

## About the project

We created a group of stakeholders with interest or involved in integrated farming, and collected quantitative and socio-economic data in order to assess these systems functionality in terms of environmental, social and economic sustainability.

### Objectives

- To improve farmers awareness on agroforestry management,
- To add value to on-farm woody resource,
- To encourage better management of woody vegetation at farm and regional level,
- To identify the optimal harvest and valorising practices and final uses for wood from coppice.



## Factsheet Silvopastoral system in Romania Maramures county



In Maramures county approximately 40,000 farmers exploit an agricultural area of over 165,000 hectares. More than 30,000 of them exploit land with an area of one to five hectares. Only 110 farmers below 0.5% exploit agricultural areas larger than 90 ha.

Traditional silvopastoral systems with pastures, hay-meadows, well-individualized trees, forest strips and grazing animals are the most encountered form of land management in the mountain and hilly area of Romania.



## Tree biomass production

Wood vegetation was not planted, but spontaneously emerged as a result of ecological succession of ecosystems.

The age of old trees on the meadows may be over 100 years, but the dominant trees are 5-10 years old trees.

The density of trees is very high in forest strips, characteristic for forest ecosystems.

In grasslands trees density varies from 20 ind / ha to 200 ind / ha.

The agro-silo-pastoral systems imply a management of the grasslands in their composition and also of the woody vegetation.

The management of grassland has as its actions the division of the entire grazing area in parcels, the organization of a grazing rotation, as well as the maintenance and improvement works. They are used in an extensive approach.

The woody vegetation, often spontaneous, is managed by pruning and polarding and used as firewood to fill the farm energy requirement.

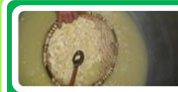
Tree density	Wood demand	Wood cost
20-200 ind/ha (within pasture) 2000-2500 ind/ha (within forest strips)	100 m <sup>3</sup> needed to cover energy requirements	200€



## Cheese production process



### Coagulation



### Boiling



### Forming



### Maturation



### Packing

The milk produced is processed by traditional methods inside the farm, resulting in cheese and whey.

Whey is the watery fraction that separates from the coagulum during conventional cheese making process. It represents approximately 85-90% of the volume of milk used for processing into fermented cheese and contains about 55% of the milk's dry matter. In most farms in Romania it is thrown away, but with the right infrastructure it can be used to produce cheese and beverages.

### Strengths and weaknesses

High production of secondary outputs from the system like wood biomass and whey resulted from cheese making process is considered as being a strong point for the system. Hard terrain and poor accessibility, as well as high production costs for the secondary outputs of the system are the main weak points of the Petrova silvo-pastoral system.