

**“The situation of livestock farming
in the Greek small islands of the Aegean Sea”¹**

The total surface of the Aegean Archipelago is about 9,000 sq. km. while the total population accounts for 510.000 inhabitants (2001 census). About 60 islands are still inhabited and they are considered to be “small” in terms of population density, as there are less than 100.000 permanent inhabitants on each one. This criterion of human density excludes currently, not only Crete and Evia, but also Rhodes. In fact, with the exception of a few, relatively larger in surface and population, islands (Lesbos, Chios, Samos, Kos) which may have around 10.000 – 40.000 inhabitants, the great majority of the so-called “small Aegean islands” consist practically of small communities with less than 5.000 permanent inhabitants each. Despite their diversity, however, their particular geographical features, climatic conditions and their socio-economic structure are characterised by certain disadvantages regarding the agricultural activity and production, particularly in livestock.

Given that their agricultural land is found on semi- or marginal areas, the islands have experienced a gradual abandonment of land and, therefore, a declination of local societies. They could be already completely devastated if, since the 70’s, tourism had not been developed and become the most important source of income for the inhabitants, which contributed to the recovery of their societies. Indeed, depending on the typology of each island, the most important handicaps for agriculture, particularly the livestock production, are the following:

- They are predominantly dry and steeply mountainous areas.
- They are characterised by a scarcity and exhaustive use of natural resources, as there is a limited availability of all the factors of production, particularly in terms of land use.
- The water shortage sharpens competition between various uses.

¹ The present paper has been drafted as part of an oral intervention made, after invitation, in the “**Conference on the Future outlook for agriculture in areas with specific natural handicaps (upland, island and outlying areas)**” organised by the **European Economic and Social Committee** in Palma de Mallorca (Spain), 3-4 April 2006.

- As a result, there is an acutely unbalanced land and water uses between farming and tourism. Land prices increased, while there is a loss of productive agricultural land and land of natural heritage.
- In certain areas, landscape degradation and pollution has been noticed.
- Isolation from the mainland and remoteness: sometimes, the distance from the mainland makes their access from the sea extremely difficult (mainly in winter, but also quite often in the summer, due to the strong north winds which, from one moment to the other, turn the sea to become extremely rough). Therefore, increased transport cost makes the food supplies even more difficult. A certain level of self sufficiency becomes, therefore, extremely important for reasons of food security to the permanent inhabitants.
- Gradual but steady shift of the employment of the remaining farmers from farming to tourism continues. Farming becomes progressively only a small part of a multi-activity model of production and income.
- Finally, the islands consist of an ecologically very fragile environment. Environmental damages caused by climate factors (forest fires, strong winds, very low rainfalls per year) are increasing frequent and intense, sharpening soil erosion, impoverishing the land further and making farming more vulnerable.

Generally, therefore, abandonment of the agricultural activity is due mainly to:

- Low productivity and yields;
- High production, marketing and transport costs;
- High infrastructure costs (seaports, airports, energy sources, communications, governance of territorial fragmentation, etc);
- Pressure from growing tourism;
- Poor performance of the local markets.

Any trend towards a further abandonment put in risk the existence of their permanent population. All the factors that I have mentioned before, have led the small islands to be highly dependent on a certain level of **self sufficiency** in agricultural production, particularly of livestock. This is because, raising animals, particularly sheep and goat, but also in certain cases cattle, as well as pigs and poultry, is of utmost importance, because:

- Their local production covers a part of the food needs of inhabitants in essential food products like meat and milk (in winter, the islands are often isolated for many days, because there are no dense ship-transport services and therefore, transport of livestock products become problematic).
- They are contributing to the maintenance of the social tissue of the regions
- They offer an additional source of employment and income in an environment which favours multi-activity
- Till the years of 60s the islands were practically working under conditions of closed economy. This has led in the production of plenty of local products address in niche markets which have become famous for their quality and closely linked to the traditions and customs of the islands. These local products are considered today to be part of our national heritage. For instance, 5 out of the 20 Greek cheeses which have been recognised as products of Protected Geographical Nominations are produced in the islands of the Aegean Sea.

Size of holdings and livestock production

Statistically, **56,370** of family type holdings (7% of the country total) appear to be still active in the Islands (2000 census data). The Utilised Agricultural Area: 265,000 ha (7.4% of the total) out of which more than 40% are characterised as “barren pasturage”. That is, the actual UAA of the islands is less that 5% of the country total.

If we concentrate on the holdings of the islands, we shall find that almost all of them are **mixed farms** of very small size, of around 4 ha each on average.

It should be noted that, due to the remoteness of the islands, there is a number of **local scarce races** in their livestock headage, which have been maintained for centuries (e.g. the sheep of Chios). Their preservation becomes of utmost importance, not only for fauna reasons but also because they are fully adapted to the dry climate and, generally, the environmental fragility of the islands.

Cattle: Out of the total number of the island's holdings, 2,500 (4.4%) are raising 36,400 animal heads (representing 15 cattle heads per farm, on average). In fact, 75% of them are found in Cyclades Islands, mainly in Naxos and Paros, where there is a strong tradition in producing local meat, dairy products and specialities of high quality, most of which have the status of either Geographical Indication or Nomination of Origin. Recently, the island holdings raising cattle produce yearly about 4,000 tones of **beef and veal meat** and 30.000 tones of **dairy milk**.

Sheep & Goat: In total, 10,600 holdings (20% of the island's holdings) are raising 600 thousands sheep animals and 14.000 holdings (25%) are raising 400 thousands goat animals. As it is the case in all the eastern Mediterranean countries, usually the flocks are mixed, but the statistical data indicate that around 4,000 holdings are raising exclusively goat animals.

Altogether, the sheep and goat holdings produce 3,000 tones of **sheep meat** and 4,500 tones of **goat meat**. In fact, 50% of the sheep & goat meat is produced in small Cyclades islands. They also produce 36,000 tones of **sheep milk** (80% in Lesbos Island only) and 30,000 of **goat milk** (50% in small Cyclades islands).

In total, the livestock holdings are producing about 10,000 tones of different kind of **cheeses** (soft and hard).

Pigs: Out of the total, about 5,000 holdings (9%) are raising **33,000 pigs**, producing about 6,000 tones of **pork meat**.

Poultry: About 18,000 holdings (32% of the total) are producing 2,500 tones of poultry meat and 1 million pieces of eggs.

It should be added that some timid but promising steps have been also made towards organic livestock production. In recent years, **organic livestock** covers 4.5% of the cattle animals and 1-1.5% of the sheep and goat animals.

Finally, due also to the rich bio-diversity of the region, a relatively considerable **honey production** (1,300 tones) takes place on the islands which comes out of aromatic wild plants (thyme) and is considered to be of very high quality.

The Greek strategy for a policy towards the development of agriculture on the islands, as far as this is possible, aims principally at:

- Sustaining multi-activity through creating favourable conditions to the remaining farmers to have access to additional sources of income, because returns from agriculture alone are much lower than returns from other activities on the islands (tourism).
- Promoting further the quality component through the integrated management of the remaining production and the certification of traditional products on the basis of recognised standards for:
 - Organic livestock production
 - Special poultry breeds
 - Products of appellation of origin
 - Outdoor breed of pigs
 - Quality beef and pork meat

The production of products that can be certified is considered to be of a great benefit to the small islands, because there is a rich experience and tradition in the production of local products, the breeding ways could be environmentally friendly, preserve and enrich local bio-diversity and natural and productive resources.

- Further encouragement of organic livestock production
- Where necessary, programmes of extensification of production are to be expanded, in particular of sheep and goat headage, in those islands where there are problems of excess grazing.
- Finally, rural development programmes should be implemented, aiming at:
 - Decreasing the transport cost of the “imported” inputs, in particular fodder, and generally, facilitating exchanges of products between the islands and the mainland.
 - Advertisement and marketing of islands’ products
 - Preservation and protection of the scarce animal races.
 - Encouragement of ecological and agro-tourism.
 - Utilisation of the sea wealth for tourist purposes.
 - Encouragement of a rational fisheries activity.