

Mountainous Societies

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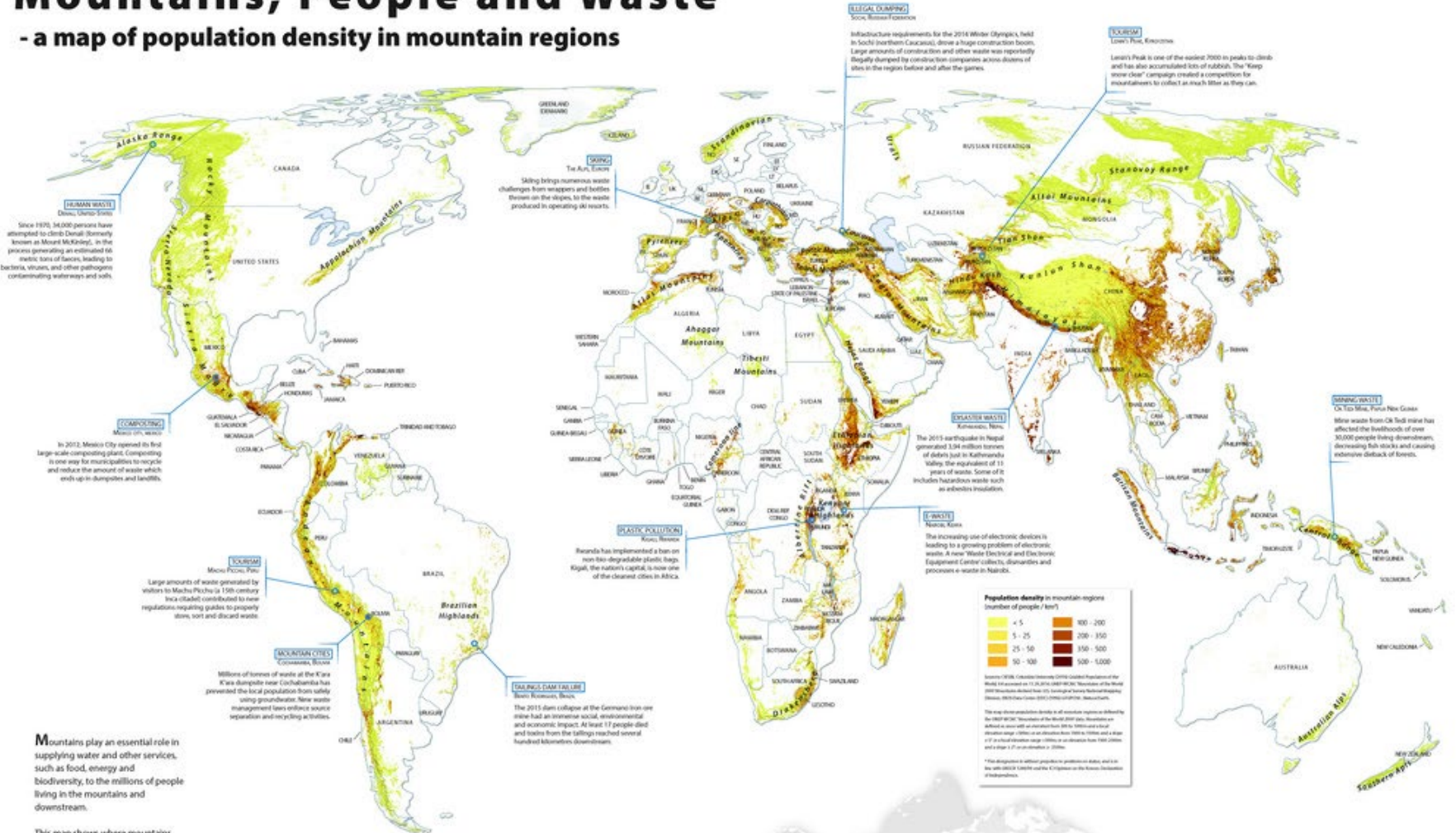


How many people live in mountains?

- The mountainous regions of the world cover **24%** of the earth's surface and they are home to **12%** of the world's population (about 800,000,000 people)
(and billions more depend for their livelihoods on mountains)
- The Alps is the most densely populated mountainous region in the world (14m)
- Nearly half of the mountainous population (46%) resides in the mountains of Asia/Pacific.

Mountains, People and Waste

- a map of population density in mountain regions



Mountains play an essential role in supplying water and other services, such as food, energy and biodiversity, to the millions of people living in the mountains and downstream.

This map shows where mountains are located around the world and the human population densities within these regions. Short case studies, which are referred to in the accompanying Waste Management Outlook for Mountain Regions - Sources and Solutions, highlight the variety of waste challenges and opportunities in mountain regions.

Where do people live in mountains?

- The majority (**70%**) lives in **rural areas**.
- The majority is concentrated at **low altitudes**.
- Over **70%** lives at altitudes **below 1,500m**. Only 8% live at altitudes above 2,500m. and almost all are considered as very vulnerable populations.
- **Urban centers also develop in or around mountainous areas** (La Paz, Mexico, Potosi, Lhasa)
- The most densely populated mountain ranges are also the most urbanized.



La Paz, capital of Bolivia (3.600m., p:813.000) surrounded by the mountain ranges of the Altiplano plateau. The city was founded in 1548, on the site of the oldest settlement of Laja, the Incas.



Mexico city (p:8,920,000 2,240m) in the plain of Mexico.

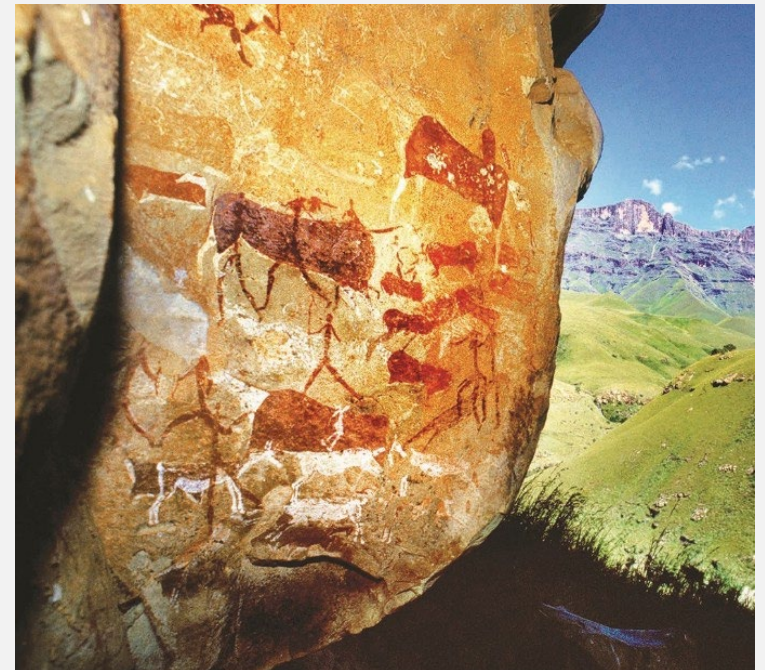


Lhasa at the center of the Tibetan plateau (3,656m, p: 500,000) surrounded by the Himalayas (the surrounding peaks reach an altitude of 5,500m).



Since when we live in mountains?

- Rock paintings in **mountains of Africa** show habitation from **40,000 years ago** (stone age).
- In **Japan**, findings of human presence date back to the **upper Palaeolithic period about 47,000 years ago**.
- The oldest traces of **human presence in the Alps** have been found in caves in the Western Alps and date back to **40,000 – 100,000 years ago**.
- *Traces of **hunter-gatherer habitation from the Pleistocene period** found in mountain valleys in the **Pyrenees**, mainly at medium-low altitudes.*
- *Findings in **Rocky Mountains** show human presence since **10,000 – 8,000 BC**.*



Humanity has always turned its attention to the mountains

- In the tropics, often, only in the mountains there was water and **land suitable for cultivation.**
- In other areas mountains were the only habitat for **nomadic pastoralists.**
- Mountainous areas have always been a **refuge.**
- Mountains were the **centers of important civilizations** (Incas, Andes).

Since the 19th century, due to social and technological change, the reapproaching of mountainous areas is on focus.



The social structure of traditional mountainous societies

Mountain societies around the world share some very strong common characteristics. These result from:

- the general social conditions formed in the pre-industrial era
- an economy based mainly on agricultural production / livestock farming
- rural areas, small and medium-sized settlements
- dependance on manual labor due to the absence of machines/technology
- low ability to communicate with other populations

Geographical isolation

- Geographically isolated because of the **natural environment** (terrain, climate, altitude, etc.).

Very often, mountains are the natural boundaries or borders between countries.

- Absolute isolation only in very few and specific cases.

New Guinea: Stone Age civilizations were discovered relatively recently.



Social isolation

- **Low degree** of communication in mountainous areas.

Mountain societies maintained a constant degree of contact with other settlements and cities, both on the mountain and outside the mountainous area.

- The **main channel of communication was trade.**

This took the form of either small markets, periodic bazaars in central settlements or towns or mass movements to other countries.



Cultural diversity

- Many different cultures in mountains of the world.
- Each **pocket of culture** in mountains is created like a limpet stuck in the **natural environment**, it **absorbs its characteristics**.
- Social isolation, born of geography, has led to the **development, preservation and maintenance**, for centuries, of **local cultural elements** in each region (customs, music, costume, folk narratives, etc.).
- *Jentsch (1984) introduces the term "High Mountain Culture" to describe precisely this particular culture, on a global scale.*
- ***Mountains: reservoirs of cultural heritage***



Marginalization

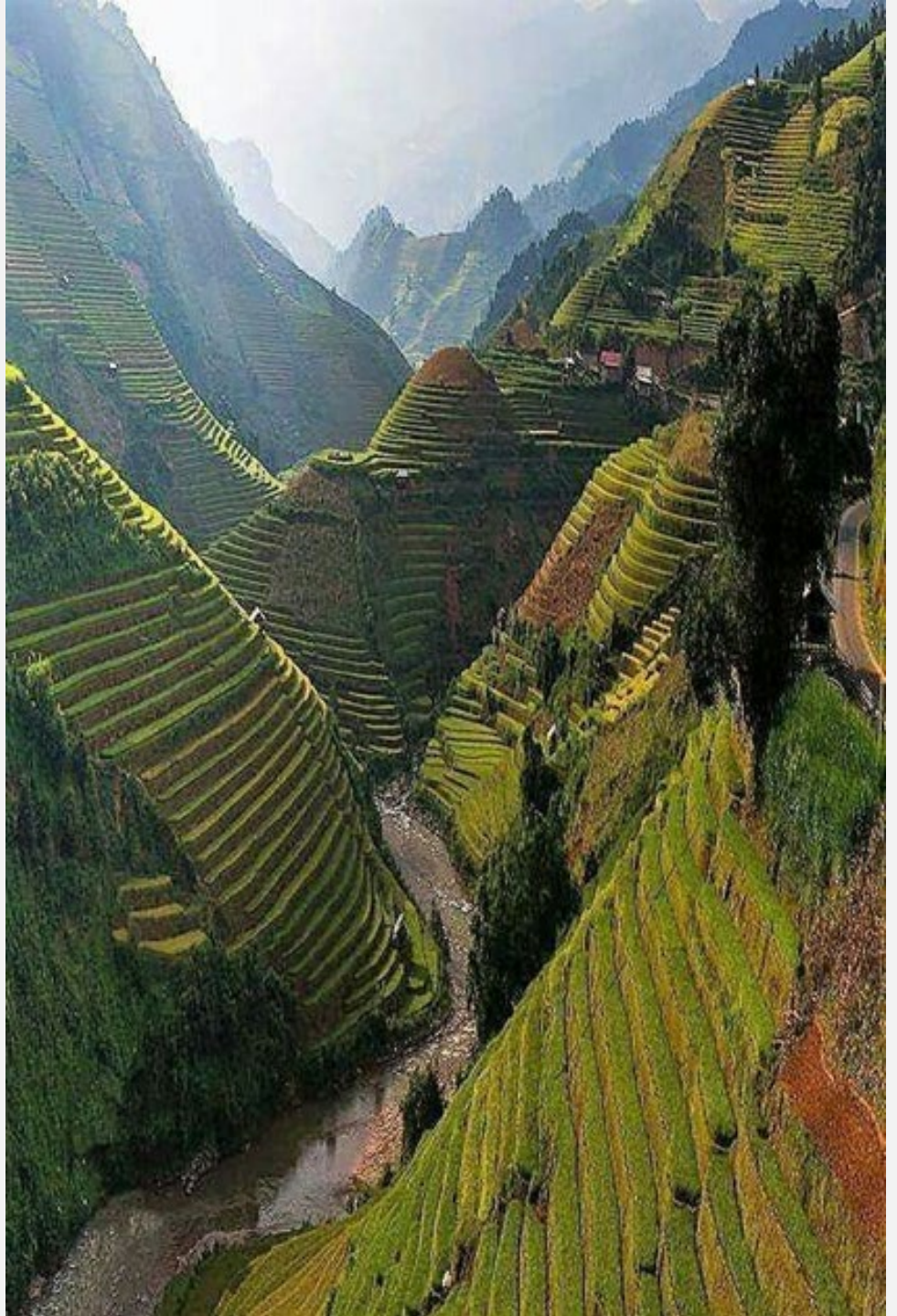
- Mountain areas have always been the **periphery**. *Distance from economic, political and institutional decision-making centers, which breeds psychological and cultural distance.*
- Mountain people feel **they belong to another world**, their own, which they must preserve and protect.
- Social isolation as **a form of social defense**. Mountain societies deliberately preserved traditions, their language etc, in an effort to preserve their cultural identity.

The strong sense of belonging

- Distance is real and symbolic.
- Very often, **mountain regions form a second country within their own country.** Not included in national policies, development plans in many cases exploited (natural resources) with little or no benefit to their local communities.
- Sense of ignorance or even hostility from the "outside world", which also leads to **clinging to the power first of their family and, at the same time, to the power of the collectivity of their small society.**

Adaptability

- The need to survive in difficult conditions led mountain communities to seek solutions of exceptional **flexibility, intelligence and creativity** to address the problems and limitations of the mountain and, at the same time, **to make the most of the possibilities** it creates.
- This led to their **adaptability: vital characteristic of mountain societies world widely.**



Terraces

May be the most common mountainous characteristic in the world



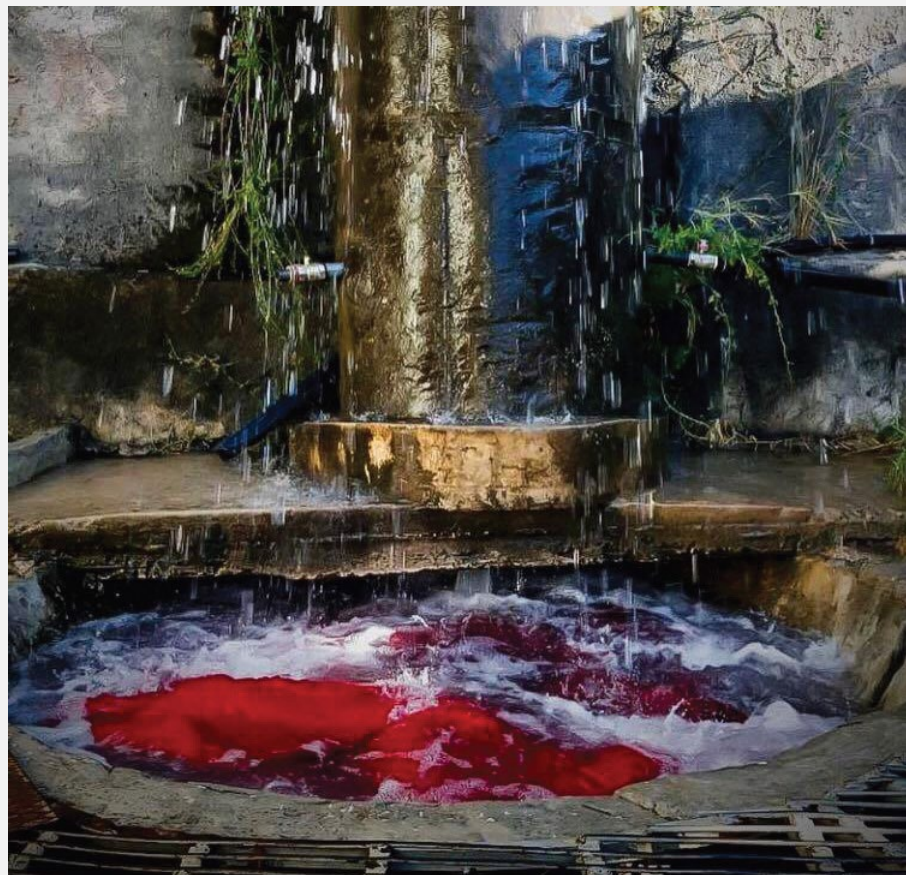
Dry stone walls Greece

Adaptability

- Adaptation of **crop species according to altitude zone** and **exchange of products** to meet all needs.
- **Nomadic livestock farming**: Seasonal movement of herds to lower and higher altitudes.
- Selection of places for growing crops or settlements depending on **orientation**.
- Utilization of the slope of the ground for **energy production** from the power of water.



*Whirpool
Water spinner*



Buildings: Thick walls to reduce heat losses. Small or no openings at the north side, larger on the south/east. Winter and summer rooms. Houses on stilts and large openings (flood protection).



Mountain societies: frugal

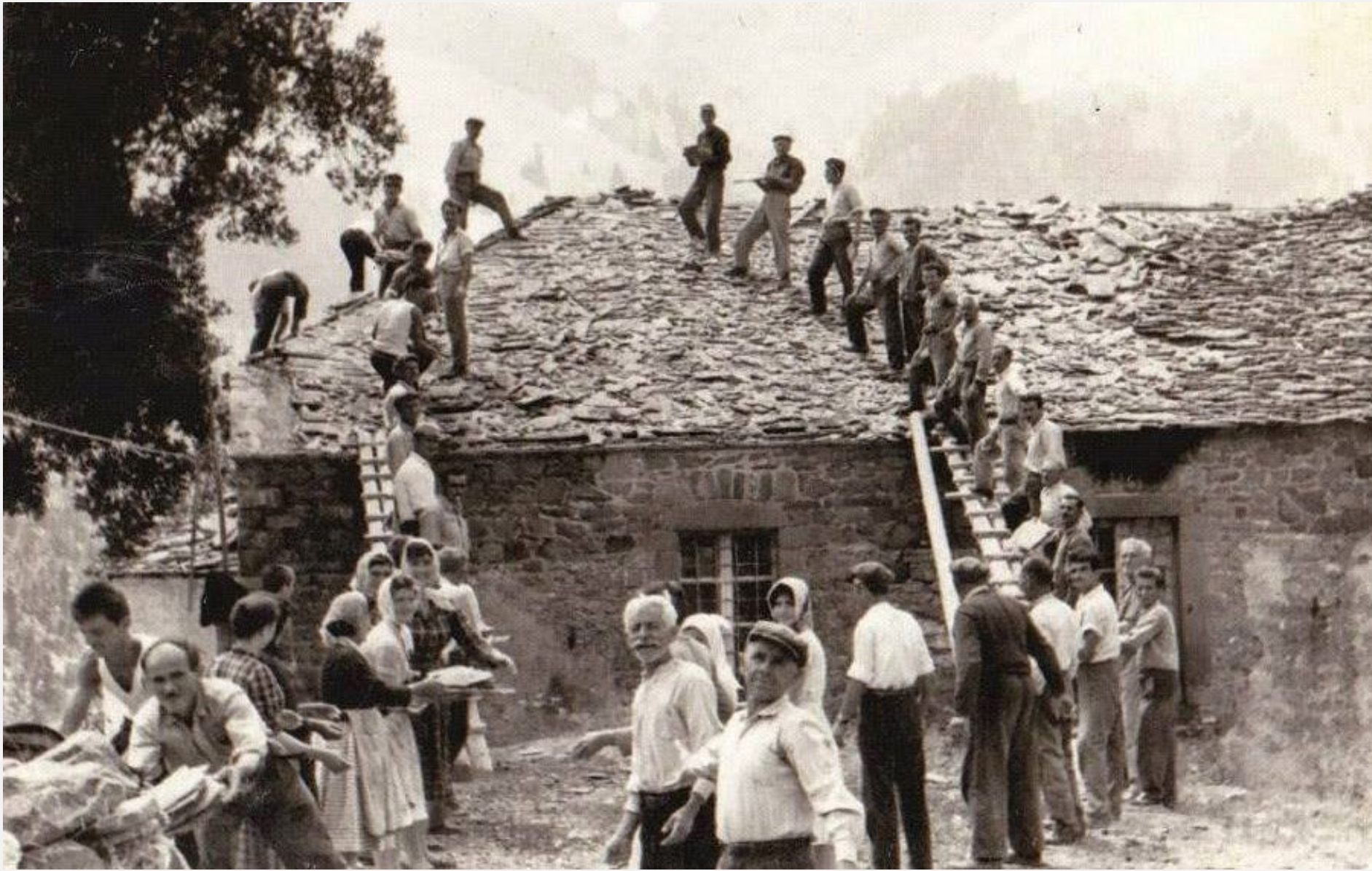
Mountain society is frugal, because it cannot be different. It limits its needs to the necessities, learns to preserve, to reuse (again and again), to live frugally, to create products with durability that will last for "a lifetime".

In the mountain, **nothing is thrown away**, everything is recycled. *Long before modern society invented the terms recycling and circular economy.*



Collectivity

- Need for labor. Everyone works in all kinds of manual work.
- **Labor exchange networks** informally in a more general context of **mutual trust and community ownership**.
- Extensive networks for the **exchange of products, goods, labor**.
- **Collectivity in the management of natural resources:** land, water, forests, pastures.
- **No one survives without the existence of the community. Each individual contributes to the common good.**
- **However, social hierarchy, segregation exists.**



Are mountain societies conservative, introvert ?

The difficult mountainous natural environment sculpts people who become determined, rough, learn to live with very few elements.

Mountain societies are introvert, they are skeptical to anything new or unfamiliar, they don't trust easily if at all.

They have always been at the margin; they couldn't be otherwise. Caution is a way of defending themselves. A way of resisting exploitation by outsiders.

Ultimately, a **way of survival, endurance and preservation over time.**

Marriage, Dowry, Inheritance

Important institutions. **Marriage unites families and property.** A "good" marriage brings **social status.** **Dowry** is the property with which the **woman will enter the "partnership"**. It is vital that property is preserved within the boundaries of the family. The vast majority of **property is inherited / transferred to male children.**



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Mountain (and not only) societies are patriarchal societies.

- A system of political, social and economic relations and institutions whose structure **is based on inequality between men and women.**
- Patriarchal structures underpin male domination in **both public and private life.**

Women are discouraged:

- to go to school,
 - to acquire any skill (except domestic skills),
 - to participate actively in public affairs,
 - to express an opinion,
 - to have the right to self-determination.
-
- *Social rules and obligations exist to which both men and women have to obey; yet, men enjoy high level of independence, freedom.*

- **Gender inequalities** are reflected in statistics of illiteracy, ownership, entrepreneurship, etc., in all mountainous regions around the world.
- Recent studies reveal that **it is mostly women and young people who migrate from mountainous areas in Europe** (*Euromontana, 2012, 2022, MIRC 2010-2022*) settling in urban centers looking for a better life.
- **Women's preferences, needs, have to become central in mountainous policies.**

Land tenure

- **Land tenure** is the **legally or customarily determined relation** between individuals or groups of people, **to land** (the term land includes other natural resources: water, forests).
- **Property rules determine how land ownership rights are distributed within society.** They define how access is implemented through rights to use, control and transfer land, as well as obligations and restrictions. Simply put, they determine who can use the resources and how long and under what conditions.
- In practice there are **many different forms of land ownership** in each local community, depending on history, culture, social development, etc.

How much land belongs to women?

- **Less than 20%** of global land ownership is female owned.
- Due to the **lack of secure land rights**, women
 - *may be evicted from their home in the death of their husband*
 - *they do not have access to resources when their husband evicts them from the home*
 - *they do not have the right to make decisions regarding the management of their land*
 - *they have no right to compensation if an investor, cooperative or state takes their land*

In some cases, it is the current **legislation** that **prevents women** from either owning land or accessing land.



Statistics and data...

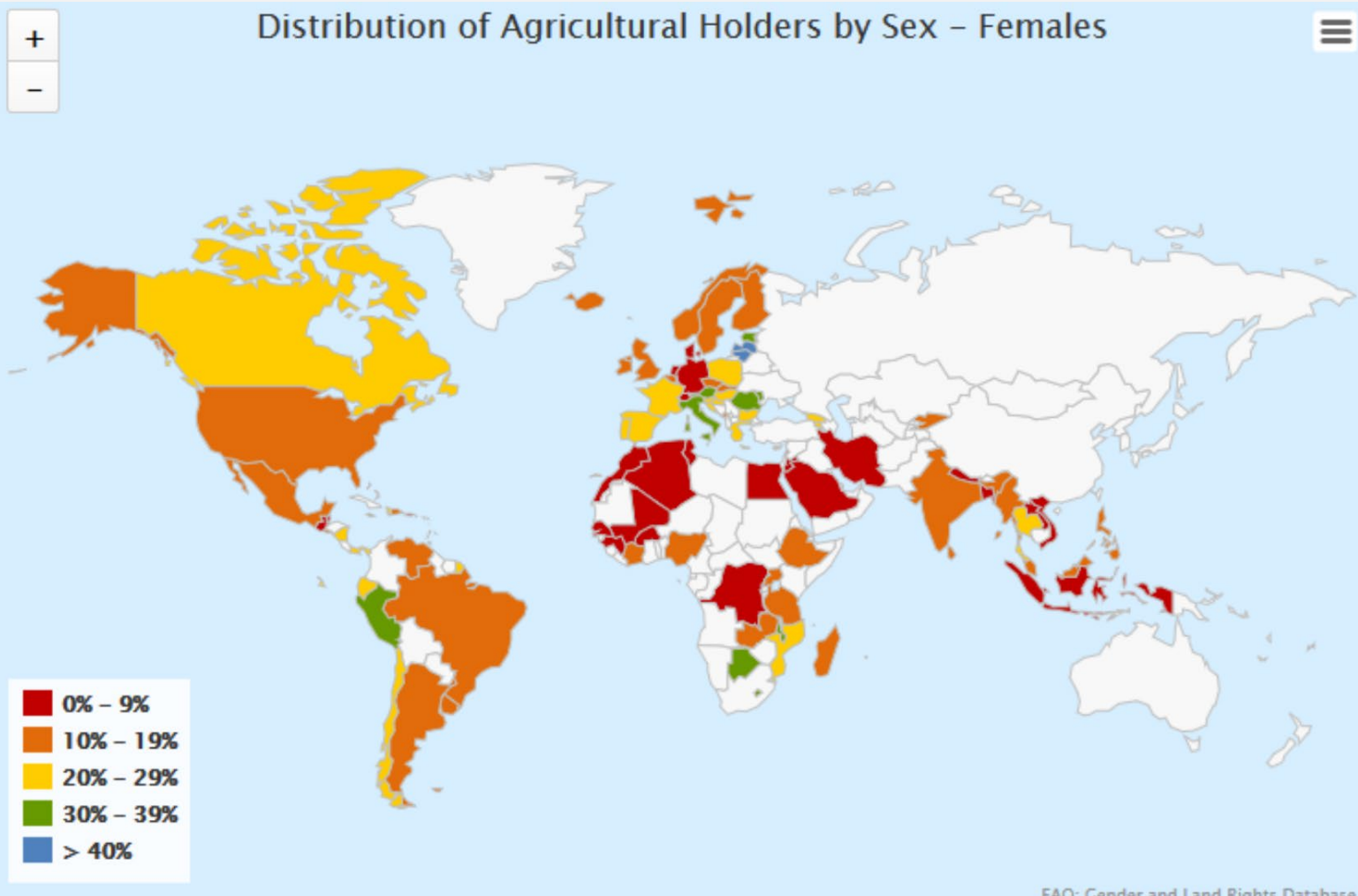
- In **half** of the world's countries, women are **unable to claim equal property rights** despite legal protection.
- In Latin America adult women are required to be **represented by their husbands** in all legal cases. Discrimination against women stems mainly from their unequal legal treatment.
- In Chile, the **husband administers the joint property and also any private property of his wife**, unless she acquired it by economic means independent of his own.
- In parts of Peru, women's right to access land depends on their **position within the family** and their **position in society**. *"Certified member" of society – men hierarchically superior and women only if they are widowed.*

(FAO 1990, 2021, World Bank, 2009, UN, 2015)

- South Asia, Afghanistan, Bangladesh, Pakistan, Nepal **do not have equal inheritance rights for sons and daughters.**
- In Asia, if a woman **inherits property**, it is **managed by her husband**. A widow's right to remain on her land *is not always a given*.
- In Cameroon, **a woman does not inherit land, since she will enter into marriage** and then the land will be acquired by her husband outside her community. When her husband dies, she still will not inherit, as the land returns to the husband's family.
- In Africa, mainly **tradition excludes women from owning land**, which is owned by men from generation to generation. A widow's right to remain on her land is not always a given.
- In Ecuador, unless agreed otherwise in the marriage contract, the **husband administers the conjugal property.**
- In Mexico, the **husband administers the conjugal property** under the community property regime.
- In Paraguay, unless otherwise stated in the marriage contract, the **husband is the administrator of the property.**

(FAO 1990, 2021, World Bank, 2009, UN, 2015)

Distribution of Agricultural Holders by Sex – Females



In Greece

In the past:

In rural and mountainous areas, family ownership and management of land applies.

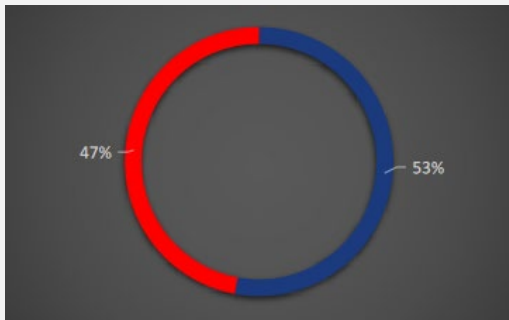
Land belongs to the family and its representative and manager is the man.

Inheritance of land to male child.



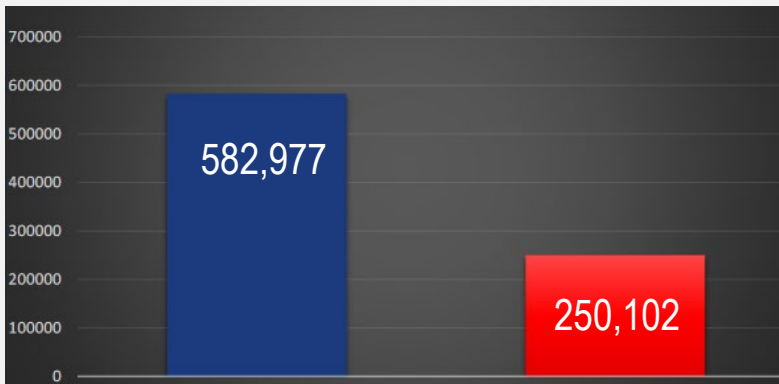
- **Dowry was an obstacle in female ownership: property was given to the husband.**
- Gender equality was established in 1983 by law.
- The institution of dowry, which was also abolished in 1983.
- *Lack of data.*
- Women work as farmers but the land / management of land belongs to men.

	1998		2003		2008		2013	
Work in agricultural sector	58,9%	41,1%	58,8%	41,2%	59%	41%	60,3%	39,7%
	M	F	M	F	M	F	M	F

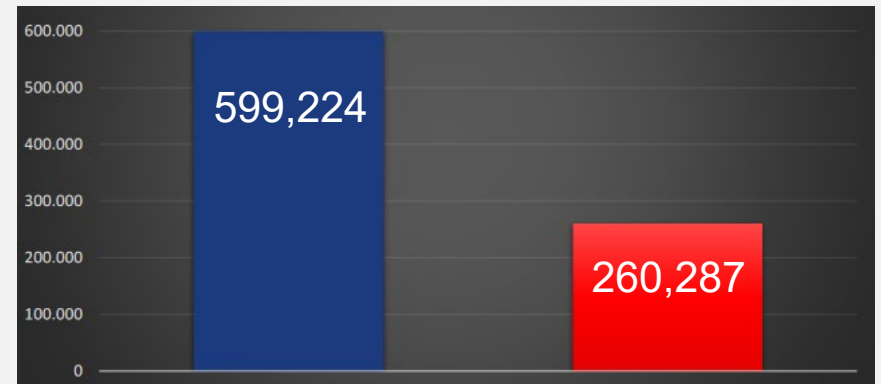


Male and female agricultural workers in 2021

2005



2007



2016



Male and female agricultural land ownership
(Dimitrokali, 2022)



Built environment

- Reflection of a given social organization, key element of the level of development of a society.
- An important cultural heritage.
- Exceptional morphological variety of built environment.
- Despite the differences, there are common principles, arising from adaptability to nature.

Common principles for creating the built environment

- **Criteria for choosing the location** of the settlement: (security/defense, orientation, existence of water, possibility of cultivation of land, view, visual contact with neighboring populations).
- Utilization of **materials of the immediate natural environment** (stone and wood).
- Adaptation to the natural relief.
- Utilizing the potential of **natural resources: sun, wind, vegetation** for comfort internal conditions.



The main common feature is that the architecture of mountain settlements shows **constant evolution**, integration of new elements, throughout its duration. **It is not static.** It is the result of observing nature, utilizing its raw materials, adapting to its limitations, evolving based on needs, etc.



3 main types of settlements

Nucleated settlements:

organized around one or more centers

Monocentric settlements or Polycentric settlements

Linear settlements:

organization follows a linear form, it develops along an axis

Scattered settlements:

sparse construction, large distance between buildings, usually agricultural land

Linear settlement in Nepal





Castellfollit de la Roca,
Spain

Migration patterns in mountainous Greece

- Greece gets under the Ottoman Empire in 14th – 15th ct.
- During 15th ct, Greeks relocate to mountains (safety).
- 15th – 20th ct Greeks live and develop in mountains.
- Peak of development between 17th – 18th ct.
- Since, 19th ct, economic and social decline.

- 20th ct:
 - 1940 – 1950: WW II and civil war - 1st massive population decrease. Migration to urban centers or Europe, etc
 - 1960 – 1970: 2nd massive depopulation. Internal migration.

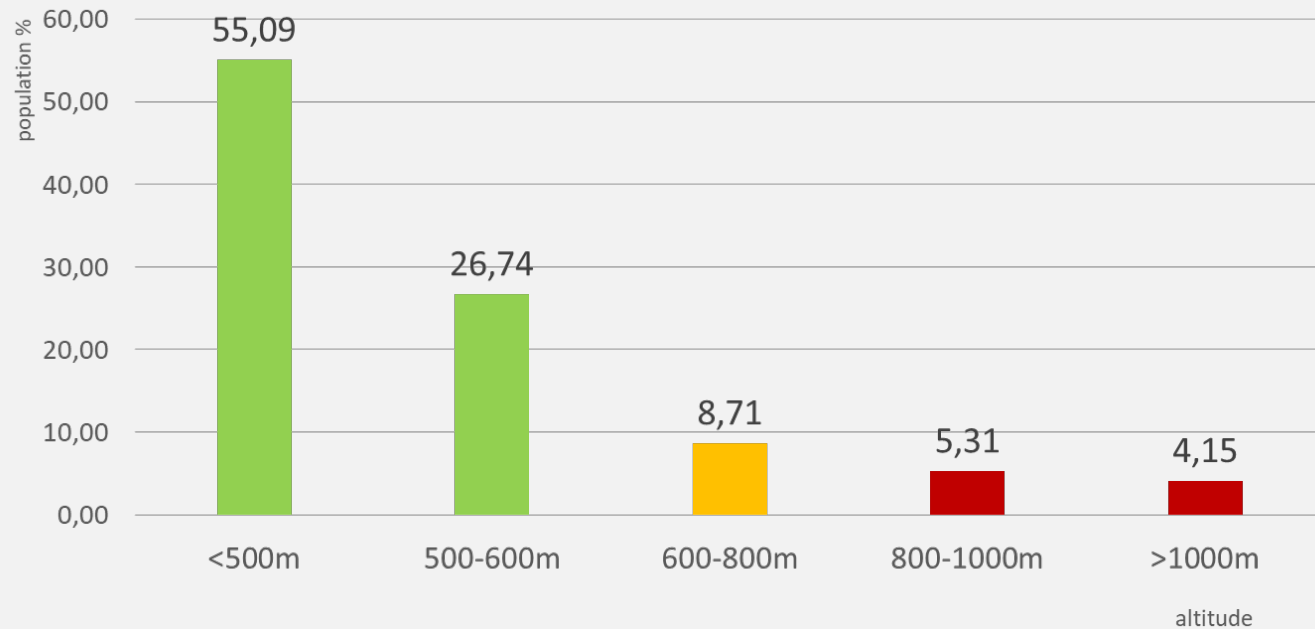
- Mountainous areas remain at the margin of development (focus on urban centers and some islands).

- Economic crisis since 2010 forces people to abandon many mountainous regions.

POPULATION CHANGES IN NORTH GREECE (DE FACTO)

North Greece	1940 - 1950	1960 - 1970
Region of West Macedonia	- 18.65 %	- 14.07 %
Region of Epirus	- 26.59 %	- 25.77 %
Region of Central Macedonia	- 33 %	- 27.05 %
Region of East Mac.-Thrace	- 36.25 %	- 23.37 %

POPULATION INEQUALITIES 2001 Reg. Unit of Ioannina



- Almost 55% of the total population lives at no more than 500m.
- Half (46.9%) of the total population is concentrated in the Municipality Ioannina.
- Only 9.5% lives higher than 800m. From them, only 4% lives higher than 1,000m.

Amenity migration. An opportunity for mountains

- The movement of people to places, permanently or periodically, mainly due to the actual or expected better environmental quality and cultural diversity of the place of destination (Moss 2006, Glorioso and Moss 2007)
- **The rediscovery and re-evaluation of rural areas as suitable and attractive for habitation** or for commercial use by residents of mainly urban areas (urban refugees). This form of habitation is not always accompanied by a permanent change of residence and may be permanent or seasonal, which implies the existence of more than one residence of the migrant (Moss, 2003)



Who are the amenity immigrants?

- Urban residents, often with a high level of education and income, who decide to restart their life on the mountain.
- People who left their place in the past, looking for work, and return to it.
- Descendants who decide to return to their parents/grandparents' place, often after having inherited some parental property (re-migrants).
- Young people work in an area seasonally, they are attracted by the place, they relocate.



What attracts amenity migrants?

- Desire for a better, safer, simpler, quieter life, in contact with family and friends.
- Better place for children to grow up.
- Cheaper houses (*a house with a garden*).
- Quality of the environment and the possibilities for outdoor activities.
- Important that a place offers favorable possibilities for acquiring housing, along with some basic services/facilities (health, education).

What discourages amenity migrants?

- Poor infrastructure and services.
- Shortages in means of transport.
- Limited possibilities of employment.
- Exhausting working conditions in the countryside.
 - The varied difficulties in the winter season.
 - **Unfriendly locals.**



In mountainous Greece

- Very few studies on amenity migration.
- Case study areas: Epirus, Thessaly.
- Two main categories: **Older people who return** to their home-places and **Young people** (forced by financial crisis) who want to **restart their life in mountains**.
- Existence of a house helps, connection with the place, possibilities for employment (tourism).
- Not welcoming locals the main difficulty.

Mountains can provide a place for a quality living.

Values of the past societies can lead a worth-living development in mountains.

