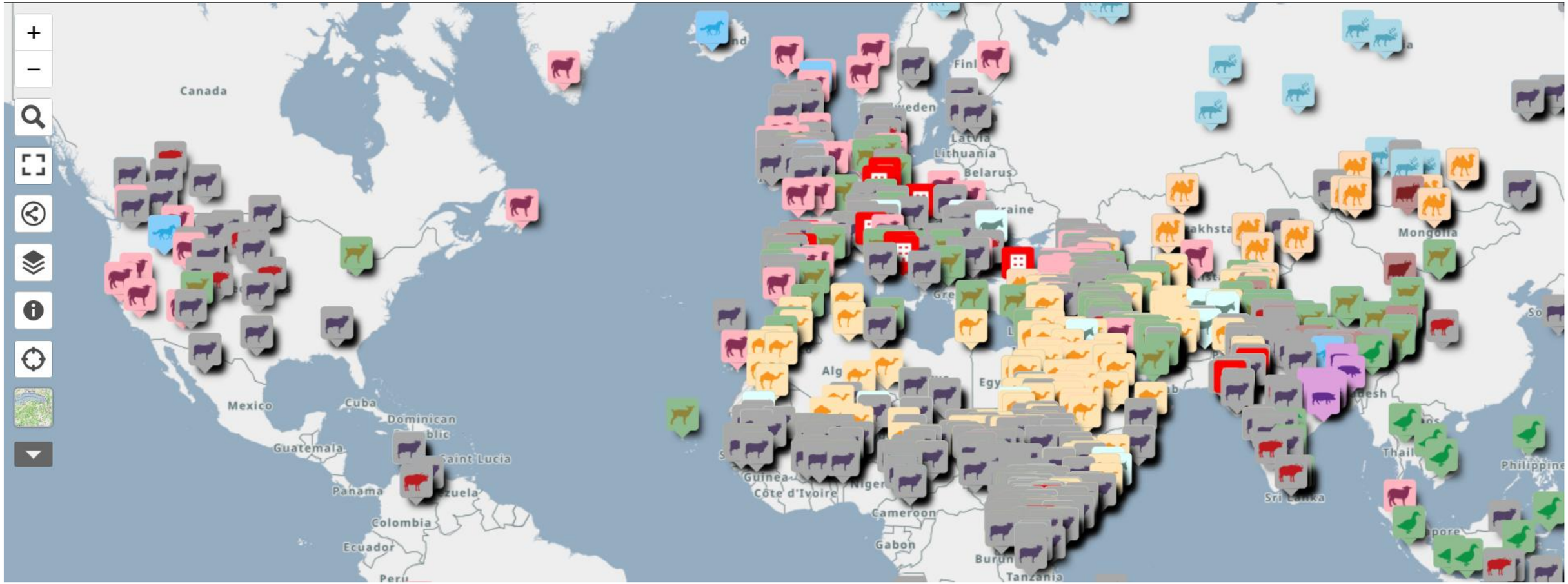
- **Afforestation**
- **Biodiversity**
- **Commons**
- **Climate Change**
- **Gender**
- **Land Degradation Neutrality (LDN)**
- **Mountains**
- **Pastoral economy**
- **Water**
- **Youth**
- **Wool**

- All Working Groups ➡ concept note, webpage: **www.IYRP.info**
- Gender Working Group ➡ sub-working Group on films

2 lists of Films

❑ On camelids (IYC 2024) Tropentage Vienna 10-13 September 2024

❑ On Pastoralism & Gender, and Pastoralism general (National and International fairs & festivals)



Inter-active Pastoralism Map

information on 800+ groups of pastoralists worldwide

https://www.pastoralpeoples.org/pastoralist-map/

Group of pastoralists

- Picture,
- Description
- Bibliography

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Herding knowledge versus Animal Science

Ilse Köhler, 2022, Hoofprints on the Land, Chelsea Green

	Herding Knowledge	Animal Science
Focus	The whole herd, from a long-term **intergenerational perspective**	**Individual animal** and its performance during his life time
Content	**Animals** ae managed as **part of the environment** taking advantage of its variability	**Animals seen in isolation** from natural and social environment, and kept in controlled and uniform environment
Goal	Keeping animal numbers **in balance with availability of forage**, never exceeding for long	Maximising individual performance **without concern for where and how** the feed is produced
Method	Letting animals **walk to their feed**, so they can compose their own seasonal menus based on local resources	**Maximising** performance and efficiency by i**mmobilising** animals and feeding them with calculated and **standardised** rations
Value System	Respect for all life and regard for animals as partners	**Maximising profitability** and more recently, minimising the emissions of GHGs (Greenhouse gases) per unit of product
Effect	Livestock population **in tune with natural resources availability** and planetary boundaries, mimicking ecological role of wild herbivores	**Exponential growth** of the global livestock population, **at the expenses of tropical forests and natural grasslands**

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Official launching of IYRP in Valencia- Spain September 2023



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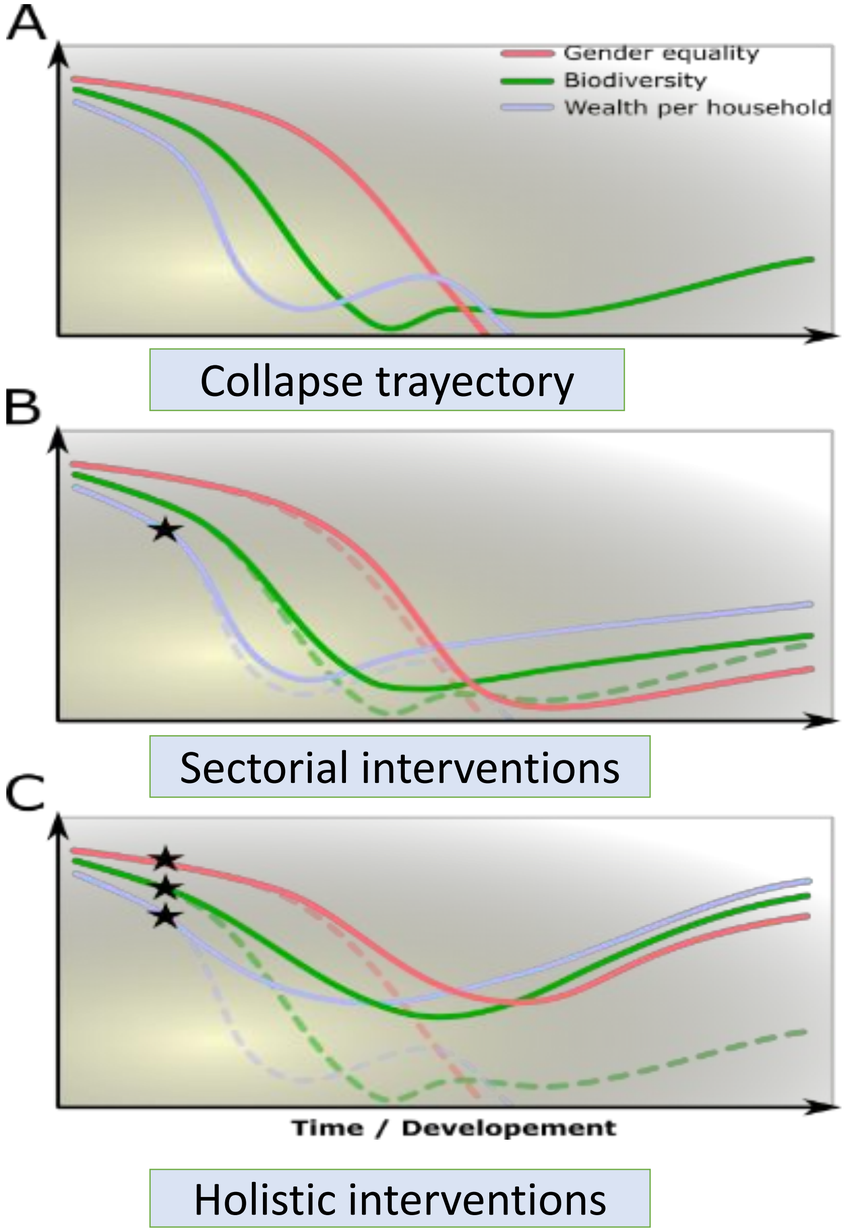
Francesca Pasetti *fpasettib@gmail.com*
Focal Point Spain Nomination Transhumance UNESCO ICH
Co-chair RISG Europe (Regional IYRP Support Group)
International Project Manager - Fundación Trashumancia y naturaleza

Scientific consortium led by the University of Helsinki:
Pablo Manzano et alii…*One Earth* Volume 4 Issue 5 Pages 651-665 (May 2021)
DOI: 10.1016/j.oneear.2021.04.012

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Global Integrative Pastoralism Project (GIPP)

- Establish **links between gender equality, environmental and economic** outcomes of pastoralism
- Identify **drivers of biodiversity loss** across disciplines
- Analyse **causes of collapse in pastoralist systems**
- **Develop policies** including the three aspects: Gender equality, Biodiversity and Economy



Collapse trayectory

Sectorial interventions

Holistic interventions

Purpose of regional action plans

1. To **create awareness** and help coordinate national activities across the region
2. To **spearhead regional/multi-country activities**
3. To **contribute to global activities**
4. To **encourage government involvement** and financial support.

National action planning. Countries to establish a multi-stakeholder National Support Group to design, execute and implement actions before and during 2026 to celebrate the IYRP.

Suggested content of regional action plans

Chapter	Brief description	Notes
Executive summary	Highlight of main points and conclusions	
Background and preamble	The context of the regional action plans, such as number and type of supporting organizations, list of products/activities already finalized by the Regional IYRP Support Group (RISG) or individual partners in support of the IYRP, etc.	
Goals and objectives	a) To increase awareness and recognition of the importance of rangelands and pastoralists to environmental, social, cultural and economic goals; and b) To increase understanding and knowledge of healthy rangelands and sustainable pastoralism	Should be the same for all regional plans and correspond to the Global Action Plan
Current status of rangelands and pastoralists (R&P)	Brief description of: a) state of knowledge of R&P and the knowledge gaps in the region b) how R&P are perceived in the region (both by the public and by pastoralists themselves)	This chapter should use as a baseline the papers prepared for the Joint IGC/IRC 2021 and could include key maps, word clouds and other graphics.
Thematic priorities for the region	How each of the 12 monthly themes will be adapted to the region: what are the specific sub-themes or areas of regional focus, e.g. if the main theme is gender, then what specific issue will become the focus of a) filling knowledge gaps and b) raising awareness?	
Regional-level activities	Specific activities to be spearheaded at regional level: ➢ Activities in the preparatory phase (2021–2025) ➢ Activities to be done during 2026 List of specific activities and their expected costs and/or resources to be identified.	If possible at this early stage, each activity should also have one or more lead institution identified.
Support to national-level activities	How the RISG expects to support and collaborate with National Committees	
Support to global-level activities	How the RISG expects to contribute to global level: what resources and funds can partners in the region contribute.	
Activities that go beyond 2026	Some activities, such as research projects, may continue beyond 2026 and need to be noted. The RISG will contribute to the final evaluation of the project.	

What would we consider success?

- **FAO Rangelands Partnership Secretariat**, to continue to raise awareness for governments
- **Pastoralists are looking for platforms for pastoralists to speak and have their voice heard**, at national, regional and global levels
- Resolutions taken by UN Entities in support of rangelands and pastoralism, including UNFCCC and the Post-2030 SDGs
- **Global data base of rangelands and pastoralists**
- **Changes in national, regional, global policies** promoting the protection and sustainability of rangelands and pastoralists, fair and equitable benefits and upliftment
- A **fully funded and representative global gathering of pastoralists in 2026**
- **More projects and programs dedicated to rangelands and pastoralists through global funds** such as GEF, GCF, LDN, VCM – and growing portfolio of rangeland friendly certified products

How can more pastoralist organisations become involved?

Send a letter of support for the IYRP: organisations that express support become members of the ISG and are included on the website as Friends of IYRP (https://www.iyrp.info/friends-of-iyrp**).**

Access resources on the IYRP website (www.iyrp.info) for news about IYRP-related activities and to hear the voices of pastoralists worldwide, including short videos and photos. Further films, photos and logos of your organisations are welcome!

Join one of the eleven Regional IYRP Support Groups (RISGs), which are implementing activities in their region in the lead-up to and during the IYRP. Pastoralist and pastoralist-support organisations are particularly welcome to help shape the IYRP. RISGs meet virtually and occasionally meet at international events, such as the International Rangeland Conference (IRC) to be held in Australia in 2025.

Join one of the thematic Working Groups and collaborate on topics such as afforestation in rangelands, biodiversity, climate change, gender, land, pastoral economics, water and youth. For contacts, see the IYRP Working Group Update

Why is an IYRP important for pastoralists?

- **To increase respect** for the achievements of pastoralist men and women around the world in producing food and other products in challenging environments such as dry, mountainous and remote areas
- **To strengthen pastoralist organisations and networks** and make them more visible by providing a global platform to advocate for their rights and to exchange knowledge and good practices
- **To showcase pastoralists' pride in their work and culture,** also among young people, and reinforce their traditions and diversity
- **To enhance opportunities for pastoralists, including women and youth,** to generate additional income through new products and markets by increasing understanding and appreciation of what they do
- **To promote joint** research by pastoralists and scientists to **encourage innovation and adaptation** and generate data about the situation of pastoralists and rangelands, so as to support pastoralists to manage land and water and lobby for their rights
- **To influence policy and** planning to integrate pastoralists' concerns about their use of rangelands and other resources, securing livestock routes, protecting mobility, and peaceful negotiation of grazing and water access
- **To** reinforce efforts to **set up services for appropriate animal and human healthcare and education** for mobile pastoralist families.

Who is involved in the IYRP?

- **The National Support Group established by the Government of Mongolia with members from civil society organisations and the Ministries for Agriculture, Environment & Tourism, and Foreign Affairs to coordinate the preparation for and implementation of the IYRP in Mongolia**
- **The International Support Group (ISG) with 500 members worldwide from international organisations, government agencies, universities, research institutes, nature-conservation groups and civil society organisations; one third of the ISG are from pastoralist and pastoralist-support organisations, including the World Alliance of Mobile Indigenous Peoples and Pastoralists (WAMIP)**
- **The Global Coordination Group of 48 people from all global regions**
- **The FAO Pastoralist Knowledge Hub (PKH) helps pastoralists advocate for sustainable rangeland use and pastoralist-friendly policies and supports the IYRP through its communication channels and events.**

Examples of activities foreseen up to and during 2026

- **National-level events, including showcasing sustainable pastoral systems, awards and prizes, innovation fairs, video documentaries, a World Herder Day and educational materials**
- **Social media campaigns and video productions to raise awareness of producers, consumers and policymakers worldwide**
- **Pastoralist gatherings – including gatherings of women pastoralists – at national, regional and global level to share knowledge and develop joint plans to improve the lives of pastoralists**
- **Joint research by pastoralists and scientists to fill in gaps in documented knowledge and information about pastoralists and rangelands at national and regional level**
- **An international conference on pastoralists, rangelands and the Sustainable Development Goals (SDGs), bringing together environmental, social and economic aspects in an integrated vision.**

For more information, please see:
https:///www.iyrp.info
or contact iyrp2026@gmail.com

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Focus	The whole herd, from a long-term intergenerational perspective	Individual animal and its performance during his life time
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PASTINNOVA

Innovative models for sustainable future of Mediterranean pastoral systems







Athanasios Ragkos
Associate Researcher
Agricultural Economics Research Institute
ELGO-DIMITRA
Greece

PRIMA
PARTNERSHIP FOR RESEARCH AND INNOVATION IN THE MEDITERRANEAN AREA

The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation

Project Identity

- PRIMA Call 2021 Section1 Farming Systems
- Innovation Action
- 20 Partners from 12 Mediterranean countries
- 43 Supporting Organizations
- *Total requested budget 2.750.000€*
- *Project duration 1 May 2022 – 30 April 2025 (36 months)*



The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation

Overall aim and objectives

Overall aim

To deliver **innovations and sustainable business and organizational models** for profitable and resilient pastoral farms and value chains with a view to increase **smallholders' potentials for market access and value adding**, contributing to revitalizing mountain and marginal areas and fulfilling social expectations

- **SO1.** To **co-create, test and implement** technical, organizational and social **innovative models** for sustainable Mediterranean pastoral farms and transparent value chains of pastoral products in different environmental and socio-cultural contexts taking into account the practices, experience and complex interactions of actors
- **SO2.** To promote the **efficient use of local resources** at risk of abandonment or overusing and to **valorise** their economic, environmental and social attributes in order to diversify and face global challenges and promote adaptation to **climate change**
- **SO3.** To propose readily available **policies, strategies and technological tools** tailored to the needs and opportunities of actors, with a focus on fully recognizing the multisectoral role (social, economic, environmental) of pastoral systems and the inclusion of **vulnerable pastoral groups**
- **SO4.** To increase **innovation capacities** of Mediterranean pastoral actors and awareness about the contributions of pastoralism towards **inclusive and equitable** pastoral areas and rural societies

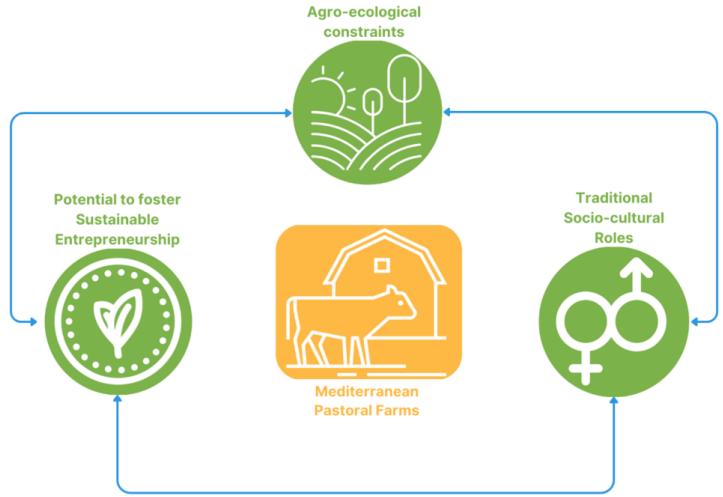
The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation

Concept - Pastoralism

A pastoral system is a complex structure emerging from interactions of raising livestock and utilizing natural resources, in which breeders share production purposes, traditions and cultural values

Extensive grazing is substantial but includes

- A gradient of **intensification** in the use of rangelands
- Diverse **species** and local **breeds**
- Livestock **movements** (sedentary, transhumance)
- Use of salaried **labour** and fixed/variable **capital** at different degrees



PASTINNOVA focuses specifically on **smallholders maintaining 'pastoral identities'**

- Sustainable use of local resources at risk of abandonment (grazing resources and ecological knowledge)
- Providing **examples of circular economy** for centuries as well as a wide array of **ES**

The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation

Concept - Pastoralism

Pastoral systems provide a wide range of **Ecosystem Services** and play multiple **roles** towards sustainable and inclusive development

- ***Socio-economic role***
  - Livelihoods in mountain/marginal/island areas for centuries
  - Still an important source of income and employment, even combined with other activities
- ***Environmental role***
  - Efficient use of natural resources
  - Good grazing practices in the management of grazing land; biodiversity; landscape structure; and mitigating climate change effects (GHGs)
- The ***cultural heritage*** of pastoralism characterizes territories
  - **Traditional ecological knowledge**, farm and land management
  - Customs, traditions and norms
  - **Intangible Cultural Heritage of Humanity**
  - Pastoral dairy products constitute important elements of **Mediterranean diets**

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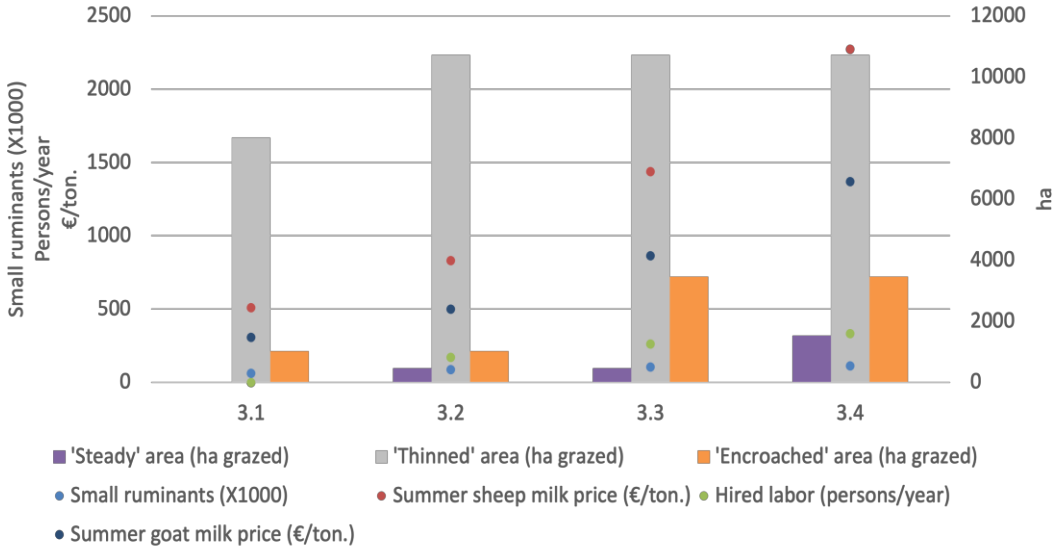
Concept
Pastoral farms face challenges regarding their sustainability

- **Reduced socioeconomic performance, access to markets and bargaining positions of pastoralists**
  - Small farm sizes
  - Low profitability
  - Low levels of farmer organization
  - Asymmetric information
  - Lower yields and productivity, inefficient practices and lack of innovations that pertain to the system

- **Alteration of land-livestock-labour configuration**
  - Modernization of pastoral farms
  - ‘Pastoral identities’ are threatened by bad sanitary conditions and excessive use of external resources
  - Less feed autonomy
  - Labour shifting from family to salaried forms - including migrant workforce
    - Rural youth is often emigrating
    - Women are assuming more strategic roles in farm entrepreneurship with a specific focus on processing and sales

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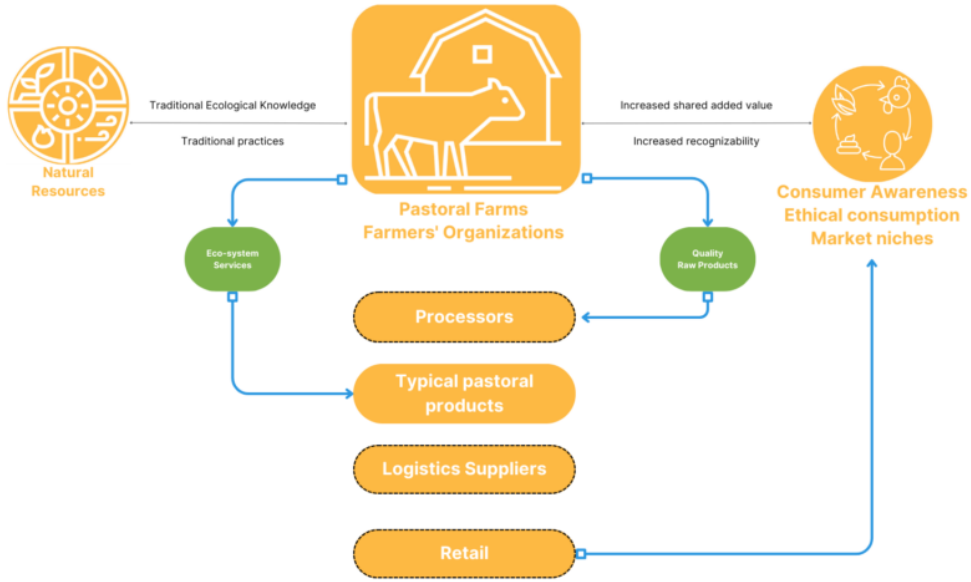
Concept
The policy framework

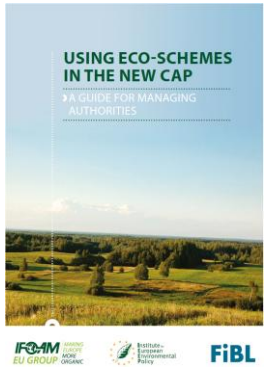


Farm-to-Fork Approach in Pastinnova

Incorporation of eco-system services in production, increases the shared added value between pastoral farmers.

*actors in dashed lines are sometimes omitted in shorter supply chains.









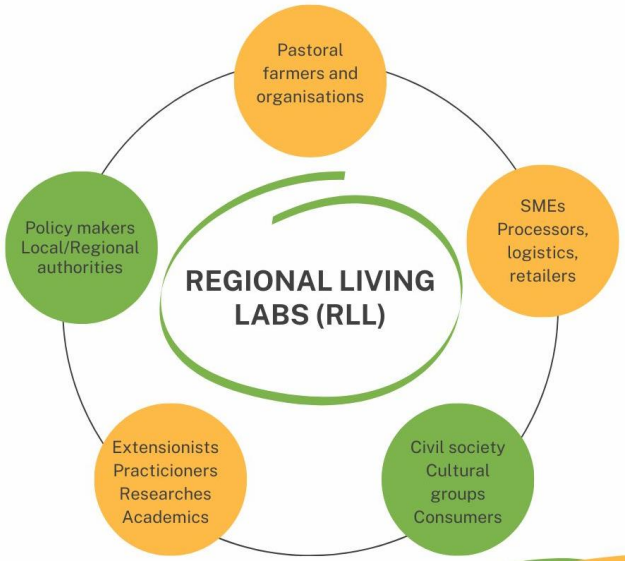
- Farm to Fork Strategy and Biodiversity Strategy of the EU for 2030
- European Green Deal
- FAO Sustainable Development Goals
- EU Circular Economy Action Plan

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How we approach pastoral systems?

Common network on “Pastoral actors and VCP”

The mission of this common network will be to *pool existing pastoral resources with different levels of maturity* and to *re-adapt, replicate (at higher TRL) and transfer* the ones with high potential across Mediterranean Regions



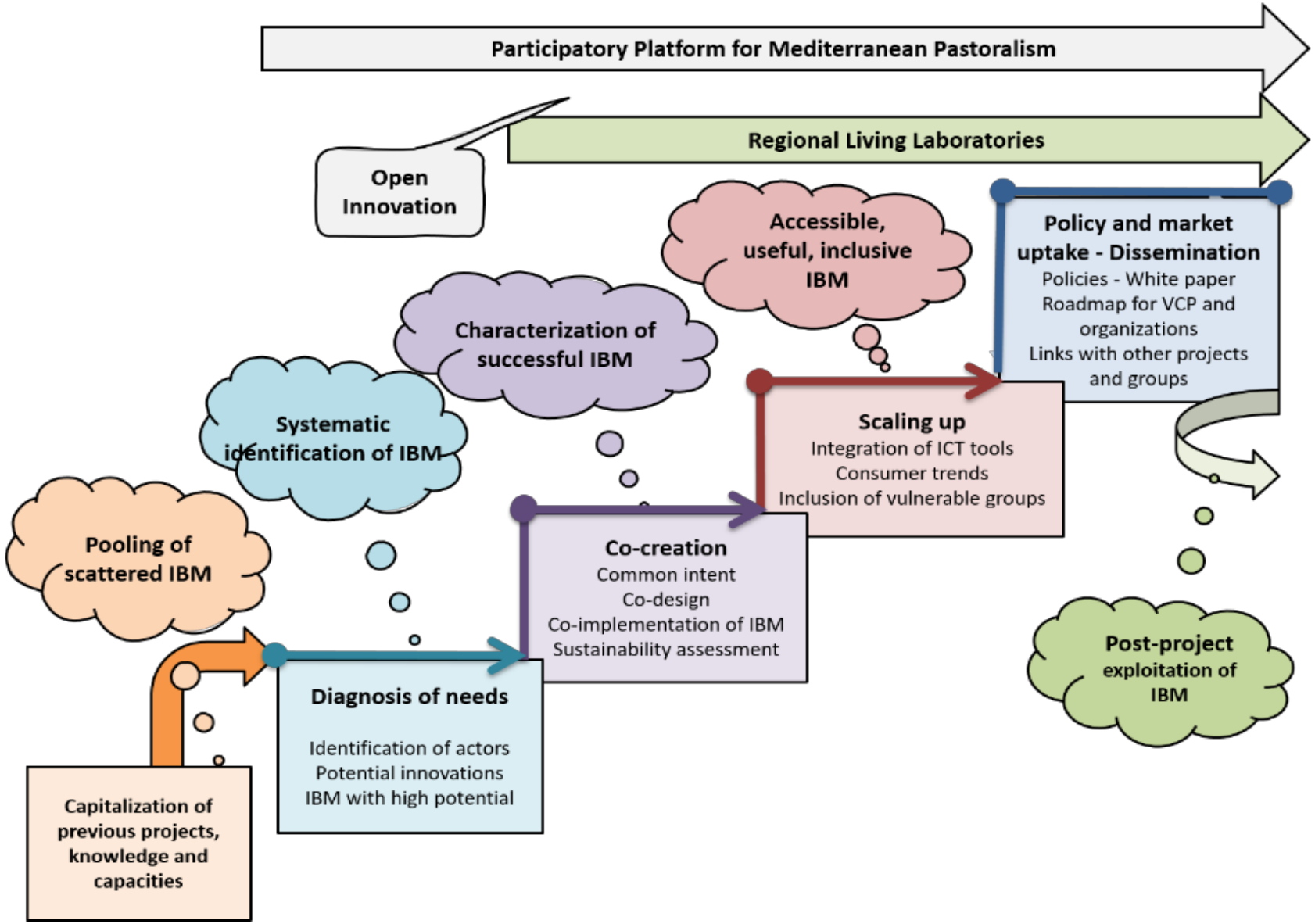
What partipation can bring to Pastinnova?



- A participatory inclusive approach **based on Living Laboratories (LLs)**
  - **Four Regional Living Labs (RLLs):** Practice-driven networks that facilitate and foster *open, collaborative innovation*, where new solutions are developed
  - Co-creation, co-design, implement, assess, characterize innovative solutions (IBM)
  - Validation of results, outputs and strategies

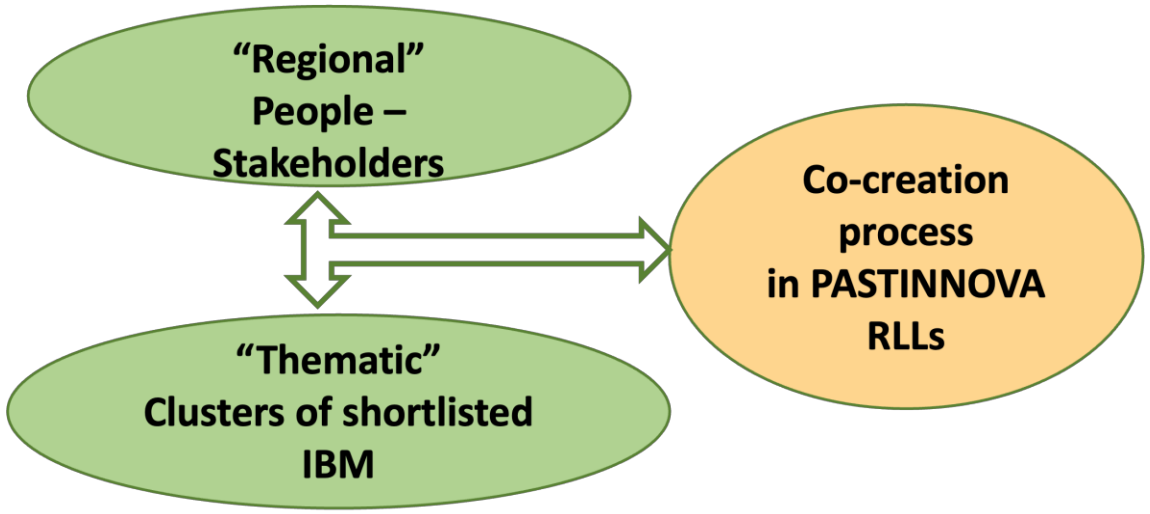
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Innovations and business models in PASTINNOVA

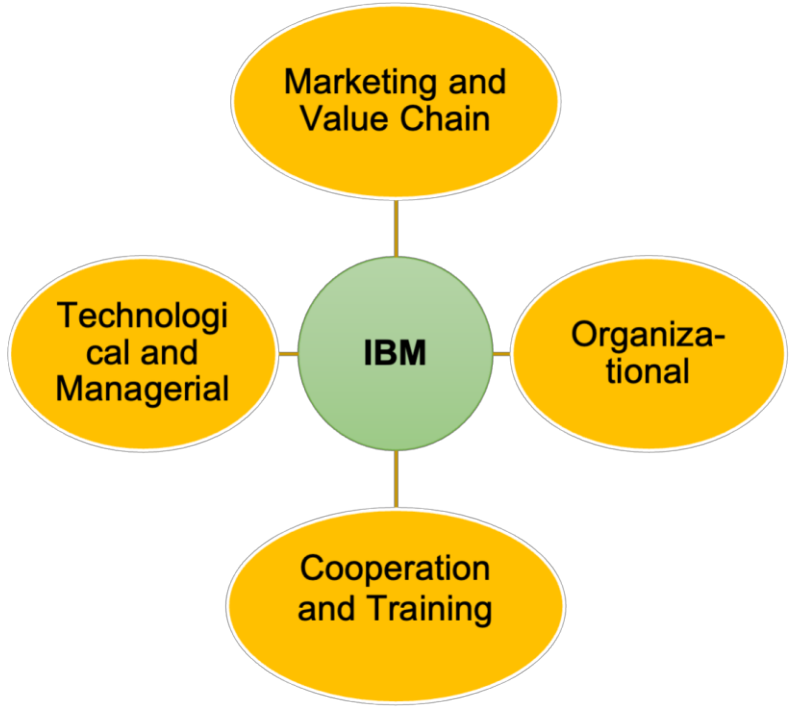


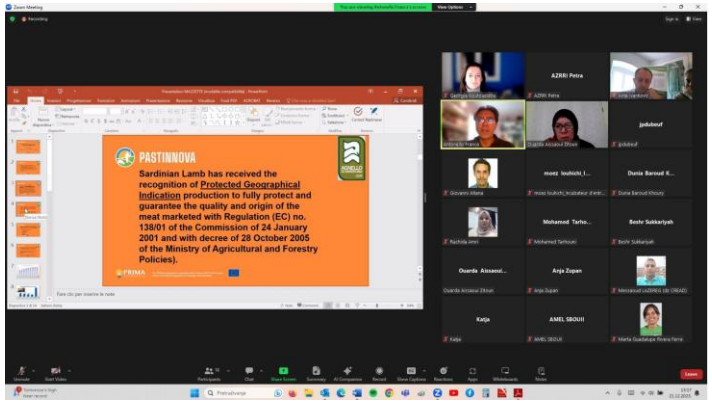
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Bridging Regional and Thematic approaches in Living Labs



- We already have ~100 IBM from all partners
- IBM were "shortlisted" by relevant partner







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Examples of IBM in PASTINNOVA

Pastoral Schools (Spain, Italy also Greece, Morocco)





Spain
Italy
Greece
Morocco
France



Local breeds gastronomy - Traditional cheese-making

Croatia



Spain



Morocco



Valorization of camel milk and hydroponic fodder

Algeria





Tunisia

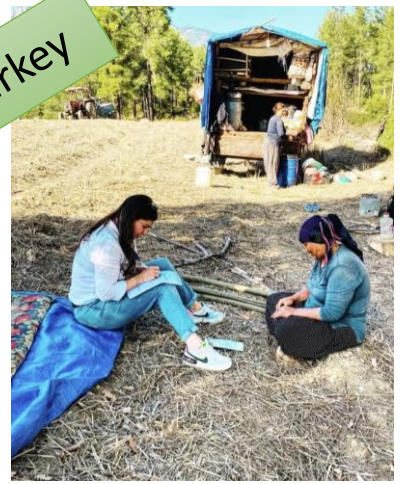


Women Association and product valorization



Lebanon

Turkey



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PASTINNOVA RLLs – Available project activities

Research and Innovation activities
Follow the thing – Analysis of value chain actors
On-site implementation and assessments of IBM (field demo)
Land use and vegetation changes
Analysis of ES provision and modular baskets
LCA and s-LCA
Environmental DEA
Social sustainability – labor creation analysis
E-platform and promotion of farms and products
Consumer research
Involvement of women and young people - Characterization of IBM for women and young people
Policy meetings - White paper and policy briefs (fact sheets)
Business plans
Eco-scheme
Empowerment for pastoral Organizations

Outreach Activities
- Thematic webinars (five)
- Local awareness events and press releases/local press
- Seminar for artisanal food
- Regional workshops (one per RLL)
- Board game
- Exchange field visits and training
- Training course on Mediterranean Pastoralism

A big pool of activities available to RLLs to upscale IBM in the Mediterranean

Where we aim? – Key exploitable results (KER)

KER	Target values	Interested audiences
2.1. ‘Modular baskets’ of ES	At least 4	Policy makers
2.2. Job creation	Increasing pastoral employment by at least 5%	Policy makers; Pastoral Organizations
2.3. LCA on pastoral products	At least 8 - including one for a local breed	Policy makers; Agribusiness
2.4. GHG emission reduction	At least 2 IBM	Policy makers
3.1. ICT platform	At least 20 Mediterranean pastoral producers	Pastoral Farmers; Research
3.2. Policy documents	One “White paper”, 12 fact-sheets, guidelines for an eco-scheme	Policy makers
4.1. Business plans	6-8	Pastoral farmers and Organizations

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Farm Economics 101

Descriptive technical and economic analysis

- Crop/Livestock demands in physical and economic units – Descriptive analysis
  - Presentation by input, by task etc
  - Permits to pinpoint the most demanding tasks and/or the most scarce inputs
  - Good for initial comparisons between crops and farms
- Calculation of financial results – Indicators of economic performance

- **Partial budgeting** - Compare losses to gains and see what happens – only in economic terms!

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2016-2020
iSAGE – Innovations for sustainable sheep and goat production in Europe
H2020 Grant Nr. 679302
www.isage.eu

iSAGE Innovation for Sustainable Sheep and Goat Production in Europe

sustainability

MDPI

Article

Alternative Approaches of Summer Milk Sales from Transhumant Sheep and Goat Farms: A Case Study from Northern Greece

Athanasios Ragkos [1,*], Alexandros Theodoridis [2] and Georgios Arsenos [2]

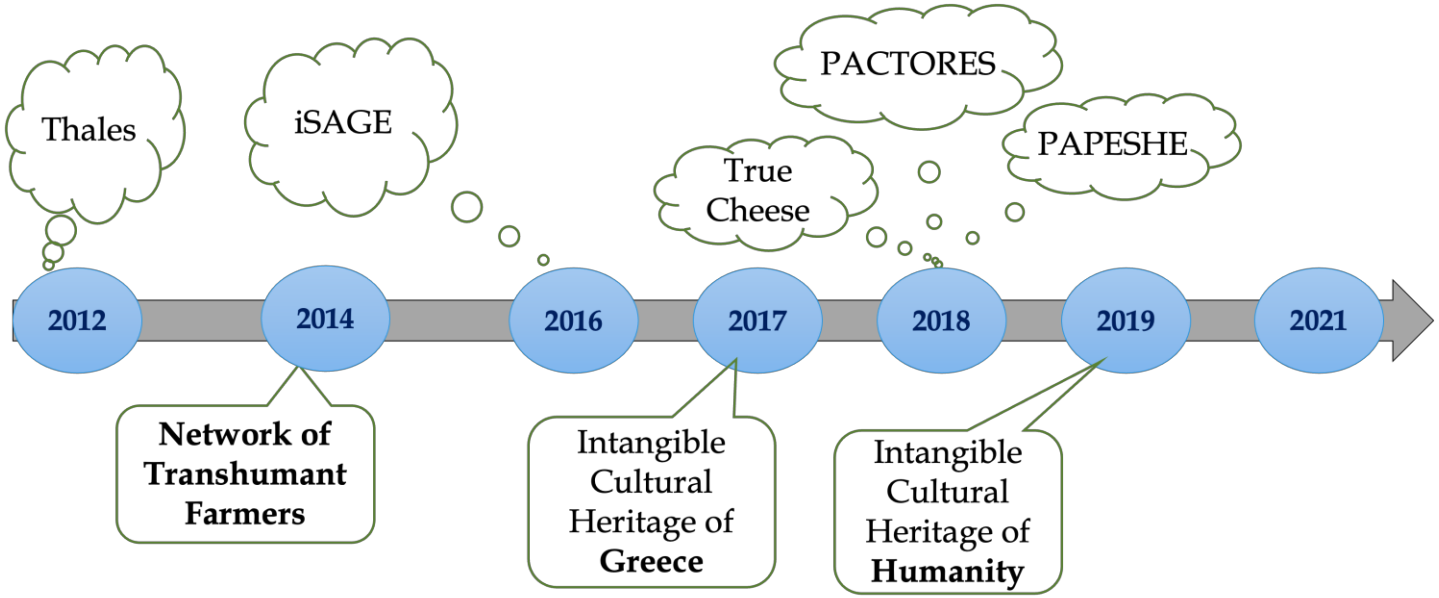
Sustainability 2019, *11*, 5642; doi:10.3390/su11205642

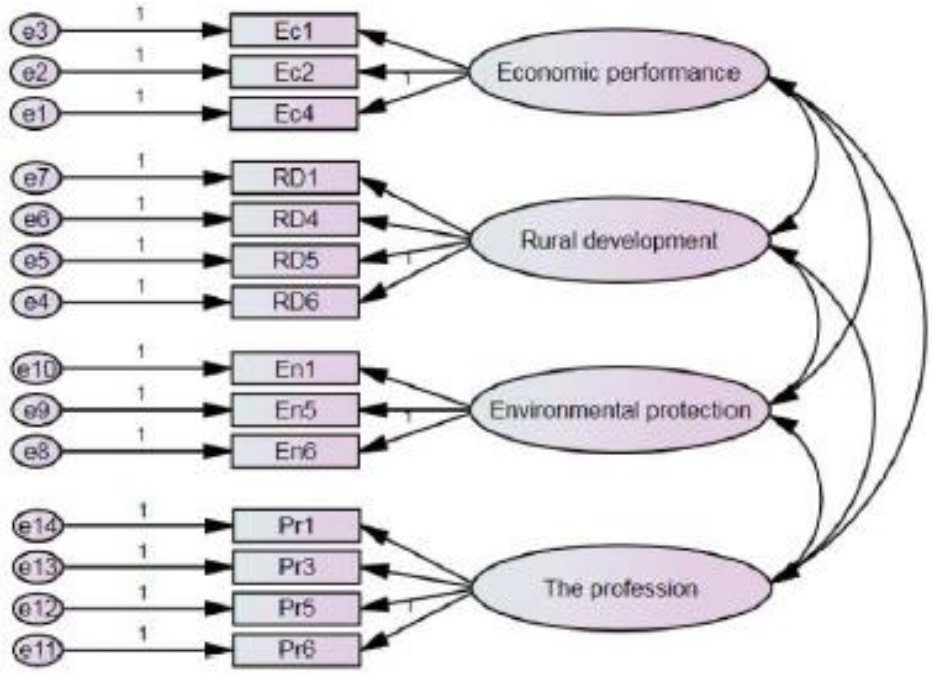
Basic questions

- How should pastoralists sell/promote their products to increase their economic performance?
- Is artisanal cheese production an effective alternative?

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Transhumance in Greece





- Traditional Ecological Knowledge
- Lack of relevant innovations
- Low productivity/High (?) quality
- Culture and way of living (or lifestyle)

Specificities
- Dairy farms
- Family mobility

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Summer milk from transhumant sheep and goat farms

• Most industries mix this milk with milk of other farms for conventional products - There are no transhumance-specific dairy products
• Consumers remain unaware of the multiple contributions of transhumance and, inversely, the system is cut off the market.

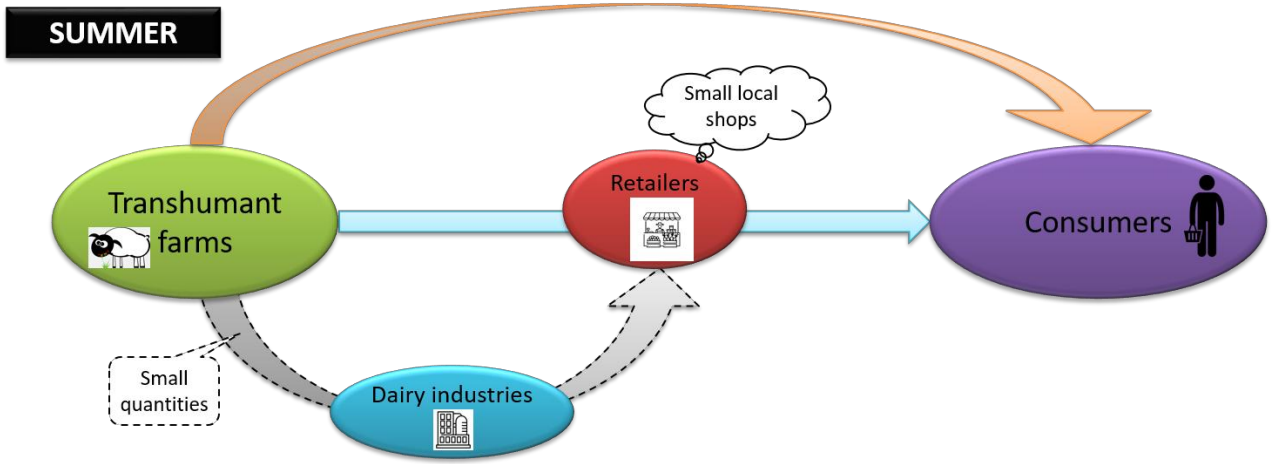
What are the consequences?

• Transhumant farmers are paid disproportionally to their quality
• Reduced economic performance (low prices and high production costs)
• The potential production of a transhumance-specific cheese constitutes an innovation for Greece
    • They are expected to have high market impact, due to their premium quality
    • This way, producers will profit from prices

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Approach 1 ‘Peasant’

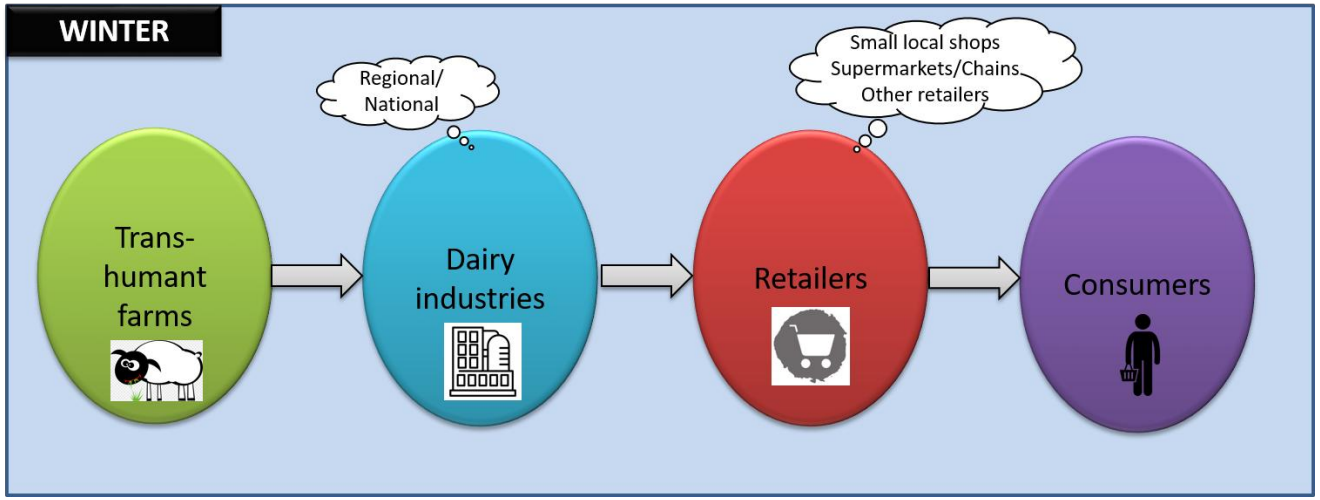
The farm is situated in a mountainous village and in summer animals graze on top of the mountain. The farmer produces local cheeses (e.g. galotyri) using traditional know-how and sells directly to consumers









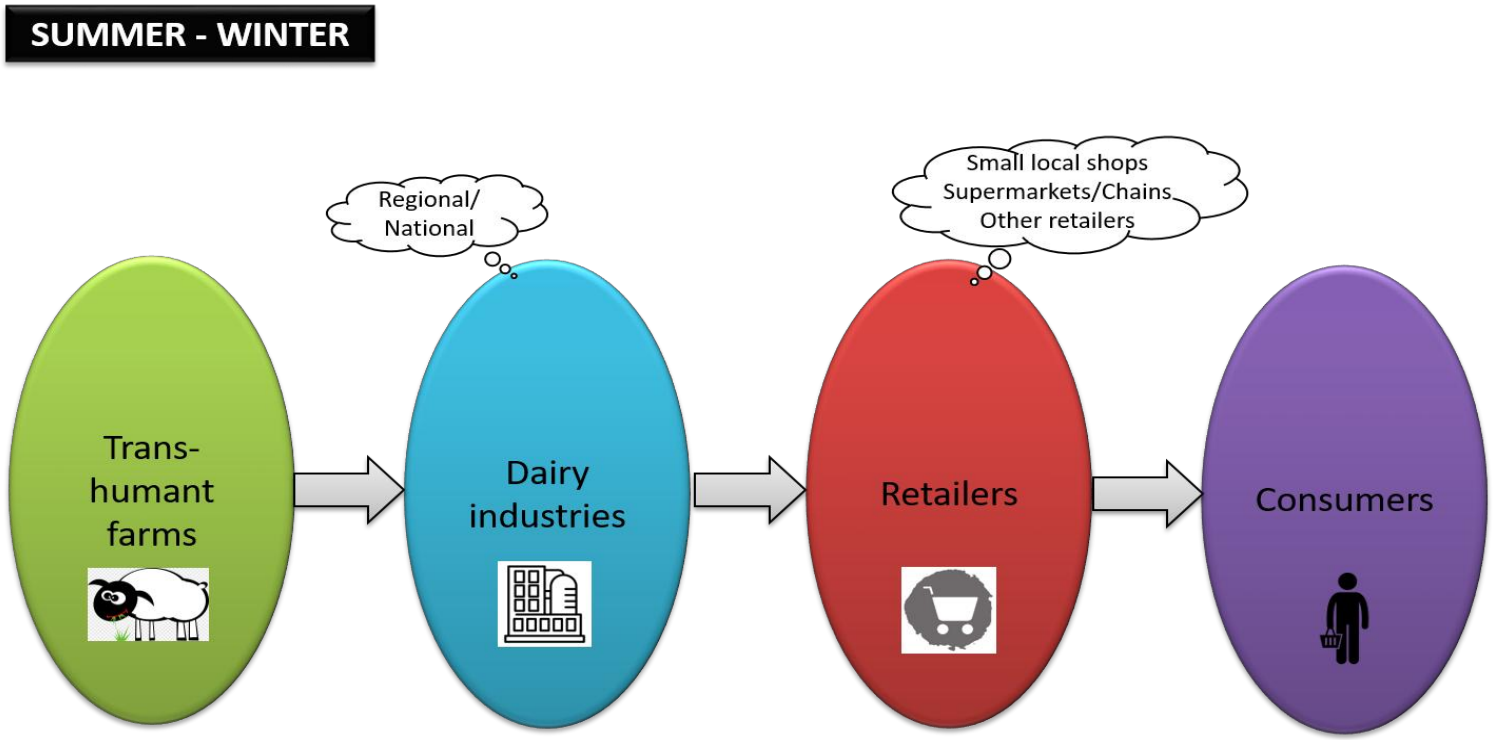


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Approach 2 ‘Conventional’

The study farm sells milk to the same industry throughout the year (winter and summer). The farm moves to Kalarites in summer

- Low milk yields but very high quality, which is not remunerated by the industry



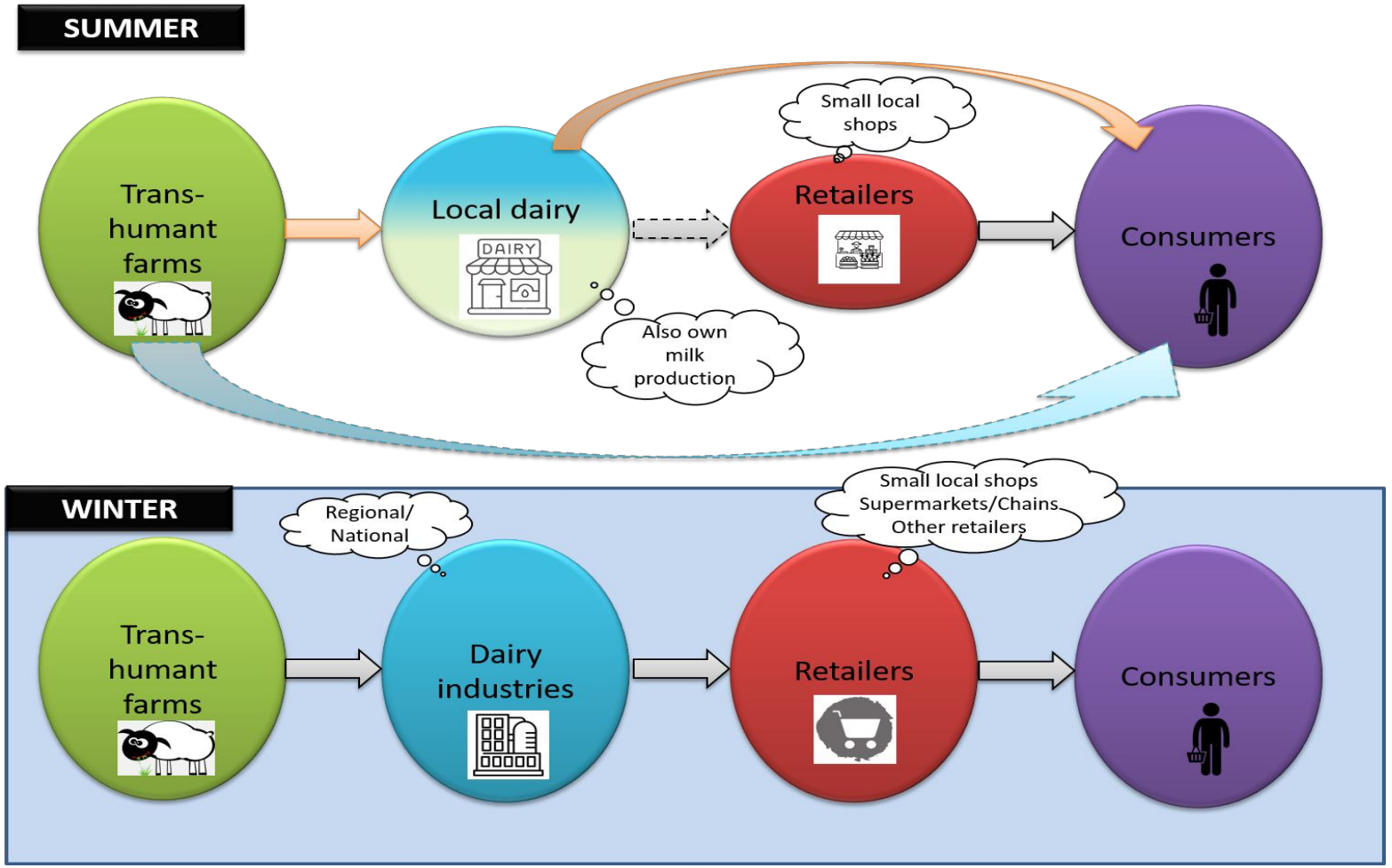




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Approach 3 ‘Artisanal’

The farm sells milk to a small dairy in the highlands which operates only in summer. Cheese is produced solely from milk of transhumant flocks.









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Farm-level economic effects – Basic indicators

	Farm 1 'Peasant'	Farm 2 'Conventional'	Farm 3 'Territorial'
1. Flock size (Ewes)	660	570	600
3. Cultivated land (ha/ewe)	0,003	0,005	0,032
3. Milk yield (kg/ewe/year)	**89,4**	**52,6**	**93,7**
4. Milk sold to industries (kg/year)	52000	29500	56000
5. Milk transformed to cheese (kg/year)	**7000**	500	200
6. Milk price			
Winter (€/kg)	1,02	0,95	1,00
Summer (€/kg)	1,02	0,90	1,00
7. Labor requirements (h/ewe-dam)	9,8	8,3	6,2
Family (h/ewe-dam)	3,1	4,5	4,5
Hired (h/ewe-dam)	6,7	3,8	1,7

- All farms rely exclusively on grazing during summer
- 'Peasant' and 'Conventional' buy almost all feedstuff from markets, while 'Territorial' produces lucerne and maize and only buys grains from markets.

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Gross revenues

	Farm 1 'Peasant'			Farm 2 'Conventional'			Farm 3 'Territorial'		
	Total (€)	€/ewe	%	Total (€)	€/ewe	%	Total (€)	€/ewe	%
Milk	53040	80,4	45,7	27800	48,8	41,1	56000	98,2	48,6
Cheese	10500	15,9	9,0	600	1,1	0,9	350	0,6	0,3
Meat	28712,5	43,5	24,7	21766,8	38,2	32,2	32460	56,9	28,2
Subsidies	23800	36,1	20,5	17500	30,7	25,9	26500	46,5	23,0
TOTAL	**116052,5**	**175,8**	**100,0**	**67666,8**	**118,7**	**100,0**	**115310**	**202,3**	**100,0**

- Subsidies stand for a substantial part of farm income.
- Only for 'Peasant' milk and dairy products sales stand for more than 50% of the total farm income (54,7%), while for this farm the contribution of subsidies is the lowest.
- For 'Conventional' the contribution of milk is the lowest along with the highest dependence on subsidies (25,9%).
- 'Territorial' achieves the highest gross revenue per ewe (202,3€/ewe).

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Production costs

Expenses	Farm 1 'Peasant'			Farm 2 'Conventional'			Farm 3 'Territorial'		
	Total (€)	€/ewe	%	Total (€)	€/ewe	%	Total (€)	€/ewe	%
1. Land rent	**3800**	**5,8**	**4,5**	**2600**	**4,6**	**3,8**	**3000**	**5,0**	**4,5**
2. Labour	**15810**	**24,0**	**18,6**	**13692**	**24,0**	**20,1**	**11160**	**18,6**	**16,7**
3. Capital (3a+3b)	**65430**	**99,1**	**76,9**	**51781**	**90,8**	**76,1**	**52763**	**87,9**	**78,8**
3a. Variable capital	*64660*	*98,0*	*76,0*	*43601*	*76,5*	*64,1*	*44980*	*75,0*	*67,2*
Purchased feedstuff	61750	93,6	72,6	37421	65,7	55,0	26600	44,3	39,7
Animal production	2700	4,1	3,2	5180	9,1	7,6	8580	14,3	12,8
Crop production	210	0,3	0,2	1000	1,8	1,5	9800	16,3	14,6
3b. Fixed capital	*770*	*1,2*	*0,9*	*8180*	*14,4*	*12,0*	*7783*	*13,0*	*11,6*
TOTAL (1+2+3)	**85040**	**128,8**	**100,0**	**68073**	**119,4**	**100,0**	**66923**	**111,5**	**100,0**

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Financial results excluding subsidies

	Farm 1 'Peasant'		Farm 2 'Conventional'		Farm 3 'Territorial'	
	Total (€)	€/ewe	Total (€)	€/ewe	Total (€)	€/ewe
Gross revenue[1]	92252,5	139,8	50166,8	88,0	88810,0	148,0
Total expenses	85040,0	128,8	68073,0	119,4	66923,0	111,5
Net profit	7212,5	10,9	-17906,2	-31,4	21887,0	36,5
Labor wage (€/h)	3,6		-0,9		8,9	
Farm income	27592,5	41,8	1365,8	2,4	38897,0	64,8
Gross margin	27592,5	41,8	6565,8	11,5	43830,0	73,1

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Basic observations

- The choice of one of the three approaches and the integration to a specific SC is not easy
  - **Endogenous factors** (farm organization, use of inputs, requirements in new investments, existing know-how and capabilities of human resources etc)
  - **Exogenous factors** (policy incentives, fiscal and financial environment, existing infrastructure, availability of supporting and advisory services etc)

- Important trade-offs between the choice of one approach and the overall operation of farms

- The 'Territorial' approach is not just a compromise between the two other SCs, but rather shows how a diversification in milk sales can be an effective way to emphasize on optimizing the primary production side.
  - It is important to advance in the sector without having to abolish its *"agro-pastoral character"*

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Social – Economic – Environmental implications



Basic question

- How the system will respond to changes in market conditions, capital availability and hired labor utilization?

- Are changes in such factors reflected in land mosaics?

Sub-area 1 ("Stable") → Vegetation has remained **stable**
Sub-area 2 ("Thinned") → Vegetation have become **sparser** under high grazing pressures from transhumant flocks.
Sub-area 3 ("Encroached") → Encroachment due to under-grazing

Regional Environmental Change (2020) 20:13
https://doi.org/10.1007/s10113-020-01598-6

ORIGINAL ARTICLE

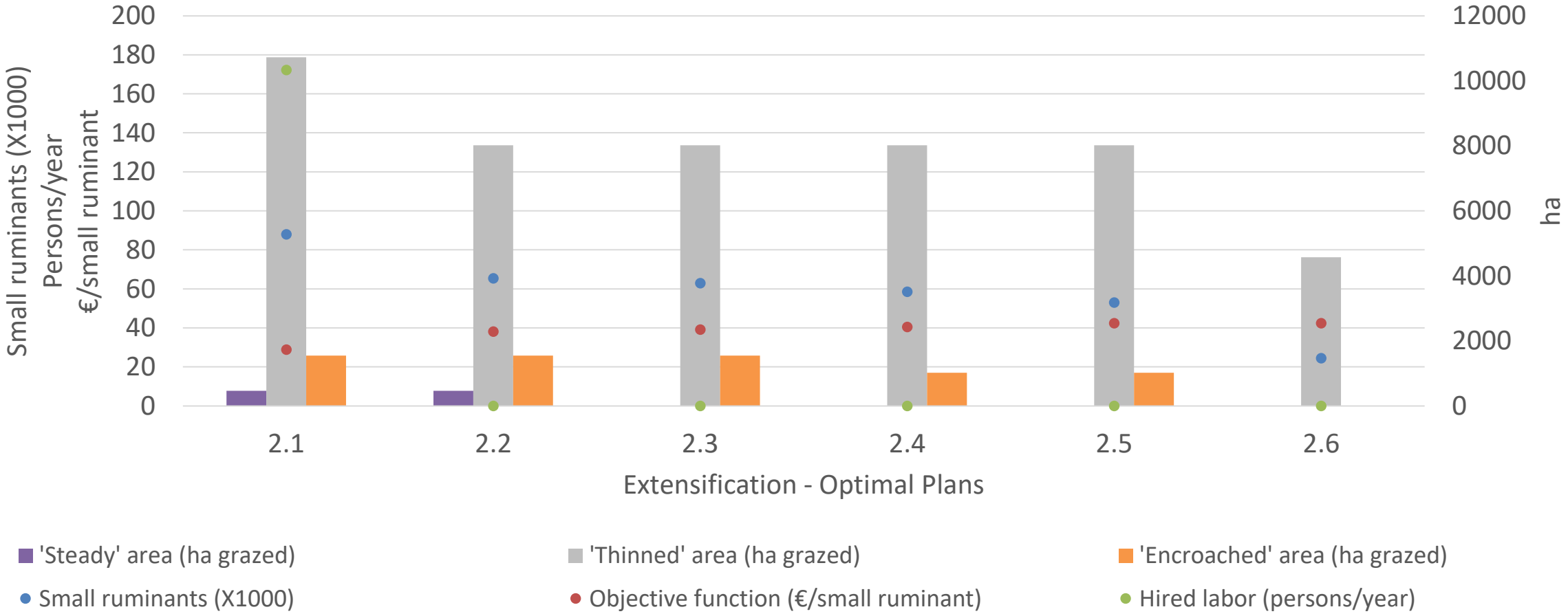
Scenarios of optimal organization of sheep and goat transhumance

Athanasios Ragkos[1] · Stavriani Koutsou[2] · Maria Karatassiou[3] · Zoi M. Parissi[3]

Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης

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Parametric programming results – Less capital available



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Parametric programming results – Premium pricing



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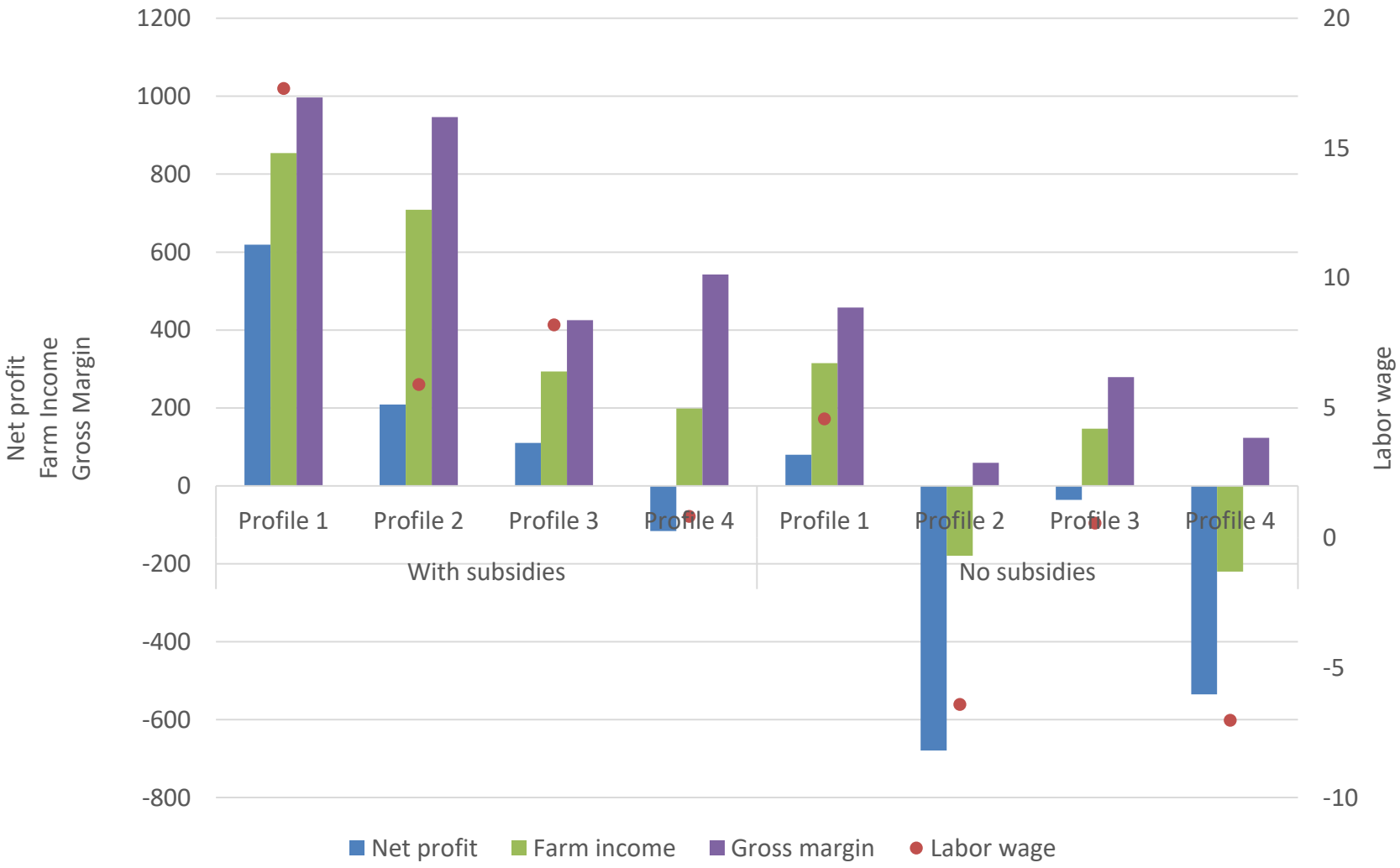
Pastoral **Actor**s, **E**cosystem Services, and **S**ociety as Key Elements of Mediterranean Agro-Pastoral Systems

(One of the) Basic questions

- Is policy support required to maintain mountain areas alive?

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Spain – Catalonia (Pyrenees)



Profile 1. Diversification towards tertiary sector

- New commercialization channels
- External employees.
- Mainly cow and horse cattle.
- High mechanization.
- Participants in organizations.
- **Low traditional knowledge.**

Profile 2. Family farms

- Middle size farms.
- High presence of familiar work.
- There are no external employees.
- Mainly sheep and goat herds.
- No participation in organizations.
- Low mechanization.
- **High traditional knowledge**.

Profile 3. Intensified farmers

- Biggest farms.
- High presence of familiar work but also external employees.
- Diversification of marketing channels.
- Participants in organizations.
- High mechanization.
- Mainly sheep and goal herds.
- Dependency of external inputs.

Profile 4. Diversification – Other activities

- Smallest farms.
- There are no external workers.
- They are working in an additional activity
- Low mechanization.
- No participation in organizations.
- **High traditional knowledge.**
- **Self-sufficient and extensive management**

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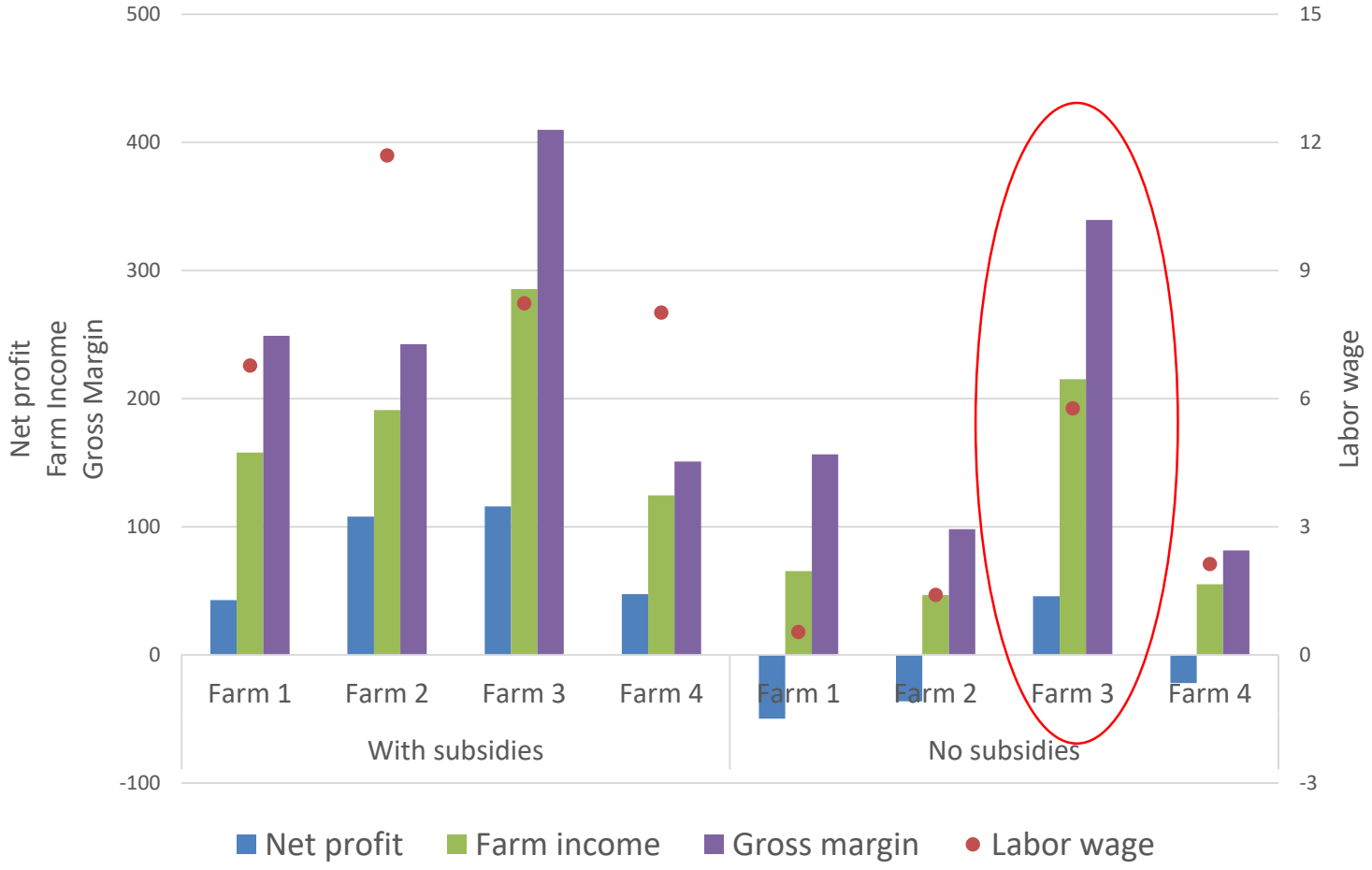
Greece – Peloponnese (Mount Ziria)



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Italy – Sardinia

Main financial results



- **Farm 1** specializes on sheep production with various products (milk, cheese and meat)
- **Farm 2** family-run pluriactive, rearing pigs and oriented on meat production relatively more than other types
- **Farm 3** vertically organized, transforming all milk on-farm and selling cheese directly to consumers
- **Farm 4** large sheep pastoral farm with considerable pig production and a higher dependence on feedstuff from markets

- All farms graze through the year – following weather conditions – and supplement animals with concentrates in different degrees.
- They produce some of (or all) the forage and some of the concentrates they provide to animals.

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Interreg - IPA CBC
Greece - Republic of North Macedonia
PAPESHE

PAPESHE

PAPESHE

Protection of Autochthonous population of Pelagonia Sheep breed in the cross-border area

Basic questions

- Is it profitable to rear local breeds? Differences between systems and countries?
- Does the public care about the local breed?

Papeshe.vet.auth.gr

www.facebook.com/Papesheproject

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Attributes and levels

Attributes	Brief description	Levels	
		Greece	North Macedonia
Traditional production	Prevalence of production patterns which pertain to traditional practices in the CBA	1. Pelagonia sheep will be kept in facilities with sufficient space 2. Pelagonia sheep will be kept in facilities with sufficient space and will also be reared without antibiotics	
Rural development and employment	Provision of employment to rural families	1. 50 families 2. 140 families 3. 300 families 4. 500 families	
Protection of pastures and of the environment	More acreage of pastoral land grazed in a sustainable way by Pelagonia sheep	1. 500 ha[1] 2. 1.500 ha 3. 3.000ha	
Culture	Undertaking various actions to promote the cultural role of Pelagonia sheep for the benefit of the CBA	1. Production of a **certified specific product** from Pelagonia sheep (eg cheese or meat) 2. Organizing an annual awareness and information **event** in Florina 3. Establishing a **Museum** on the promotion of Pelagonia sheep in Florina	1. Production of a **certified specific product** from Pelagonia sheep (eg cheese or meat) 2. Organizing an annual awareness and information event in **Bitola** 3. Establishing a **Museum** on the promotion of Pelagonia sheep in Bitola
Payment amount	Annual payment to support the Pelagonia production system	10€, 30€, 50€, 80€	200MKD, 600MKD, 1000MKD, 1500MKD (3,5€, 10€, 16,5€, 25€)

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Choice experiment – Public preferences in Greece



	Attributes/Levels					
	Traditional production	Employment (€/additional family)	Rangelands (€/additional stremma)	Culture		
				Local product	Awareness event	Museum
MWTP (€)	12,82	0,05	-0,000062	-6,96	-19,37	-28,36
Standard deviation	41,17	0,14	0,000196	22,15	61,62	90,19

	Attributes/Levels					
	Traditional production	Employment (€/additional family)	Rangelands (€/additional stremma)	Culture		
				Local product	Awareness event	Museum
Thessaloniki						
MWTP (€)	11,94	0,04	-0,000017	-14,26	-25,36	-27,39
Standard deviation	39,73	0,14	0,000057	47,44	84,38	91,13
Florina						
MWTP (€)	13,12	0,05	-0,000100	1,06	-11,92	-27,54
Standard deviation	43,45	0,15	0,000347	3,52	39,45	91,20

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Choice experiment – Public preferences in North Macedonia



	Attributes/Levels					
	Traditional production	Employment (MKD/additional family)	Rangelands (MKD/additional hectare)	Culture		
				Local product	Awareness event	Museum
MWTP (MKD)	-327,80**	2,43***	-0,51	-354,50**	-908,00***	458,96***
Standard error	135,36	0,357	0,997	159,858	351,603	160,41

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Results (1)

Table 1. Technical and economic indicators of the sampled “Pelagonia” farms: average

	Greek farms		Macedonian farms
	Semi-extensive (SEG)	Semi-intensive (SIG)	(aMF)
Average size	270	350	598
Crop production (ha/ewe)	0.007	0.006	0.010
Pasture area (ha/ewe)	0.020	0*	communal pasture areas
Milk yield (kg/ewe)	74.1	130.0	122.4
Lamb meat yield (live weight - kg/ewe)	15.2	17.6	19.8
Ewe/ram meat yield (live weight - kg/ewe)	6.7	3.1	6.7
Mean milk price (€/kg)	0.75	0.77	0.58
Mean lamb meat price (live weight - €/kg)	2.00	2.10	2.24
Labour requirements (h/ewe)	20.7	15.0	15.5
Family (h/ewe)	13.0	15.0	6.3
Hired (h/ewe)	7.8	0.0	9.2

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Results (4)

- More pastures – throughout the year
- Less purchased feedstuff
- Cheaper (family) labor

Table 4. Financial results of the sampled Greek Pelagonia farms: average

	Greek farms				Macedonian farms (aMF)	
	Semi-extensive (SEG)		Semi-intensive (SIG)			
	With Subsidies	Without Subsidies	With Subsidies	Without Subsidies	With Subsidies	Without Subsidies
Total expenses (€/ewe)	149.0	149.0	209.1	209.1	96.1	96.1
Net profit/loss (€/ewe)	50.5	-59.8	-25.2	-69.0	52.3	43.7
Return to labor (€/h)	5.8	0.5	1.3	-1.6	4.8	4.2
Gross margin (€/ewe)	156.2	45.9	64.7	20.9	101.0	92.4
Farm income (€/ewe)	147.4	37.1	43.5	-0.3	84.9	76.3

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agronomy

MDPI

Article

Evaluation of the Contribution of Pastures on the Economic Sustainability of Small Ruminant Farms in a Typical Greek Area

Artemis Papadopoulou [1], Athanasios Ragkos [2,*], Alexandros Theodoridis [3], Dimitrios Skordos [2], Zoi Parissi [1] and Eleni Abraham [1]

Agronomy **2021**, *11*, 63. https://doi.org/10.3390/agronomy11010063 https://www.mdpi.com/journal/agronomy

Basic question

- To graze or not to graze?

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	Category 1 (1-1800h grazing)				Category 2 (>1800 h grazing)				TOTAL AVERAGE
	Mixed farm (MF)	Sheep farm (SF)	Goat farm (GF)	Average farm (AF)	Mixed farm (MF)	Sheep farm (SF)	Goat farm (GF)	Average farm (AF)	
Grazing (h/year)	1398	1005	1584	1189	2460	2332	2642	2478	1882
Cultivated land (ha/ewe-dam)	0.05	0.03	0.05	0.04	0.02	0.07	0.01	0.03	0.03
Forage (kg/ewe-dam/day)	*0.68*	*0.60*	*0.72*	*0.63*	*0.35*	*0.47*	*0.28*	*0.35*	*0.48*
Concentrates	*0.51*	*0.53*	*0.63*	*0.53*	*0.51*	*0.81*	*0.62*	*0.64*	*0.59*
Labor (h/ewe-dam/year)	18.7	16.5	22.7	17.7	17.6	24.8	19.3	20.4	19.2
Hired (h/ewe-dam/year)	*5.2*	*4.7*	-	*4.4*	*4.9*	*2.6*	*4.8*	*4.2*	*4.3*
Family (h/ewe-dam/year)	*13.5*	*11.8*	*22.7*	*13.3*	*12.7*	*22.2*	*14.5*	*16.2*	*14.9*
Average size (ewes/dams)	302 (177/125)	310	205	294 (232/62)	385 (305/80)	200	350	294 (141/153)	294 (183/111)
Milk yield (lt/ewe-dam)	162.3 (155.8/171.6)	181.5	226.6	180.4 (176.2/196.4)	153.6 (158.0/136.4)	183.1	148.0	159.4 (173.0/146.9)	169.1 (177.9/199.5)
Meat yield (kg/ ewe-dam)	10.1	11.4	9.1	10.9	9.7	10.4	9.6	9.8	10.3
Milk price (€/lt)	0.63 (0.76/0.48)	0.78	0.54	0.72	0.68 (0.72/0.52)	0.73	0.53	0.63	0.67

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	Category 1 (1-1800h grazing)				Category 2 (>1800 h grazing)				
Production expenses	Mixed farm (MF)	Sheep farm (SF)	Goat farm (GF)	Average farm (AF)	Mixed farm (MF)	Sheep farm (SF)	Goat farm (GF)	Average farm (AF)	AVERAGE FARM
Land	**8.16**	**4.78**	**6.92**	**5.92**	**2.87**	**13.57**	**2.31**	**5.65**	**5.78**
Rented	*5.20*	*3.04*	*6.13*	*3.93*	*2.01*	*8.28*	*1.89*	*3.74*	*3.83*
Own	*2.96*	*1.74*	*0.79*	*1.99*	*0.86*	*5.28*	*0.42*	*1.91*	*1.95*
Labor	**51.69**	**47.88**	**68.20**	**50.86**	**47.66**	**72.74**	**56.23**	**58.85**	**55.15**
Hired	*11.23*	*12.46*	*0.00*	*10.94*	*9.55*	*6.16*	*12.83*	*10.13*	*10.51*
Family	*40.46*	*35.42*	*68.20*	*39.92*	*38.11*	*66.58*	*43.40*	*48.72*	*44.65*
Capital	**154.11**	**170.61**	**188.52**	**167.72**	**144.90**	**202.21**	**119.69**	**149.36**	**157.86**
Variable	*97.45*	*108.55*	*117.53*	*106.32*	*94.41*	*130.85*	*82.35*	*99.11*	*102.45*
Purchased feeds	69.00	86.34	86.96	81.58	79.89	99.80	63.43	77.81	79.55
Crop production	11.47	6.66	10.31	8.34	3.20	14.32	3.09	6.32	7.26
Other	16.97	15.56	20.26	16.40	11.31	16.73	15.83	14.98	15.64
Fixed	*56.66*	*62.06*	*70.98*	*61.41*	*50,50*	*71.37*	*37.35*	*50.25*	*55.41*
Total	**213.96**	**223.28**	**263.64**	**224.51**	**195.43**	**288.52**	**178.24**	**213.87**	**218.79**

€ per ewe/dam

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	K1: 0 -1800 hours of grazing				K2: 1801 - 3600 hours of grazing				
Financial results (with subsidies)	Mixed	Sheep	Goat	Average	Mixed	Sheep	Goat	Average	TOTAL AVERAGE
Gross revenue (€/ewe-dam)	186.82	223.49	205.79	211.63	174.38	229.68	153.38	180.25	**194.77**
Production expenses (€/ewe-dam)	213.96	223.28	263.64	224.51	195.43	288.52	178.24	213.87	**218.79**
Net profit (€/ewe-dam)	-27.14	0.21	-57.84	-12.87	-21.05	-58.84	-24.86	-33.62	**-24.02**
Return to labor (€/h)	1.31	2.91	0.46	2.14	1.51	0.56	1.63	1.23	**1.62**
Capital return (%)	-0.03	0.04	-0.07	0.01	-0.02	-0.06	-0.04	-0.04	**-0.02**
Farm income (€/ewe-dam)	47.91	72.12	36.80	62.06	44.32	50.50	45.83	46.80	**53.86**
Gross margin (€/ewe-dam)	89.38	114.94	88.26	105.32	79.98	98.83	71.03	81.14	**92.32**
Production cost – Sheep milk	**1.18**	**0.96**		**1.05**	**1.00**	**1.22**		**1.14**	**1.10**
Production cost – Goat milk	**0.74**		**0.91**	**0.68**	**0.72**		**0.83**	**0.82**	**0.75**

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SOUTH EUROPEAN SOCIETY AND POLITICS, 2016
http://dx.doi.org/10.1080/13608746.2016.1164916

Routledge
Taylor & Francis Group

In Search of Strategies to Face the Economic Crisis: Evidence from Greek Farms

Athanasios Ragkos, Stavriani Koutsou and Theodoros Manousidis

Basic question

- How did the economic crisis affect the structure and economic performance of farms?

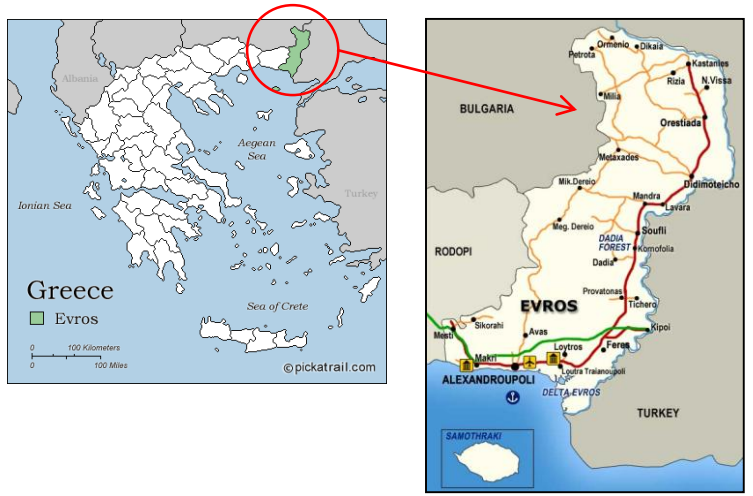
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Intensive sheep farms of Northern Evros

- From 2004 and onwards many farmers invested in order to modernize their farms
  - Improved animals, buildings and machinery
  - The majority of these investments were not rational and were made in haste

- Farms relied on hired labor, mainly of immigrants
  - Spouses remained in charge of their farm household duties

- Farmers did not anticipate the upcoming crisis
  - No loans – High bank rates
  - Late payments from dairy industries = No liquidity
  - Very increased input prices



632 sheep and goat farms which rear 68,466 animals

Only 8.3% rear more than 300 animals

Examination of the effects of the crisis on sheep farms and of farmers' strategies to overcome it

- The survey was conducted in 2010 and repeated in 2014 on 41 farms
  - 2010 when the repercussions of the crisis were just perceived
  - 2014 when the crisis was heavily felt by the farms

	2010	2014
Total number of farms	41	41
Number applying grazing	34	41
Average flock size (ewes/farm)	243.8	218.6
Milk production per year		
Average (tonnes/farm)	34.8*	28.1*
Milk yield (kg/ewe)	142.7*	128.6*
Average milk price (€/kg)	0.91	0.92
Lamb meat production per year		
Average (kg/farm)	1,715.6*	1,482.3*
Average lamb meat price (€/kg)	4.45*	4.92*
Cultivated land (hectares/farm)		
Non-irrigated	7.04	6.46
Irrigated	7.11*	5.24*
Labour requirements (hours/ewe)	27.8	28.8
Family	20.6*	26.8*
Hired	7.2*	2.0*

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	2010			2014		
	Expensesper farm(€)	€/ewe	% of totalexpenses	Expenses per farm(€)	€/ewe	% of totalexpenses
Land rent	4,947.0	20.3	6.4	3,581.9	16.4	4.7
Labour expenses	18,620.1	76.4*	23.9	18,497.2	84.6*	24.5
Family labour	15,322.9	62.8*	19.7	17,569.2	80.4*	23.3
Hired labour	3,297.2	13.5*	4.2	928.1	4.2*	1.2
Capital expenses	54,199.5	222.3*	69.7	53,344.2	244.0*	70.7
Variable capital	28,891.0	118.5*	37.2	28,035.7	128.2*	37.2
Feedstuff expenses	22,437.8	92.0*	28.9	22,412.4	102.5*	29.7
Other variable expenses	6,453.2	26.5	8.3	5,623.3	25.7	7.5
Fixed capital	25,308.5	103.8	32.5	25,308.5	115.8	33.6
Total production expenses	77,766.6	319.0*	100.0	75,423.3	345.0*	100.0

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	2010		2014	
Financial results[a]	€	€/ewe	€	€/ewe
Gross output	43,150.1	177.0*	33,525.3	153.4*
Production expenses	77,766.6	319.0*	75,423.3	345.0*
Net profit/loss	−34,616.5	−142.0*	−41,898.0	−191.6*
Gross profit	14,259.1	58.5*	4,990.9	22.8*
Farm income	−8,648.6	−35.5*	−17,418.9	−79.7*

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		2010			2014		
		Coefficient	*t*-statistic	Marginal product	Coefficient	*t*-statistic	Marginal product
Constant (*a*)		13.118**	1.972		0.380	0.598	
Outputs	Gross output (*Y*) (€)						
Inputs	Labour (X_1) (h)	0.357**	1.976	2.27 €/h	0.603	2.791***	3.21 €/h
	Variable capital (X_2) (€)	0.664***	5.251	0.99 €/€	0.773	5.089***	0.92 €/€
	Fixed capital (X_3) (€)	−0.188*	−1.673		−0.188	−1.309	
Goodness-of-fit	R^2		0.811			0.795	
	F-test (df+)	53.008 *p*-value(3) < 0.000			47.705 *p*-value(3) < 0.001		

	CRS						VRS					
	2010			2014			2010			2014		
Efficiency scores	Farms	%	Mean TE	Farms	%	Mean TE	Farms	%	Mean TE	Farms	%	Mean TE
1.000	5	12.2	1.00	4	9.8	1.00	10	24.4	1.00	10	24.4	1.00
0.900–0.999	2	4.9	0.96	3	7.3	0.93	7	17.1	0.95	6	14.6	0.93
0.800–0.899	3	7.3	0.85	1	2.4	0.82	5	12.2	0.84	2	4.9	0.82
0.700–0.799	9	22.0	0.75	3	7.3	0.77	5	12.2	0.74	3	7.3	0.77
0.600–0.699	5	12.2	0.63	7	17.1	0.64	11	26.8	0.66	11	26.8	0.66
0.500–0.599	5	12.2	0.54	5	12.2	0.56	3	7.3	0.52	5	12.2	0.52
0.400–0.499	8	19.5	0.46	8	19.5	0.46	–	–	–	3	7.3	0.50
0.300–0.399	2	4.9	0.38	4	9.8	0.35	–	–	–	1	2.4	0.37
0.200–0.299	2	4.9	0.25	5	12.2	0.28	–	–	–	–	–	–
0.100–0.199	–	–	–	1	2.4	0.19	–	–	–	–	–	–
Total	41	100.0	0.66	41	100.0	0.58	41	100.0	0.81	41	100.0	0.76