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TOURISM – NATIONAL FOREST FUND: A COMPLEX RELATIONSHIP

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Rezumat : Fondul turistic forestier național : relații complexe. Turismul, ca oricare altă activitate economică, se află într-o strânsă interdependență cu patrimoniul natural, care constituie obiect al activității turistice. Orice degradare a unei părți a acestuia determină, treptat, o diminuare a activității turistice din acea zonă; de aceea, dezvoltarea turismului trebuie să se realizeze concomitent cu păstrarea funcționalității ecosistemelor. Un echilibru între dezvoltarea zonelor turistice și păstrarea integrității ecologice a acestora este mai mult decât necesar.

În aceste condiții, exploatarea nerațională a pădurilor reprezintă aspecte importante ale activității umane care pot conduce la afectarea potențialului turistic al unei zone. În studiul de față ne-am oprit doar la o prezentare generală a situației actuale a fondului forestier național care ocupă în prezent 6,2 milioane hectare (26% din suprafața țării), cu contraste mari de la o zonă la alta: alături de păduri de înaltă biodiversitate și stabilitate (precum fâgetele, de exemplu), există multe păduri deteriorate, destabilizate, aflate acum în declin sau chiar în curs de uscare. Alături de zona de munte, relativ bine împădurită, avem întinse suprafețe de câmpie despădurite, dealuri erodate, câmpii stepizate etc. Diminuarea suprafeței forestiere este datorată îndeosebi tăierilor ilicite, mai ales de pe suprafețele de pădure care au trecut în proprietate privată după 1990.

Apreciem că în prezent se manifestă o amplă presiune socială și economică asupra pădurilor, în condițiile în care turismul românesc, ca și cel mondial, îmbracă tot mai mult forma întoarcerii la natură, la modurile tradiționale de viață.

Key words: *forest resources, tourism, regional imbalances, forest regeneration*

Due to their renewable and non-polluting character, **forest resources** are primarily taken into consideration in all sustainable development strategies. Among the **factors** that have disturbing influences upon the growth and development of forests, **man** constantly makes his presence felt at the local, regional and national level.

The international dialogue on woods has focused on well-known aspects of their *sustainable management*. Recently it has also turned to such issues as *tourism in forest areas*, analysis of the opportunities of using woods in the context of ecotourism development and identification of certain strategy elements that could be used in order to stimulate the sustainable utilization of forest resources.

1. The national forest fund

As an economic activity, **tourism** has a direct impact on the environment, constantly taking part in its degradation. The relationships between tourism and forest ecosystem are the following:

- the forest ecosystem generates development conditions for tourism;
- the human society can alter the structures of the forest ecosystem;
- the human society can affect the self-organization processes of the forest ecosystems by changing the parameters, microclimate etc.

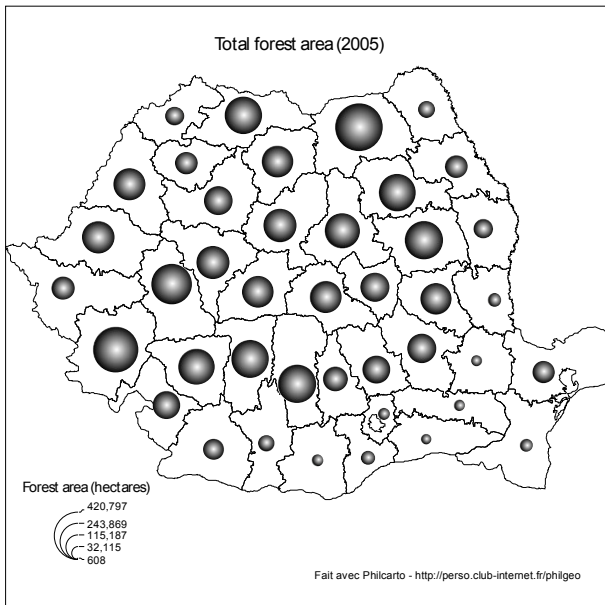


Figure 1

The most efficient analysis of the impact of the human factor is maximum, without doubt, at the local level (such as the level of a hydrographic basin). The present study focuses only on the general presentation of the present situation of the national forest resources, our next approach being intended to be a case study (the impact of human activities on the forests in Vrancea Mountains).

In the year 2005, this fund had an area of 6,391,000 hectares, 97 % being proper forests (6,233,000 hectares) that represented 26 % of the country area. Referring to the number of people, the forest quota per inhabitant was of 0.28 hectares/inhabitant (as opposed to 0.30 hectares/inhabitant in 1990). Compared to this average percentage of afforestation at the national level, the territorial grouping of forests is very diverse mainly due to the natural conditions

and man's intervention along the centuries. Thus, plains possess 10% of the total forest area, hills - 30% and mountains - 60% of this surface (*Figure 1*).

2. Forest distribution according to species

Forests have three main categories of functions:

a) functions of producing vegetable and animal biomass;

b) functions of protecting the environment:

-hydrographic function: it impedes surface drainages, enables infiltration, feeds springs, ensures the permanence and moderate regime of running waters' debits;

-antierosional function: retention of precipitations in the top crowns of the trees, slow thawing of snow, retention of water in the leaf litter, strong biological drainage and deep consolidation of soil; when forests grow rarer or disappear there take place processes of erosion, land slides, landfalls, especially in the case of lands on a slope, with weak stability;

-climatic function: reflection, decrease of radiations penetration and absorption, diminishing extreme temperatures, distribution of precipitations, reducing evaporation, increase of atmospheric humidity, decrease of wind intensity.

c) Social functions (*sanitary-hygienic, entertaining, esthetic, landscape, scientific*). One of the features of the present day world is the increase of the number of people who feel the need of escaping from the more or less polluted cities in order to spend their free time in the nearby green areas, natural parks and generally in the woods, where they can find the most pleasant space for moving and relaxing. This entertaining touristic pressure has determined the local authorities to put much importance on the proper planning of forested areas.

The evaluation of the social function of protection that woods have can be expressed by using **Pabst's** method: $V = (e \cdot u) / s$, where:

e = the cost of 10 trips that a visitor takes to the forest per year;

u = the number of inhabitants who visit that forest;

s = the area of that forest that has an entertaining function.

The application of the evaluation methodology to a significant number of woods (with entertaining function) in our country (Gh. Purcăreanu, I. Ceacovanu, 1975) has shown that the value of protection areas is much bigger (3 up to 20 times) than the value of annual wood production.

2.1. General aspects

In the counties that lie in hilly areas the afforestation percentage is of about 30%, while in mountainous counties it exceeds 40% (Bacău 40.1%, Covasna 43%, Argeş 41.4%, Gorj 43.6%, Hunedoara 44.3%, Caraş-Severin 44.6%, Vâlcea 46.3%; the most afforested county is Suceava – 51.7%). In the counties situated in the Romanian Plain and Dobrudja (the driest regions in the

country), the woods percentage varies from 3.3 to 10% of the county area (Teleorman, Ilfov, Ialomița, Brăila, Constanța and Galați). The main forest surfaces are concentrated in the Oriental Carpathians, the Meridional Carpathians and Banat Mountains.

One of the main features of our forests (that differentiates them in the European context) is represented by the special quality of certain woods and species that are endowed with a very high natural potential. These are the most famous:

- the spruce forests in the Oriental Carpathians which produce the sound wood (nowadays almost unique on the continent) that is used for special devices and musical instruments;

- the spruce forests in Dorna Depression (with trees which are higher than 55 meters);

- the spruce of Crucea-Broșteni, which has scored exceptional increases in the comparative plantations in Belgium, Denmark and Sweden;

- the spruce of Stâna de Vale (with a column-like shape and very wind-resistant);

- the fir woods of Urlătoarea-Broșteni, which at the age of 110 had an estimated volume of about 1,100 cubic meters / hectare.

- the evergreen oak of Ronișoara-Maramureș, of Runcu-Gorj, of Domnești-Argeș or the oak tree of Sinești-Iași and Pecica-Arad, which produce high quality veneers.

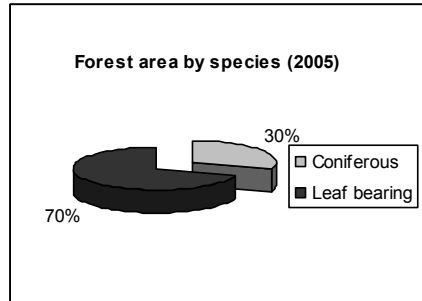
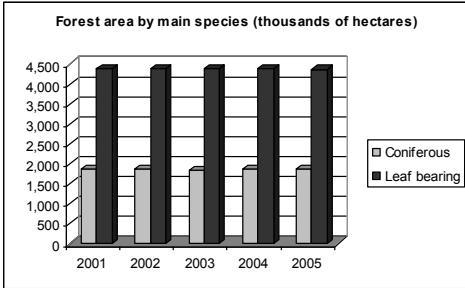
2.2 Coniferous forests (figures 2-6)

Spruces and *fir trees* can mainly be found in superior and middle mountainous areas, whereas *pine* and *larch trees* can go down to smaller altitudes. The vastest areas covered with resinous woods lie in the Oriental Carpathians (Suceava, Harghita, Neamț, Bacău, Maramureș, Mureș, Bistrița Năsăud), Curvature Carpathians (Vrancea, Buzău, Covasna), Meridional Carpathians (Alba, Argeș, Vâlcea, Sibiu, Brașov, Hunedoara) and Apuseni Mountains – where they occupy smaller surfaces. A century and a half ago (that is before starting to exploit resinous species “at choice”) spruces and fir trees used to occupy substantially larger areas than they do at the present.

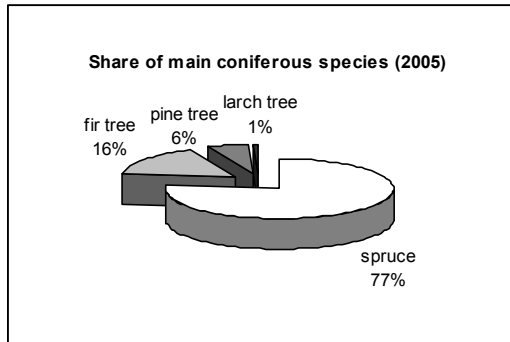
2.3. Leaf bearing forests (figures 2, 3, 5, 7, 8)

The beech tree represents the majority species in our forest fund (33%). Nowadays, Romania seems to be the country with the richest beech resources on the continent. For a long time beech trees were little used in industry, but at present they provide raw materials which are highly appreciated in the field of veneers, plywood, timber, furniture and parquet floors industry. Beech forests are concentrated in the Meridional Carpathians, in Caraș-Severin, Argeș, Gorj, Hunedoara and Vâlcea counties.

The evergreen oak and the pedunculate oak are extremely important industrial species, offering high quality wood for esthetic veneers. The evergreen oak occupies large areas in the South-West and West of the country (Vâlcea, Gorj, Argeş, Caraş-Severin, Arad, Bihor and Hunedoara) as well as in most



counties lying in the Moldavian Plateau and Transylvania Depression. The surfaces covered with pedunculate oak are much smaller, being located rather in plain forest regions (especially in Dâmbovița, Prahova, Ilfov, Timiș, Arad and Satu-Mare counties), as well as on the alluvial terraces and plains in Alba, Braşov, Mureş and Sibiu counties.



Figures 2-3-4

3.Types of forest property. Present forest policy in Romania

By adopting the *Law of Environemnt Protection in Romania* in 1995 and than the *Forest Code (Law No.26 of 1996)*, wich is the fundamental forest law, we can say that the status of woods in our country was completedm, at the same time regulating the process of forest production and the relationships between forestry and other econoic branches. According to the *Land Fund Law No.18 of 1991*,they tried to make a restoring act on private property by stipulating that forests could be returned to former rowners within the limit of a certain area, stating instead that they would have to be kept in the forest system.

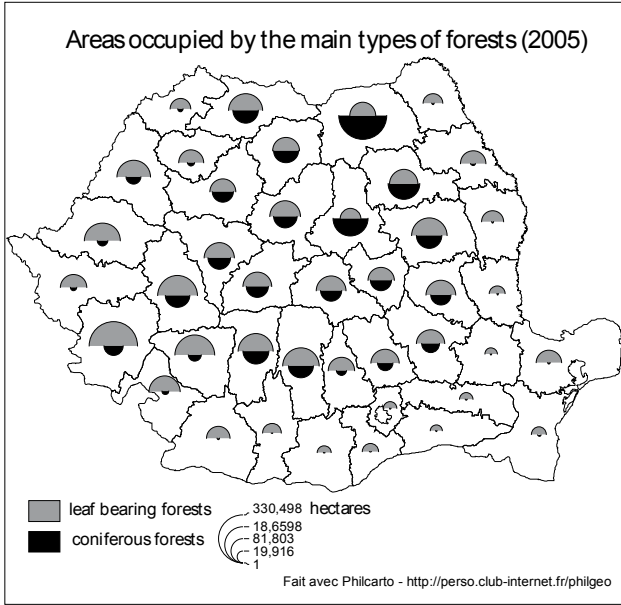


Figure 5

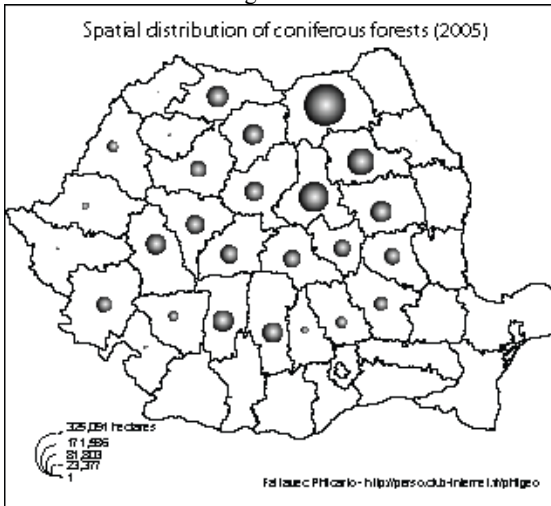
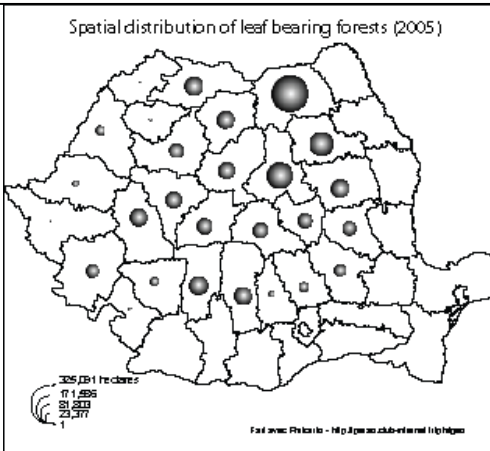
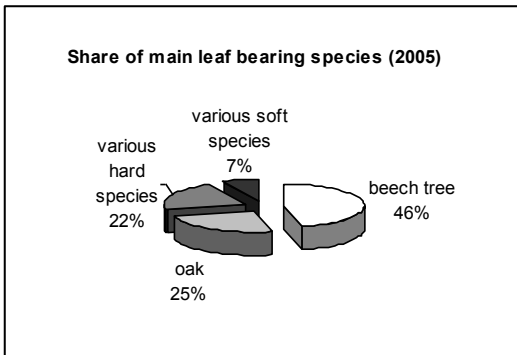
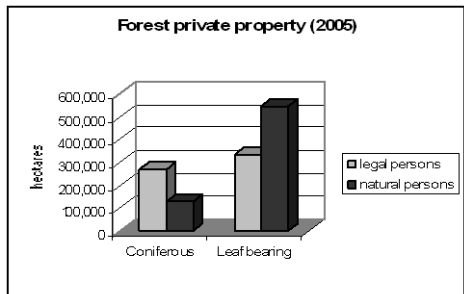
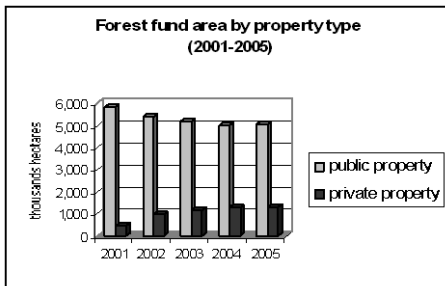


Figure 6



The Forest Code indicates the method of administering private forests, the obligations and rights these woods owners have, the attributions and responsibilities of the public bodies and local administration, but also the sanctions against those who bring prejudices to the forest.

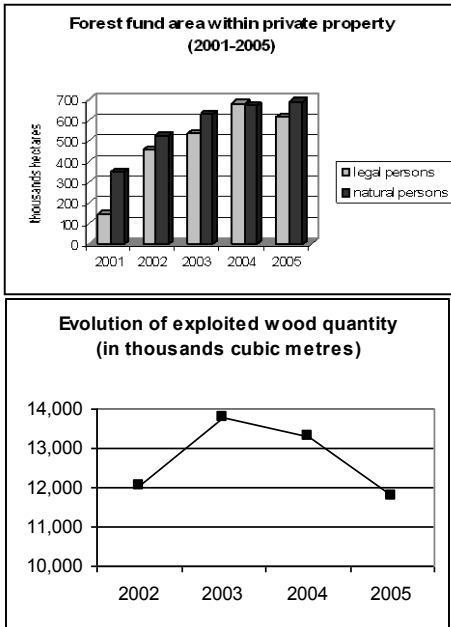
The same Forest Code establishes a series of **short term targets**, such as the ones for the period 2000-2005: increase the surface of national parks with 80,000 up to 120,000 hectares; improve the present structure of woods; intensively and extensively develop the forest fund so that in the year 2010 it will represent 28% of the country area (including protective belts).



Figures 7-8-9-10

Strategic actions of judicious woods management should include the necessity of **having control over the forest risk** by means of a series of measures, such as: keeping the integrity of the forest fund when changing the property regime; increasing the forest fund until it will get to an optimum level (35% of the country area) differentiated on land forms: 10% in plain regions,

25% in hilly regions and 65% in the mountains; afforesting degraded lands so



Figures 11-12

that in the year 2020 the number of afforested hectares will reach 300,000; planting a protective belt for agricultural lands: 2,000 km by the year 2010 and 10,000 km by 2020; delimiting and protecting the green regions around towns; ecologically reconstructing those woods that have been structurally degraded by natural and anthropic factors – 20,000 such hectares are to be reconstructed in the period 2000-2020 (Bran, 2002)

The private property forest fund is administered by its owners, who have the obligation to take care of these woods in accordance with the forest code and environment protection rules. Private forest fund owners have to comply with forest planning stipulations and to ensure forest permanence.

Whereas in 2001 only 8% of the woods area was in private property, the value increased to 21% in 2005 and continues to rise. The largest surfaces that are still in public property belong to Suceava, Caraș-Severin, Hunedoara, Neamț, Maramureș and Bacău counties (more than 200,000 hectares); as regards the administrative units with the vastest private property forest areas, Harghita (nearly 154,000 hectares) and Vâlcea (136,866 hectares) rank first. If we analyze the percentages of state-administered forests, the first positions are occupied by Tulcea, Brăila and Constanța, where 99% of the forests are included in this category, while as regards forest retrocessions, the leading counties are Harghita (66.5% of the woods are in private property), Vâlcea and Vrancea (51% each), Covasna (46.6%) and Sălaj (38%) (Figures 9-14).

4. Exploited wood volume (Figures 15-20)

Of all the factors that have sharpened the anthropic impact on forest ecosystems, it has come out that *illicit cutting of trees* (especially on private property forest areas) is the most destabilizing one. This aspect is pointed out by

the affected regions and wood volume losses as a first consequence of these actions that have got out of control.

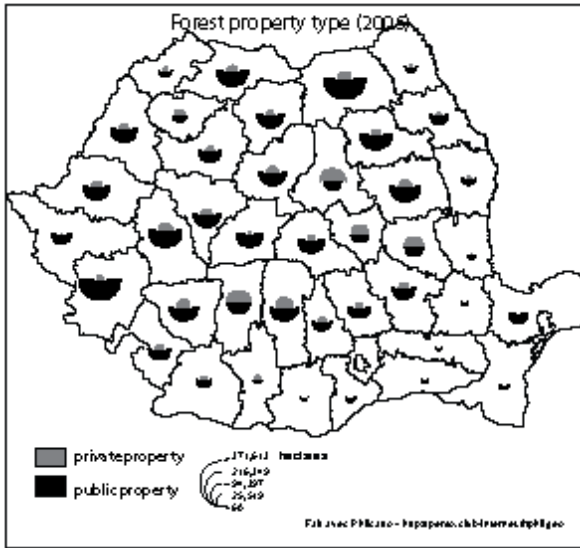


Figure 13

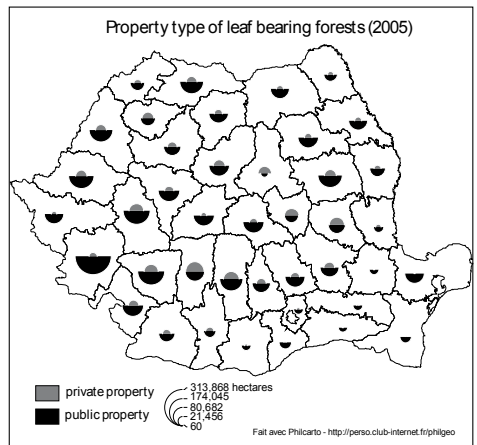
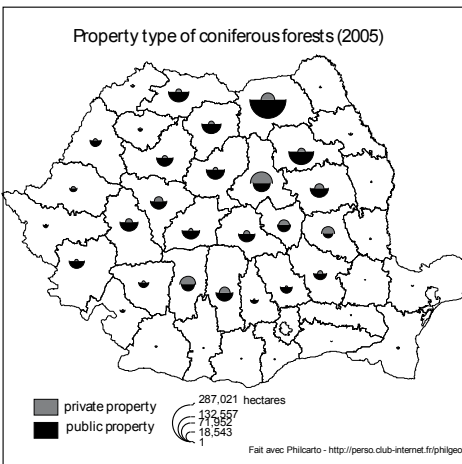
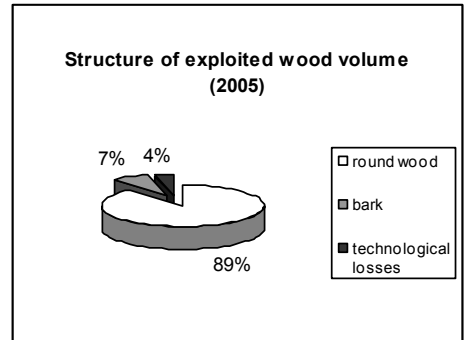
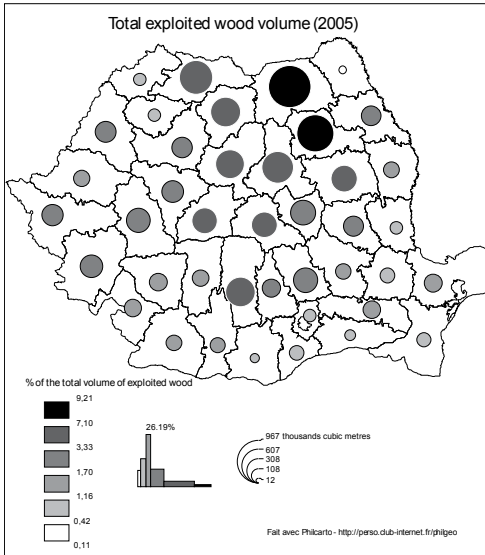


Figure 14-15

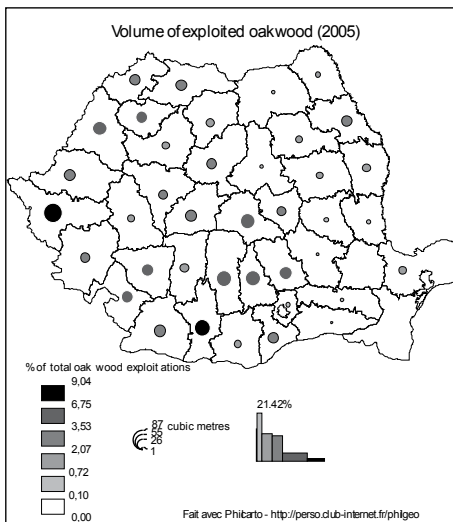
One of the most important aspects of **forest degradation** is connected to the fact it affects the tourist potential. A special situation is induced by the cutting of woods around balneal resorts and, generally, around settlements, which diminishes much the self-purification capacity of atmosphere surrounding them.



Another delicate point deals with the degradation of *forests of social importance* – those lying in the neighbourhood of the great urban centres, meant to tourism and recreation.

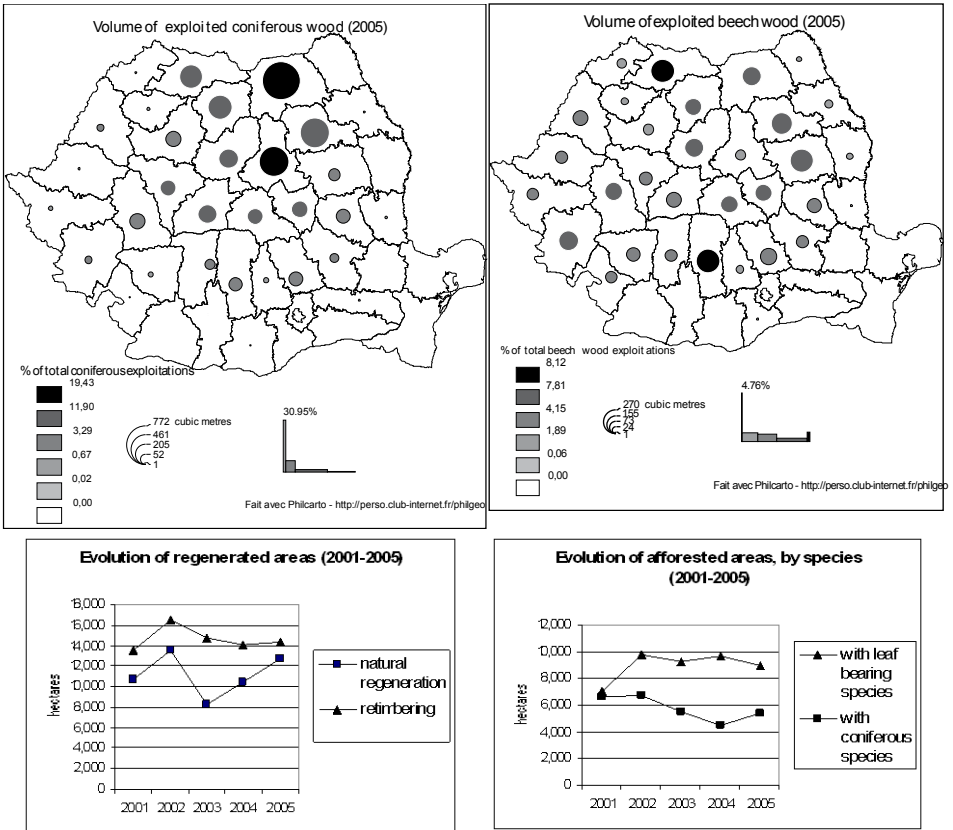
Of course, we cannot neglect the *esthetic pollution* brought about by industrial building sites, mine workings etc.

Figures 16-17-18



5. Forest regeneration

A survey on the health condition of the woods in Romania (O. Badea, M. Tănase, 2004) underlines the fact that, at the individual level, the spruce and the beech are the least affected species, the opposite side being represented by fir tree and some leaf bearing species such as the downy or Hungarian oak. The woods in the South and South-East of the country have been most damaged. At the international level, the intensity of forest damage is estimated in terms of the values of the percentage of notably defoliated trees. On the basis of this hierarchy, in 2003 Romania was included in the category of moderately affected countries, with a proportion of 12%. That is why forest regeneration is an absolutely necessary approach in order to preserve the natural patrimony. It is compulsory to go on with constant actions of afforesting degraded lands regardless of their property nature.



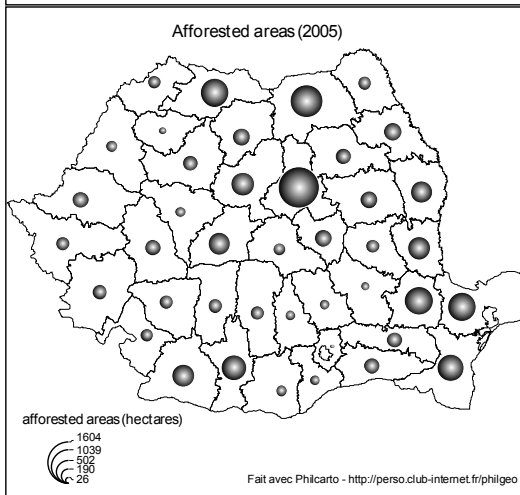
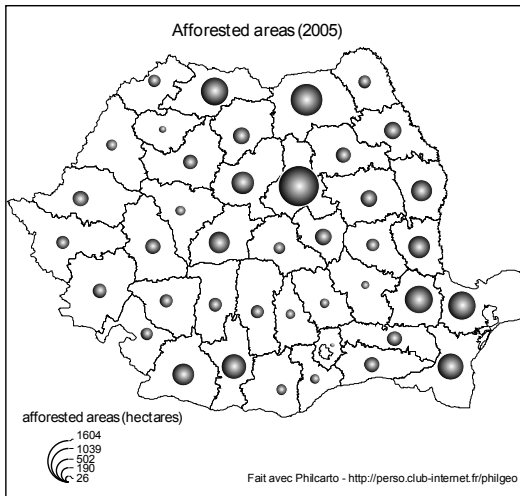
Figures 19-20-21-22

The National Forest Administration provides free material for planting and technical assistance for installing and tending these cultures. Moreover, those owners who afforest degraded lands and create protective belts for agricultural lands receive a premium due to the fact they contribute to improving the environment quality. At the same time it tries to solve out the difficult problem of providing the owners of these forests with timber (wood for rural constructions, fire, household goods and handicrafts). The National Forest Administration has the obligation to adopt proper measures in order to tend forests, regenerate forest vegetation and perform ecological reconstruction workings when needed. In afforestation actions they use reproduction materials from seeds reservations and other sources registered in the national catalogue of reproduction materials.

Workings of ecologic reconstruction, regeneration, sapling-covered areas and plantations maintenance and stands tending are executed in accordance with

programs established for each forest planning. The average reforestation cost is about 6,000 USD / hectare, whereas in the case of special rehabilitation workings the price can rise to 10,000 USD / hectare. There is a series of regional projects, such as: recovering the degraded lands that cannot be agriculturally used in the Moldavian Plateau and certain regions in Galați, Vrancea, Buzău and Prahova counties; planting protective forest belts in desertification and drought-affected areas in the Moldavian Plateau, Dobruđja, Bărăgan and South Oltenia.

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On the whole, the diminution of the forest patrimony brings prejudices to the tourist potential and prevents tourism from developing in an ecological direction. In the context of sustainable development, touristic activities cannot go on without taking into consideration the risks induced by the intensification of economic activities on the natural environment. Despite the natural potential Romania disposes of, tourism is much underdeveloped compared to the existing possibilities. And, if the Romanian seaside was the first to experience this regress, **mountainous regions** are still attractive, including from the angle of agrotourism.

Conclusions

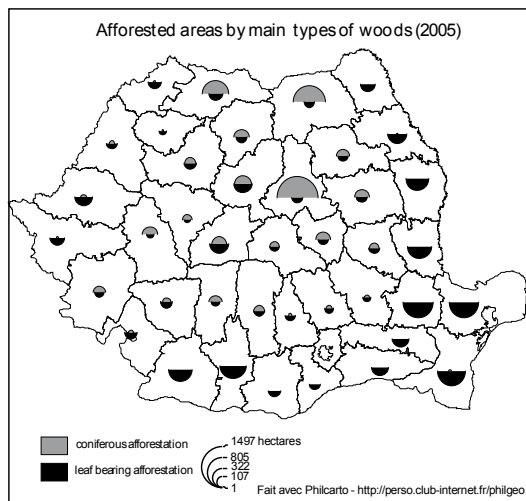
Forests play an important role in the life of local communities, that's why it is necessary to find alternative strategies of life standard improvement without endangering the existence of woods. There are some clashes of interest referring mainly to the modality (regime) of using forest resources, the losses caused by deforestations etc. Most of the time, the local people's income is small and, in addition to this, the local communities have few ideas on the possibilities of making their situation better. Forests that have come to maturity represent a source of living for a great number of families, sometimes being in fact the only financial source. Under these circumstances tourism could become a viable alternative in using forest resources. The local communities could take advantage of the forest fund in order to create a **touristic product**. To accomplish these projects, it is necessary to have good communication between all those who are interested in a certain area – so that they

can preserve the traditional way of living in natural areas and, at the same time, properly develop touristic activities. Third millennium tourism seems to be more and more marked by climate change and concern for the planet. Romanian tourism has also turned to nature, village world, natural food and rural cultural values. All potential tourists appreciate the **safety** of their destination. How safe can one feel in a region where the environment, water and food are polluted? In this context, how can we talk about satisfaction and desire to come back?

In order to maintain the balance between tourists' satisfaction and growth possibilities, the development of a touristic area must take into account such aspects as keeping its ecologic integrity and rational exploitation of its resources. It is not by chance that specialists talk about the concept of "*sustainable tourism*", which refers to promoting those forms of tourism that comply with natural, social and economic environment integrity and also provide the future generations with natural and cultural resources. At present, **the financial cost of sustainable tourism** (including ecotourism) seems to be high. Instead, trying to realistically foresee the future, we will find that the

expense of ecological reconstruction is even heavier and the negative effects on the environment can be irreversible to a great extent.

Figure 24



References

- Badea, O., Tănase, M.** (2004) – *Starea de sănătate a pădurilor din România la nivelul anului 2003. Dinamica acesteia în perioada 1990 – 2003*, Analele ICAS, vol. 47, serie 1, pg. 205 – 217, Ed. Tehnico – Silvică, București.
- Borlea Gh.** (și alții) (2004) – *Strategii de stimulare a utilizării durabile a resurselor forestiere ca materii prime regenerabile și nepoluante*, Analele ICAS, vol 47, serie 1,

Ed. Tehnico – Silvică, București.

Bran, Florina (2002) – *Componenta ecologică a deciziilor de dezvoltare economică. Studiu de caz (silvicultură și turism)*, Ed. ASE, București

Bran, Florina (2002) – *Degradarea ecosistemelor (silvicultură și turism) – implicații economice*, Ed. ASE, București

Giurescu, C. (1976) – *Istoria pădurii românești din cele mai vechi timpuri până astăzi*, Ed. Ceres, București.

Sârbu, I., Ștefan, N. (1997) – *Resurse forestiere*, Editura Univ. „Alex.I.Cuza” Iași

Vlad, I. (și alții) (1997) – *Silvicultură pe baze ecosistemice*, Ed. Academiei Române, București