

Forest Protection and the Legal Regime of the National Forest Organization and Management

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Abstract: - The European Commission adopted in 2010 a Green Paper establishing the options for the approach on the forest protection and awareness on the forest resources and their status at the level of European Union, called „On Forest Protection and Information in the EU: Preparing forests for climate change”. The Green Paper sets the main challenges of the European forests, presenting the existing information systems in the forestry field and the instruments available for the forest protection, but also measures of sustainable management of the forests in order to protect them. In order to apply these measures, the article describes the implementation methods of the forest policy in few European countries, both from the European Union (Austria, Denmark, Germany, Sweden and Romania) and from outside (Norway), countries that have significant forest surfaces.

Key-words: - Forest protection, National forest, Organization of the national forest, Management of the national forest, European law, Comparative legislation

1 General considerations

The forests play a crucial role in storing the greenhouse gases, such as the carbon, this important function contributing to the reduction of the global warming. Unfortunately, the forests are destroyed in unprecedented quantities as a result of the illegal forestry exploitation, the agricultural expansion, the population's pressure, the industrial projects and the large-scale infrastructure, as well as the national policies subsidizing the conversion of the forest for other purposes. This destruction represents a serious threat for the worldwide environment health.

The United Nations want the special responsibility that the people have on the forests to be placed at the center of the world's attention and in this respect it declared the year of 2011 “The International Year of Forests”.

The forests represent a significant natural source helping the countries to improve their wellbeing. More than 1.6 billion people depend on the forest for a part if their existence means. The forests, except for the wood, offer many other products such as fruit, medicinal plants, fibers, rubber etc. of which value is immeasurable.

The forests provide environmental services, such as the regulation of the water supply and the prevention of the soil erosion, having a huge impact on the agricultural production and people's health. The forests also offer important habitats for the wild fauna. The experts estimate that 70% of all terrestrial plants and animals live in forests. The forests play a crucial role in storing the greenhouse gases, such as the carbon, this important function contributing to the reduction of the global warming.

Moreover, among the current issues of the human kind, the climate change, caused by the accumulation of the greenhouse gases in the atmosphere, as a result of the use of fossil fuels and deforestations for the energy production, is a big concern. Such climate changes are, at the same time, a major and additional threat on biodiversity. It takes place in multiple areas, but especially with respect to the capacity of adjustment and migration of the plant and animal species.

With respect to the forest and its administration, according to „The dictionary of forestry” [1], the forestry is defined as „the science and art to control the foundation, raise, composition, health situation

and quality of trees in order to sustainably satisfy the society's needs".

Therefore, the forest management is strictly conditioned by the society's protection or production needs, but the management must mandatorily observe the principle of the sustainable development.

In conclusion, the forestry must ensure a sustainable management of the forests, term proposed in 1993 (Helsinki, Finland), within the Ministerial Conference on the Protection of Forest in Europe as being "the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems" [2].

This description clearly emphasizes the importance and obligation of finding a technical solution whereby the forestry ensures the preservation of biodiversity in the managed forests. Even if the highest direct and short-term financial benefits generally result from the capitalization of the wood, the forestry has a much larger purpose, in the same way that the forest, as an assembly, has a much more complex role than the one to produce wood. The recreation and the protection functions that it exercises are as important (in certain cases even more important), even if they are more difficult to be quantified in financial terms.

2 Functions and status of the forests

According to the United Nations for food and agriculture (FAO) [3] "forest" means a land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 ha). The trees should be able to reach a minimum height of 5 m at maturity in situ, and "other forested lands" represent a land either with a tree crown cover (or equivalent stocking level) of 5-10 percent of trees able to reach a height of 5 m at maturity in situ; or a crown cover (or equivalent stocking level) of more than 10 percent of trees not able to reach a height of 5 m at maturity in situ and shrub or bush cover.

The European forests may be classified in five bioclimatic areas: boreal, temperate ocean, temperate continental, Mediterranean, and mountain areas, compatible with the forestry typology of AEM, elaborated to ensure an orientation for the political decisions [4].

With respect to the environmental balance, the main functions of the forests are:

- they keep and ameliorate the air quality, being an oxygen source and maintain its humidity;
- they protect the soil by preventing the erosion and desertification and contribute to its fertility;
- they participate to the hydrologic circuit;
- they preserve the biodiversity;
- they influence the climate by retaining and storing the carbon dioxide and the temperature regulation;
- they ensure the protection against storms, inundations and the extreme fluctuations of the local climatic standards;
- they reduce the atmospheric pollutant concentration and the spread of diseases transmitted by insects.

Except for the environment functions, the forests have a large series of social-economic functions, ensuring work places, income and raw materials for the industry and for the energy resulted from regenerative sources. The primary forestry industries, that is the ones producing raw materials such as lumber, sawdust, wood panels, paper paste, fire woods, splinters and tree rind for bio-energy, cumulate 2 million employees, the majority within the small and middle-sized companies and they have a turnover of over EUR 300 billion. At the same time, they offer the raw materials for sector such as: furniture industry; construction industry; typography and packaging industry; manufacture industry. Except for the wooden products, the other goods and services (recreational activities, tourism etc.) offered by the forests generate in certain European regions more income than the sale of wood.

Nevertheless, the agricultural expansion, the industrial needs, the population increase, the lack of free land and the consumption request are main reasons of deforestations and forest degradations. These actions have various negative effects on the environment (especially on the biodiversity and on the climate, being known that the deforestations are responsible for approximately 20% of the total carbon dioxide emissions), but also on the economy and social life (especially on the standards of living because the forestry resources ensure, to a certain extent, the existence of 1.6 billion people, and 60 million aborigines directly depend in order to survive).

On the territory of the European Union, the forests and other forested surfaces cover approximately 176 million hectares, representing 42% of the terrestrial surface of the EU. The forests of the European Union constantly extended during the last 60 years, currently representing 5% of the worldwide forested surface. The majority of forests in the EU increased the wood volume and the

carbon stocks, thus absorbing a higher quantity of CO₂ in the atmosphere. Recent information shows that, at the global level, the deforestation (especially for the developing countries) and other modifications of the land purpose are currently responsible for approximately 12-15% of the global CO₂ emissions.

The average temperature in Europe increased with approximately 1-2° C during the last century, and this fast rhythm of the climate changes due to the human activities exceeds the natural capacity of adjustment for the ecosystems. Therefore, entire regions will not be adequate anymore for the development of certain type of forests, which will determine changes in the natural distribution of the tree species and modifications in the existent bush growing. It is estimated that the extreme phenomena such as storms, forest fires, droughts and warming waves shall become more and more often and/or more serious, increasing the pressure over the forests.

This is why the European Commission adopted on 1 March 2010 a Green paper establishing the options for the European Union's approach on the forest protection and the awareness on the forest resources and their situation, called "On Forest protection and information in the EU: Preparing forests for climate change".

According to a Communication of the European Commission, the opinions received from the public, member states and EU institution, as well as from other parties interested in this Green Paper, shall help the Commission to establish the necessity of additional actions from EU. In this respect, European Commissioner for environment, Janez Potočnik, said: „Europe's forests are a precious resource that must be protected against the harmful impacts of climate change and biodiversity loss. Their wide range of social, economic and environmental functions means that the stakes are high. We need to explore what value European action can add to national efforts to safeguard forests and maintain reliable, coherent and up-to-date information about them” [5].

Moreover, Connie Hedegaard, European Commissioner for Climate Action, said: “As huge stores of carbon, forests will play a critical role in efforts to keep global warming below 2°C. Ensuring that Europe's forests can continue to perform all their functions is essential to the EU's climate strategy. I very much welcome the timely launch of this debate. The inputs we receive will help us to design effective EU policies related to climate and forests” [6].

3 Contents and objectives of the Green Paper

The Green paper establishes the main challenges of the European forests, presenting the existing information systems in the forestry field and the instruments available for the forest protection, raising a series of pertinent questions for the preparation of some future political options. This document represents the continuance of the White Paper on the adjustment to the climate changes adopted by the Commission in April 2009.

As the competency on the politics in the forestry field firstly belongs to the member states, the debate should be based on the way the climate changes modify the forest management and protection in Europe, as well as on the way that should be considered for the evolution of the EU policy in order to increase its contribution to the initiatives of the member states.

3.1 The impact of the climate changes on the forests

The fast rhythm of the climate changes exceeded the adjustment capacity of the forests. The fast global warming determines modifications regarding the adjustment of certain types of forests in certain regions, as well as the vitality decrease of the existing forests and the change in the distribution of natural species. At the same time, it is estimated that the incidence and the seriousness of certain extreme meteorological phenomena (storms, forest fires, droughts and warming waves) shall increase. For example, during the last 10 years, the frequency of the destructive storms increased and became the most devastating element in the temperate Europe, causing damages of over 50% of all damages in the forestry sector. Except for these, the increase of the droughty periods, the increase of the temperatures and the intensifications of the wind may increase the probability of forest fires and their aggravation. Besides the victims and the material damages, the fires contribute to the increase of the greenhouse gasses emission quantities and to the reduction of the soil fertility due to the loss of the organic substance, affecting the preservation of biodiversity.

The climate changes may also determine the increase of the damages produced by the pathogen agents and forestry pests, the occurrence of new toxic infestations, either introduced by men, or determined by natural migration, as well as the change of the population dynamics.

The Green Paper emphasizes the fact that overall the projections of the net effects of the climate changes on the populations of forestry species in EU on medium term are complex.

In the north-eastern Europe, where the water reserves are less limitative in general, the increase rates may be intensified by the conjugated effect of the carbon dioxide level increase in the atmosphere of a longer vegetative period and of higher presence of the nutritive substances, as a result of the atmospheric sediments and of the additional mineralization of soils.

In southern Europe, where the water availability is a critical factor, the more frequent summer droughts may determine the reduction of the productivity and of the resistance capacity. During the last decades, in the Mediterranean area, following the drought and the warming waves, it was ascertained the degradation of forests by the vitalization decrease and death of some pine and oak species, generally explained by the drier and warmer climate conditions and often combined with biotic factors (diseases and pests).

The climate change may also determine:

- the increase of the damages determined by the pathogen agents and forestry pests;
- the occurrence of new exotic infestations, either introduced by men, or determined by natural migration;
- the change of the population dynamics.

3.2 The instruments available for the forest protection

Currently, according to the Green Paper, the member states have many instruments whereby they may ensure the forest protection (they are mandatory or they are used by own initiative):

- national forestry programs;
- operational standards in the forestry field;
- the complete and systematical national forestry inventories (NFI)
- the cadastral registry systems, significant instrument for the development of the social and economic functions of the forests and for the restriction of the illegal conversion of the forests;
- the cartography of the forest functions and the landscape and regional planning;
- the forest management requirements, including the management plans and sometimes specific management obligations regarding certain forestry functions;
- the production and use requirements of the reproduction material;

- the national action plans based on the Convention on biological diversity (CBD) or the United Nations Convention to Combat Desertification (UNCCD);

- the support schemes for the forest owners, natural persons and associations made of these owners;

- the legal provisions and motivations in order to reduce the property fragmentation, possibly associated to the motivations for the cooperation between the forest owners;

- the authorization regimes involving the approval of the competent authorities for the gathering of the wood;

- the restrictions on the conversion of the forestry lands for other purposes.

At the level of the European Union, the only strategic instruments in the forestry field are the following:

- the EU strategy on the forest sustainability (FS UE - adopted by the Resolution of the European Council No.1999/C 56/01 dated 15 December 1998);

- the EU action plan on the forests (FAP UE) – COM(2006)0302;

- the Communication on innovative and sustainable forest-based industries – COM(2008)0113.

At the same time, few political domains approach the forests or the forestry industry:

- within the Natura 2000 network, the forestry habitats represent almost 20% of the assigned terrestrial sites;

- the The Effort Sharing Decision 406/2009/EC D and the Directive 2009/29/CE on the commercialization scheme of the emission certificates (Directive EU ETS - The EU Emissions Trading System) include provisions whereby the Commission assesses the options to include LULUCF (Land Use, Land-Use Change and Forestry) in the EU engagement to reduce the greenhouse gas emission;

- the Regulation (EC) no. 1698/2005 of the Council on the rural development (2007-2013) is the main financing instrument of the measures in the forestry field;

- the Directive 2009/28/EC on the promotion of energy from renewable sources (RES-D) established the mandatory objective for the EU to reach a 20% quota energy from regenerative sources until 2020 (including from biomass generated by forestry);

- the Action plan on sustainable consumption and production and the sustainable industrial policy (SCIP/IP) aims at the improvement of the energetic and environmental performances of the products.

The policy of public ecological acquisitions for public institutions and the revises system of ecological labeling are component of this approach;

- the Community plant health regime (CPHR) introduced by Council Directive 2000/29/EC aims at the prevention for the extension of the alien forest species and organisms with damaging effect on forests;

- Council Directive 1999/105/EC of 22 December 1999 on the marketing of forest reproductive material

- The 7th Research Framework Program (FP7) launched the concept of European Technology Platforms gathering the interested parties to define and implement a strategic research agenda. At the same time, it finances the research on the sustainable production and management of the biological forestry resources and the estimation of the future ecological changes;

- the Cohesion policy supports investments in renewable energy and cofinances programmes that preserve and promote natural areas and biodiversity;

- various instruments supporting the member states in the case of the important disasters, including in the case of storms and forestry fires (the EU Solidarity Fund; the EU Civil Protection Mechanism; the EU approach on natural and man-made disasters).

3.3 Forest management and use

For the sustainable forest management with the purpose to protect them, based on the principles of the Ministerial Conference on the protection of forests in Europe (MCPFE) and the policies of the member states, with the EU support, the Green Paper recommends the following measures:

- the increase of the forested surfaces by the forestation of new areas and reforestation of the deforested areas giving birth to new forests able to intensify the sequestration of the carbon and to increase the biodiversity in the adequate areas, to protect the human dwellings and the cultural landscapes, increasing at the same time, on the long-term, the productive efficiency of the vegetal carpet;

- the prevention of fires, by the combustible material management, the constitution and maintenance of brick arches, footways, water supply points, the perfect selection of the tree species, the establishment of fix monitoring points for forestry fires and the supply of communication equipment to prevent the fire generation;

- an adequate forestry planning, contributing to the adjustment of the forest composition by favoring and preserving the most adjusted tree species and

varieties within one species of a better genetic variability;

- the sustainable mobilization and collection of woods, as well as the investments in the forestry operations meant to increase the stability and capacity of forests to deal with the impact of climate changes, including the reduction of risks of forestry fires and storms and of pests;

- the active favoring of the tree species better adjusting to the local conditions and to the increase conditions under the context of the climate changes, including by the use of the natural regeneration in the cases when such fact is possible and recommendable;

- the prevention of the introduction, by the international commercial exchanges, of the new diseases and pests.

3.4 Information in the forestry field

The information on the forestry situation and resources is essential to ensure that the decisions made in the forest field bring the best benefits at all levels, from the social-economic and ecological point of view. Moreover, EU has reporting obligations to The United Nations Framework Convention on Climate Change (UNFCCC) and Convention on biological diversity (CBD) needing reliable and coherent forestry information systems. Currently, according to the Green Paper, the information on the forests is stored at different levels:

- the national forest inventories (NFI) have the most information on the forest resources;

- the integrated administration and control system (IACS, co-funded by the EU rural development fund) is used for the management and control of the direct payments and of certain measures taken at the local level within the rural development policy (agricultural-environmental forestry measures)

- the monitoring of the forest situation in EU by the implementation by the regulation Forest Focus[7] (for the period 1987-2006) and FutMon project [8] (starting with 2007).

- the European data and information systems on forests (Forest Action) including The European Forest Data Centre (EFDAC), the European Forest Fire Information System (EFFIS) and the European Forest Information and Communication Platform (EFICP).

- the classification of forests performed by the European Environmental Agency.

- the annual statistics on the production and trade with wood and wood products in EU and the

European Free Trade Association (EFTA) countries are provided by Eurostat.

On 11.06.2010, the Council adopted the conclusions on the preparation of forests for the climate changes (document no. 11037/10). The document called "Preparing forests for climate change: Forest protection and information in the EU" considers that the efforts must be continued and the options must be extended for the cooperation and coordination at the EU level within the EU forest strategy and the EU action plan in the forestry field, considering the subsidiary principle. Moreover, it emphasizes the need of a better adjustment of the forests under the pressure of the climate changes that may endanger the multiple functionality of the ecosystems and underline their crucial role attenuating the climate changes and adjustment to them. The document emphasizes the important role of EU in fighting against the deforestation, the forest degradation and the desertification, in promoting the sustainable management of the forests and the forest protection and rehabilitation inside and outside EU, the development of the sustainable agriculture to reduce the pressure on the forestry areas by changing the purpose of the lands and the use of the specific instruments.

4. The national forest organization and management

The sustainable forest management guarantees their biological diversity, productivity, regeneration potential, their vitality, as well as the capacity to satisfy the economic, ecological and social functions pertinent at local, national and international level, without determining prejudices to the other ecosystems.

This is why we consider that it is interesting to present the implementation methods of the forest policy in few European countries, from the European Union space (Austria, Denmark, Germany, Sweden and Romania), as well as outside it (Norway) of which surfaces covered by forests are more significant.

4.1 Austria

Thus, in Austria [9, 10], one of the most forested countries in the central Europe, the total of the forested area is of 3.9 million hectares, representing 47.2 % of the country's territory [11], but only around 16% of the Austrian forests are the state's

property and management, being part of the federal forests.

The legal basis of the forestry domain represents the Forestry Act no. 440 of 3 July 1975, with the subsequent amendments, the federal Forests Act no.793/1996, with the subsequent amendments, as well as the federal Agricultural Act no.83 of 15 July 2004. This latter one constitutes two institutions with attributions in the forestry field:

1) The federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFWG), federal authority until 2004 under the management of the Ministry for Agriculture, Forestry, Environment and Water Management supports the Austrian government in its research objectives and has, among others, the following attributions:

- performs surveys on the status and development of the Austrian forestry systems;
- periodically performs the inventory of the national forest;
- performs studies on the obligation fulfillment imposed by the EU member state and of the ones undertaken by the international Treaties;
- monitors and collects information on the greenhouse gases;
- performs studies and researches related to the natural risks, landscape, preservation, social-economic aspects in connection with the forests, sustainable forest and habitat protection and development;
- plans the use of the forestry lands;
- research in soil quality, soil ecology, land and laboratory tests;
- collection, management and evidence of the cartography data;
- stabilization and scientific use of the national forestry reserves;
- application of the measures for the protection of the genetic resource protection *in situ* and *ex situ*;
- performs surveys on the causes and the degree in which the forests and forestry ecosystems are affected, especially the ones related to the air pollution;
- training people in the forestry field etc.

Starting with 2004, the Center becomes autonomous non-profit institution with own legal regime.

2) Federal Forest Office, federal authority of the Republic of Austria, under the authority of the Federal Ministry for Agriculture, Environment and Water Management, responsible for the implementation of the provisions under the federal Law on the plant protection and under the federal Law on the genetic material in the forestry field. The office supports the Austrian authorities in

fulfilling the legal and political competencies in the following domains: forests, hydrographic basins, protection against the natural catastrophes, biodiversity and landscape development. The federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFWG) supports the Federal Forest Office in applying these responsibilities by supplying the necessary resources.

In Austria, almost three quarters of the forests are private property, being managed by their owners. One third of the total area of the forests is under the management of big enterprises with specific profile.

The structure of the forestry real-estate ownership is divided at the federal level, as follows:

- approximately 50% are private properties with forestry areas under 200 hectares;
- 22% are private forests with forestry areas above 200 hectares;
- 15% of the forest areas represents the federal national forest under the state's property, institutionally managed by Österreichische Bundesforste (ÖBf), the most important management authority dealing with the national ecosystems, representing 10% of the total surface in Austria. Moreover, the institution manages at the federal level the fisheries and hunt, the main activity being the sustainable management, the species preservation, the nature and environment protection;
- 9% of the forests is represented by the commune's forests, 2% is the municipality's property, and 2% is the property of the provinces.

The economically use of the wood raw material insures income for a big part of the forest owners. This use is based on the principle of sustainable management, according to which the cut wood included in the forestry exploitation process cannot be more than the increase of the wood mass.

One of the characteristic stipulated by the specific national legislation is the one that, irrespective of the owner, anyone has the right to spend the free time for recreational purposes (trips, jogging etc.) in the areas with forestry vegetation. Nevertheless, the driving on the forestry roads, camping during the night, tent installations or the horse racing activities are allowed only by the owners' agreement. The forest owners' rights and obligations are stipulated by the specific laws.

At federal level, there are three forest owner associations in Austria, two of them being members of some international associations in this field:

1. The Chamber of Agriculture and Forestry: the central organization of the agricultural chambers in each of the 9 provinces. The association of the

owners of agricultural and/or forestry lands within this institution is an obligation by law. Thus, all the forest owners are members of this association.

2. The Farm Association with forestry profile in Austria (Waldverband Österreich) and 8 regional associations: organizations with forestry profile within the agricultural chambers. The capacity of member is voluntary. It has 52,100 members, forest owners, holders of 810,000 ha of forest.

3. The Association of farmers and forest owners in Austria (Land & Forstbetriebe Österreich) includes 7 member organizations. It is the most representative forestry organization in Austria. The capacity of member is voluntary. It has 600 members, owners of 800,000 ha, representing 85% of the forestry surface and 15 % of the agricultural surface in Austria.

Österreichische Bundesforste (ÖBf) was founded in 1925, as an organization with lucrative purpose; it is the manager of the natural resources, performing its activity by the decentralized structures. After its reorganization, in 1997, becomes a joint-stock corporation, paying annually for the right to manage these resources to the state budget, compensation for usufruct in the amount of 50% of the net profit. The only shareholder of the company and the only owner of the lands under its management is the state. The incomes generated by the sale of the properties are reinvested in the acquisition of lands to maintain the ÖBf portfolio. The main activity is the forestry management, additional activities being performed in the real-estate and services fields.

4.2 Denmark

The forests in Denmark cover approximately 486 000 ha, representing a percentage of 14% of the total surface [12]. 72% of the national forests are private property, only 28% being public property, the majority being state forests. 85% of the national forests are registered as belonging to the national reserve, the change of the use category and purpose being prohibited by the law.

The current legal basis is represented by the Forest Act no.453/2004 [13]. The first regulation on the management and preservation of the Danish forests were adopted in 1805. The Danish Forest Act 1997 had four major objectives, afterwards taken over by the current law:

- preservation of the Danish forests;
- improvement of the forestry sector stability, of the property and productivity;
- stimulation of the extension of the forested surfaces, of the amelioration perimeters and of other categories of forestry vegetation;

- consolidation of the consultancy and information services on the use of the wood mass and forestry management.

The general objective may be summarized as the one to protect the forestry resources and the production potential of the forests, starting with 1989 the attention being focused on the rational use of the forests and on the connection between nature, national forestry patrimony and recreational activities.

The concept of multiple-use forestry was introduced by the law in 1997, as central pillar, the specific provisions imposing the obligation of its application in the forest management. All the subvention schemes supporting the specific activities were conditions by the application of the multiple-use principle in the forestry management.

In Denmark, the forestry sector is under the jurisdiction of the Ministry of Environment. The responsibility is delegated to the Danish Agency of Forest and Nature, managing 19 territorial units and managing 24% of the forested areas and the state forests. The Ministry of Environment is served by three public research institutions, with relevance in the forestry field. Among the ministries involved in the forestry management is the Ministry of Food, Agriculture and Fisheries especially in the issues related to the coordination of land use and vegetal genetic resources. The international cooperation is the main competency of the Ministry of Foreign Affairs, the activity performed together with the ministries with economic attributions being relevant under the conditions of the economic framework and potential provided by the forestry sector.

The 19 administrative territorial units of the Denmark fulfill a significant role in the forestry management, being responsible and having the authority in compliance with the legal provisions on the nature protection and on the national planning, especially in establishing the areas under the possible forestations.

The private forest owners are organizations having various association forms at the local and national level, supplying consultancy services and practical assistance in the owners' activities. Such consultancy services are partially financed by the state. Moreover, a large series of NGOs are active in the debates on the forestry policies, especially the Danish Society for nature preservation, the environmental organizations, the Danish Hunting Society, the Danish Ornithological Society.

The Agency of Forests and Nature is in especially in charge with ensuring opportunities related to the performance of recreational actions in the nature and the supply of public information

related to nature and rural activities. The Agency is also responsible for the creation, preservation and restoration of the Danish rural patrimony, working together with management authorities for nature, national parks, forests, managing approximately 200,000 ha of forests and rural surfaces belonging to the Ministry of Environment. The Agency cooperates with natural persons, owners of lands, environmental organizations, and with legal entities developing activities in this field.

One of the major objectives of the agency is the one of ensuring a strong basis for the local authorities to support the nature, in this respect developing many partnerships with natural and legal persons, the constant dialogue with the land owners being considered the key factor in achieving the objectives related to the creation, preservation and restoration of the Danish rural space.

4.3 Germany

The total forested area of Germany [14] is of 11 million hectares, representing a percentage of 31% of the country's territory [15]. The 11 million hectares of forest place Germany on the first place in Europe in terms of forestry surface.

Only an insignificant percentage of approximately 3.7% of the Germany's forests are managed at the governmental level, and 29% of the federal forests are under the ownership, management and responsibility of the lands.

Germany is a federal state, divided in 16 lands, and at the federal level, the legal basis of the forest management is represented by the Federal Forest Act 1975, with the subsequent amendments.

According to the Constitution, the management of the forestry field is under the exclusive attributions of the lands. For this reason, there is no official and centralized statistics at the federal level, specific annual data and surveys being obtained from studies, out of each the most significant ones are based on the reports of the Federal Ministry for Food, Agriculture and Consumer Protection, of the research centers in the forestry field, of the Federal Office of Statistics in Germany and of the National Forest Inventory - NFI.

The federal forests have the following structure of the ownership, being divided as follows [16]:

- 44% represent the forests under private ownership, according to the statistics, the average of the areas owned by the over 1,000,000 private owners, being of 4.7 hectares;

- 33% of the forested areas represent the state forests, managed at the federal governmental level (3%), as well as the land level (30%).

- 20% of the forests are represented by the forests managed by the communities and towns;

- 3% forest of the escrow company.

The management of the state forests is performed by the 16 different structures, corresponding to the 16 lands of Germany. There are 2 institutions managing the forests at the federal level: one of them has as main attribution the governmental management of the state forests and is under the control of the Ministry of Finances, the other is the agency coordinated by the Ministry of Food, Agriculture and Consumer Protection, being responsible of the forestry policy and specific legislation.

Generally, these institutions ensure at the state level, three sections of the forestry management:

1. the management of the state forests;

2. the control and supervision of the private forests;

3. the consultancy and promotion for the private forests.

At the level of the lands, there are more levels of authority:

- level 1 – the State Department of the Forests Management within the Ministry of Agriculture;

- level 2 – Directorates acting as superior authorities for the fulfillment of the regional attributions (or at the level of Corporations/Forestry Directorates of the communes exercising its competencies as collegial authorities responsible for the forests of the corporate/communes; The Directorates (or Directions) are responsible for the all issues on the forestry of the companies/communes. These units are organized and operate as collegial authorities. They are managed by three representatives of the Administration of the State Forests, three mayors representing the communities owning forests, and a representative of the authority superior to the public administration.);

- level 3 – regional – includes tens of forestry offices covering the entire territory of the land.

The Administration of the State Forests of the land is an institution combining the operational attributions, the ones regarding the services, as well as the governmental ones, under one authority. It is in charge with all types of forestry exploitation, observing the right of the various owners to freely use their own property, including:

- the forest management under the state's ownership;

- the management of the operational offices;

- the consultancy and technical assistance services for the private forestry surfaces;

- the implementation of the forest promotion measures;

- planning strategies;

- the supervision of the private forests and corporate forests;

- forest protection;

- education on the environmental protection in the forestry spaces;

- identification and preservation of the areas and biotopes protected by the law, the implementation of the environmental protection measures;

In managing the forests, the following are involved:

- associations of the owners. Over 400,000 forest owners are the members of 4,300 associations in Germany. The associations manage around 3.8 million hectares, approximately one third of the Germany's forests. The private owners' interests are protected by the Forestry Council (DFWR), representative authority at the land level, where the associates are the private forest owners in the respective land. Except for the Forestry Council, the owners are protected by two other authorities, the State Women's Association and the Agricultural Association. At the federal level, all types of forestry exploitation are represented in the German Forestry Council. The private and community forest owners' interests are represented at the level of the Alliance of the German Associations of Forest Owners (AGDW);

- environmental associations. The State Association for the Nature Preservation is the main environmental organization at the federal level, where various association groups activate developing their activity in the hunting, fishing, recreational clubs fields;

- union and professional associations, federations with economic profile. They express not only opinions related to the own management strategies, but they are considered as catalyzers of the social interests and the ones related to the general policies in the forestry field. Many times they become representatives of various partnerships or conflicts generated by specific policies. Moreover, many other federations activating in the forest exploitation, processing, or wood exploitation fields impose their own forestry policies;

- other institutions at the governmental level, such as offices and public authorities contributing to the implementation of the decisions relevant in the forestry field. They include more interest areas: nature preservation, water management, agriculture, involving in the same way public authorities at regional and federal level;

- research institutes. Various profile universities, technical colleges or local or federal research institutes are called to contribute to the

improvement of the state policy. Traditionally, they have a strong connection with the Administration of the State Forests.

As Germany is a federal state, its Constitution stipulates increased competencies for the lands. In forestry and specific policies, the lands, even if they are autonomous, act within the limits established by the Federal Forests Act, the framework established by the federal Government, also establishing the margin of the local authority in the domain, also taking into account the international agreements. The lands are thus responsible for the implementation of the laws adopted at the federal level. Many programs and activities are performed in collaboration with or under the coordination of the federal Government and in collaboration with other lands.

The lands participate from the political point of view to the procedure of legislation by the Federal Council (Bundesrat, Superior Chamber of Federal German Parliament), administrations and associations coordinating their common objectives with the federal interests. In order to achieve these objectives, common regulate meetings are organized with the specific departments at the governmental level, federal and regional forest administrations or the managers of the departments responsible of the forests management at the federal and local level. In the same manner it is organized the coordination at the level of the Forestry Councils and Administrations of the State Forests, meetings representing common platforms for the information exchange between the Associations of the forest owners and the Administrations of the State Forests. Eventually, a large series of actions is developed at the level of lands, within which the federal states (lands) may establish and implement their own policies and they may apply their own objectives in the complex framework of the forestry policy.

The forestry policy at the land level generally uses classical instruments:

- relevant legislative models in this field;
- institutional support by consultancy and local assistance services;
- financial support with the participation of the federal Government and the European Union for the promotion of the forestry activities and actions, the management of the forestry natural resources, the sustainable protection according to the European regulations (such as Regulation (CE) 1257/1999);
- sponsorship for the foundation of associations dealing with the forest management in order to deal with the unfavorable situation regarding the structure of farms with small dimension forestry surfaces.

4.4 Romania

Romania is a country with high biodiversity and with a high percentage of natural intact ecosystems. Here is the largest surface of natural forest in Europe and there are many migration ways on its territory. The high level of the ecosystem diversity and the geographical place is reflected in the rich vegetal and animal diversity, represented by over 3500 plant species and more than 30,000 animal species.

In Romania, the total surface of the national forest is of 6.5 million ha, out of which 3.4 million ha (52.2%) is the state's public property.

In Romania, at the level of the year 1990, the entire national forest is under the state's ownership. Following the application of the laws on the reconstitution of the ownership right over the land (Law no. 18/1991 and Law no. 1/2000), on the date of 31.12.2010, the state-owned forests managed by the National Forest Administration was of 3,338.9 thousand ha, respectively 66.3% of the national forests. On the grounds of the Law no. 18/1991, 355.3 thousand ha (5.6%) were given back from the public property of the state, and 2,704.5 thousand ha were given back on the grounds of the Law no. 1/2000.

Considering the type of the social – economic functions, the Romanian forests are structured as follows:

- special protection functions: 52.1 %;
- production and protection functions: 47.9 %.

The legal grounds of the forests organization and management are represented by the Forestry Code in force, being the one approved by the Law no. 46/2008. It defines in art. 1, the expression of the national forest being “the totality of forests, lands meant for forestation, of the ones serving the needs of forestry culture, production or forestry administration, of the lakes, river beds, of other lands with forestry and non-productive purpose, included in the forestry arrangements on 1 January 1990 or later included in them, under the legal conditions, irrespective of the ownership right type”.

With respect to the management of lands with forestry purpose, in compliance with the provisions of the Forestry Code, this is mandatory for all the forest owners and may performed only by specialized structures, authorized by the Central Public Authority responsible for the forestry. Consequently, the administration, as well as the forestry services, as the case may be, is ensured by authorized forestry enclosures, that are of two types:

- a) state forest ranges – under the structure of the National Forest Administration – Romsilva,

managing the forests under the state's ownership and founded by it;

b) private forest ranges founded, under the legal conditions, by the administrative territorial units, by the natural or legal persons owning a forest or by associations constituted by them.

In Romania, the forest is considered an asset of national interest and, therefore, the management of this resource at the level of the entire country, is performed based on an unitary system of technical forestry, economic and legal norms on the arrangement, culture, exploitation, protection and security of the national forest, having the purpose to ensure the sustainable management of the forestry ecosystems irrespective of the ownership type.

The practical method of managing the forests is regulated by the forestry arrangements. They represent the basis of the forestry cadastre and of the ownership title of the state and establish, in compliance with the ecological and social-economic objectives, the management purposes and the measures necessary for their accomplishment. The forestry arrangements are prepared by the Institute of Research and Forestry Arrangements and by other attested units, on forest ranges and production units, for 10-year periods and they are approved by the central public authority responsible for forestry.

These forestry arrangements aim at the sustainable management of the forestry resources and promote the natural-fundamental types of forest ensuring the biological diversity of the forest, representing one of the principles at the basis of the sustainable forest management in Romania.

4.5 Sweden

In Sweden, according to the information supplied by the Swedish Forest Agency [17], the total forested area is represented by 60% of the country's total area, being the most significant natural resource of the country, ensuring 12% of the income resulted from export and provides work places for approximately 100,000 people.

The national forest is of approximately 23 million hectares, out of which:

- 51% is under private ownership, at a small scale, under the form of small family businesses, the average surface owned by a private owner being of 45 hectares;
- 24% is under the ownership of the private forestry companies;
- 25% is owned by the state and other public authorities.

According the statistic data in 2007, there are around 350,000 of forest private owners in Sweden,

out of which 70% live on their properties, and one third of the total private owners are women.

The legal basis of the forest management is represented by the Swedish Forestry Act. According to it, the Swedish Forest Agency, under the management of the Ministry of Agriculture, has as target the owners of the forestry lands, forestry industries, population in general.

The responsibility areas of the Swedish Forest Agency are the following:

- coordination of the national promotion efforts of the commercial activities related to the forestry sector;
- development of the forestry area in compliance with the representatives of the forestry industry and with nature preservation interests;
- development and revision of the forestry programs and the forestry industry;
- supervision of the wood classification process.

The Swedish Forest Agency is in connection with the representatives of the government, ministries, with other public authorities at the national, district and municipality level. The members of the Swedish Forest Agency are appointed by the government. The agency is responsible for the implementation of the national forestry policy, for the monitoring and development of the forestry industry, as well as for the proposal of the necessary measures to perform the development of the forestry sector in compliance with the national objectives.

The Agency develops its activity in 43 forestry districts organized for 5 regions situated on the Swedish territory. The forestry districts are directly managed by the owners of the forestry lands. In this context, the Swedish Forest Agency deals with the management of the national parks, the forests under the state's ownership being managed by a forestry company under the state's ownership, called Sveaskog [18].

Sveaskog owns 14% of the forestry area in Sweden, representing a total of 3.3 million hectares of productive forestry lands. Sveaskog is the most significant forestry owner in Sweden, being on the fourth place at the European level, from the five most significant owners of forestry lands (Romsilva Romania being on the fifth place, with 3.4 million hectares, the places 1-3 being occupied, in this order, by Metsahallitus, Finland: 9 million hectares, Lasy Panstwowe, Poland: 7.3 million hectares, Office National des Forests, France, 4.6 million hectares).

The government is responsible for the management of the state assets of the company, so

that it reaches the best development value and to comply with the public interests.

Approximately 11% of the Swedish lands are protected by the legislation specific for the nature preservation, the most significant areas from this point of view being:

- national parks – the beneficiaries of a strong and long-term protection, always under the state's ownership;
- national reservations, of which size may vary from few hectares to few thousand hectares, they may be under the state's ownership as well as under the private persons' ownership, benefiting from long-term protection. The natural reservations represent 83% of the lands protected by law;
- protected habitats – with a high level of long-term preservation and protection;
- forestry area voluntarily submitted by the owners for the preservation, without being compensated by the state;
- protected areas where rare animal species can survive;
- natural monuments – areas with small surface, with interesting landscapes and geological characteristics.

4.6 Norway

In Europe, except for the European Union area, the country with the largest forested surface is Norway. The forestry area in Norway covers 38% of the country's surface, namely 12 million hectares of land. Approximately 88% of the national forests are privately owned as 120,000 properties.

Due to the specific character of the forestry property structure in Norway, the forestry activity is performed at a low scale, through family businesses. According to the Forestry Act [19], the owners of the forestry areas are responsible for any forestry activities performed on their properties. They must consider the observance of the environmental values and the applicable regulations when they perform forestry exploitation activities.

The authority regulating the development of the forestry activities is the Ministry of Agriculture and Food, its decisions being implemented by the agricultural commissions, constituted at the level of districts and by the local administrations.

The forestry areas protected by the law cover approximately 3 million hectares, representing 25% of the national forest. The main protected forestry areas are:

- national parks;
- forest reservations;
- areas managed by Statskog.

Statskog [20] is forestry company under the state's ownership, founded in 1860, owning 20% of the national mainland surface, namely 61.000 km², being the most significant forestry owner in Norway. The company Statskog is under the jurisdiction of the Ministry of Agriculture and Food, owning properties in approximately 180 municipalities in Norway. According to the Statskog strategy 2007–2010, the responsibility of the forestry land management belonging to the Crown is divided between Statskog on the one hand, and the administrators of the mountain areas and Crown's lands on the other side. Thus, while Statskog has the ownership right on the land, the administrators of the mountain areas control the development of the hunting and fishing activities, as well as other activities performed for the population's benefit (recreation).

The income resulted from the management of the Crown's lands is individually directed to the administrations of the mountain areas and of the Crown's land, as well as to two other special funds (Landowner Fund and Crown Land Fund).

The current legislative framework regulates the sustainable management of the forestry resources in order to develop the local and national economy, ensuring the biological diversity and the environmental protection.

According to art. 14 of the Forestry Act the forest owners have the obligation to grant an amount, representing between 4 and 40% of the obtained income upon the forestry exploitation (sale, expropriation, deforestation etc.) in a fund managed by the government (The Forest Trust Fund). The amounts collected in this fund are exclusively meant for the sustainable long-term forest management. This fund is the property of the ones who support it, but it is used only for developing specific activities (planting, road construction, management, deforestation etc.). The forest owners are granted tax exemptions from the amounts deposited to the Fund, as well as financial aid from the local administrations, meant for the development of the forestry infrastructure and the use of the forestry resources, especially in the coast areas from the western, central and northern Norway.

5 Conclusions

The forests have a special importance for the ecological, social and economic development of the overall European continent, as they present a complex natural dynamic and generate multiple benefits.

By the European Commission's presentation of the Green paper on the forest protection and awareness in the forestry field in the EU: the preparation of the forests for the climate changes, it is requested the update of the EU forestry Strategy and the launching of a debate on the options for an approach at the EU level on the forest protection and the awareness in the forestry field.

The Green paper identifies the general situation at the global and EU level of the forests and describes their characteristics and functions. At the same time, it exposes the main challenges to which the forests must resist in the context of the climate changes and the manner whereby these challenges might compromise the forest functions and describes the instruments available for the forest protection.

In order to accomplish the forest functions, a series of protection means is necessary, harmonizing the area of the economic, social and ecological interests. An important role within the protection means of the forests is occupied by the category of the legal instruments. In this respect, the European countries, the ones from European Unions, as well as the other states with large forest surfaces, ratifies more international acts establishing forest preservation and protection principles and their sustainable management and adopted at the national level many laws and other statutory instruments.

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