

RISKS OF FORESTRY

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Abstract

One of the most important natural resources that Romania has are the forests. The multiply utilities of the forest like recreational, wood production, forest fruits and vegetables and fish production, the forest has another important role, the role of protection and adjustment of nature. One other role of the forest is that is home for wild animals.

But forest is mostly used in economy for wood production and a very important role it has the National Organisms the reglements how the forest can be exploited in order to not be affected the natural ecosystem of forest.

Key words: forest, forestry, laws, sustainability

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INTRODUCTION

In article „Risks of forestry” i want to make a research about businesses in forestry domain, the level which Romania is in comparison with other countries from the European Union, also to analyse the legislation that produces effects in forestry activities and the risks that can appear in over those activities.

Also i want to identify the influence of other organisms in order to make changes in the way forestry is looked at in role to develop a sustainable forestry activity and the economical results that appears.

CONTENT

A history lesson from school taught me that Stefan cel Mare, which was the head in old Moldova country, needed in the Battle from Codrii Cosminului to chop an entire forest in order to be able to stop the enemy, then to use the prisoners as a punishment to work for plow the soil and plant acorns that will grow in future in a new forest.

Forest is for Romania a valuable natural resource with renewable capacity and it offers us, except wood which is the prime product that it offers, forest fruits and plants, recreational spaces, wild fish and fish farmers and ornamental saplings.

1.DATA ANALYZE

Romania has at the moment a surface of 6.55 millions hectare in the administration of forest fund, which represents 27.5 percent of the entire surface of the country. In comparison with other european countries, the average surface in the administration of forest fund in Europe is at 32 percent from the total surface of a country. From the entire surface, 6.39 millions hectare is covered with forest surfaces, the rest of it is represented by roads and degraded pastures in order to be wooded.

From the entire surface in the administration of forest fund, 48.8 percent is in public property of the state, 16 percent is in public administration of teritorial administrations, 33.8

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percent is in property of individuals and companies and the rest of 1.4 percent is in private property of territorial administrations.

The distribution of forest in Romania by landforms is: 59.7 percent of the forest surface is in mountain zones, 33.8 percent it is in hill zones and only 6.5 percent is in plain zones. As species of trees that predominate the forests is represented by 31.5 percent of beech forests, 19.9 percent is represented by spruce forests, 19 percent is represented by hard wood species, 16.7 percent is covered with soft wood species, 6.2 percent are cvernicee forests and 6.5 percent are represented by fir forests. As age of forests, just 16.1 percent of the forests have over 100 years old, 31.7 percent are covered with forests by age from 0 to 40 years old, the representative forest as age, in percentage of 54.2 are forest that have 40 to 100 years old.

By the role that forest it has, 53.3 percent of the covered surface by forests are from group 1 functional with important roles as protection of soil and landfields, represented by 43 percent of those forests, forests with role in protection of water, 31 percent, forests with role in protection against pests, 5 percent, forests with role of reproduction, 11 percent and forests that are part of protected areas and with scientific role, 10 percent. The rest of 46.7 percent of forest is part of group 2 functional which are made from forests with production role and with one ore more protection roles.

According to the data research of Romania forests, the volume of wood that our country has is 2.22 billion cubic meter of wood. The average volumen of wood at a hectare in Romania is 321.9 cubic meter, on the other side, the average volume of wood in Europe's forests is 147 cubic meter.

National Forestry Organisation-Romsilva is a national company, works as an authority for the Environment, Water and Forest Minister and it has the prime role to gestionate sustainable the forest resource in agreement with forest laws, in order to increase the contribution of forests at improving the environment and ensoure the national economy with wood and other forest products. Romsilva is administrating the forests owned by the public state with certified Forestry authority. In 2015 in Romania was certified a number of 468 forestry authorities, a number of 322 of forestry authorities are part of Romsilva, 146 of forestry authorities are local, 3 forestry authorities are part of National Institute of Research and Development in Forestry „Marin Dracea” and 1 forestry authority is part from the Administration of Protocol Patrimony of State.

2. ECONOMY RESULTS

In 2015 in Romania have been harvested a volume of wood of 18.1 million cubic meter, 2.8 million cubic meter has been harvested from the public property of territorial administrations, represented by 16 percent, 5.3 million cubic meter has been harvested from individual and company forest owners, represented by 29.7 percent, 9.1 million cubic meter has been harvested from public property of the state, a total of 50.2 percent and the rest of 749 thousand cubic meter has been harvested from vegetation that isn't part of national forest fund, in percentage of 4.1 percent. In comparison with the other years, Romania has harvested in 2015 more wood then 2014, which it was at 17.8 million cubic meter of wood, but less then 2013 where they manage to harvest a total quantity of 19.2 million cubic meter of wood.

From the total volume of wood that have been harvested, the volume of round wood which is represented by wood that can be manufactured and fire wood, in 2015 was at 15.3

million cubic meter. In comparison with other European countries, Romania has harvested less volume of round wood than the Czech Republic, which they managed to harvest 16.1 million cubic meter of wood and Austria, that have harvested a volume of 17.5 million cubic meter of round wood. In European Union the nordic countries from Scandinavian Peninsula has been the „kings” in harvesting wood, Sweden having harvested the biggest amount, 74.3 million cubic meter, followed up by Finland with a volume of 59.4 million cubic meter, Germany is the next big harvester, with a volume of 55.6 million cubic meter, France had also harvested 51 million cubic meter of wood and Poland harvested 41.3 million cubic meter of wood.

The income registered at forestry units at the level of 2015 was at 2.1 billion lei, a small raise then 2014 when the income has registered 2 billion lei and from 2013 when the total income of forestry units has been 1.8 billion lei.

The income comes from wood that was been harvested and turned into products, but also ornamental saplings from farms, other wood products, wood seeds, edible mushrooms, forest fruits, hunting products, fish and bee products have registered in income in 2015 as 1.85 billion lei, from 1.77 billion that have been registered in 2014. The income from products represents 88% from the total forestry income sector, the rest of 12% comes from forestry special services that are part in the structure of forestry organization, also from licensing, compensation and other taxes that are implemented.

3.HEALTH AND SUSTAINABLE DEVELOPMENT OF FOREST

The factors that have an influence on forests health comes from biological factors, like bugs and insects that attack trees from forests, lowering the quality of wood and leading to dead forests, but also weather conditions that have an influence in health condition of trees, here we are talking about freezing periods too late or too soon that affects the stem, but also the big water quantities from rains or drought periods.

In Europe exists a programme called ICP-Forests a International Co-operative Programme on Assessment and Monitoring of Air Pollutant Effects on Forests with the intention to monitorise the biotics and abiotics factors that influence the health of a forest. For evaluation they take in consideration surfaces by 16x16km, but also has 12 representative surfaces near National Administration of Meteorology stations in order to intensively monitorise the weather parameters and the quality of air.

The National Forest Inventory is the principal instrument for evaluating the resources of the forest from a country. The principal objective for evaluation at national level of collecting, management and analyze of informations about forest resources, the publishing of results and realise the studies and scenarios about developing the forestry sector that can be used in the process of making the forestry politics and inter-sectorial cooperation. The National Forest Inventory has been adopted in 2006, his role is to cover the entire forest vegetation in Romania, which includes national forest fund, forest vegetation from surfaces that are not part of forest fund, but also the trees founded outside forests. The National Forest Inventory has the role to offer data for the reporting the indicators about sustainable development of forests, as our country had assumed at Ministerial Conference for forest protection in Europe. This data is also important for reports that needs to be done for the convention of United Nations Organisation about climate changes that was taken in Kyoto's Protocol and for the Convention about biodiversity.

In Romania, the activity of National Forest Inventory is part of the National Institute of Research and Development in Forestry „Marin Dracea” and the process is very complex in order to make a data research from the forests about trees, small trees, dead wood, forest soil and to go to digital photo of the forest, laboratory analyzes and the statistic processing of the collected data.

The protected areas are conserved zones from the entire world that hasn't been modified by people or they're modifications have been changed the zone for it's special cultural and view.

In 2015, Romania has 29 natural protected areas with a total surface of 1.67 millions hectare, which in property of RNP-Romsilva are 22 of those protected areas and covers a surface of 853 thousand hectare and a surface of forest fund that covers 583 thousand hectare, which 397 thousand hectare are in property of the state. Romsilva manages the 22 protected areas by a conventional contract with the Administration of Protected Areas.

Nature 2000 is a European network of protected areas that has a representative wild species and natural habitats fundamental to the community. Nature 2000 wasn't build just to protect de nature, but also to maintain this natural resources on the long term for developing the socio-economy.

In Romania are also 531 Nature 2000 Areas, 71 of those are managed by Romsilva through it's local forestry authorities and 92 natural reservation and natural monuments of nature.

4. NON-PROFIT ORGANISATIONS

Foresc Stewardship Council, FSC as abreviation, is an independent organisation, non-politic and non-profit, founded in 1993 with the priority to promote a forestry management that includes sustainability in forest around the world.

The principal atribution of Forest Stewardship Council are to develop standards of forestry, to acreditate certification organisms and national initiatives and to label the wood products. By buying wood products that has been certificate it exists the guarantee that that wood used in that product comes from forest with a sustainable management based on social, economical and ecological criteria.

The certificate of forest management is a volunteer act, the proces of certification could be acomplished only if the owner or the forest administration wants and represents the evaluation of how the forest is administrated and managed on a raport with standard criterias.

In order to manage and get a FSC Certificate, the Forest Stewardship Council had issued 10 principles and 56 criteria which they will take as valable in forest management in order for the forestry to respect issues about environment, social and economics aspects.

The first principal is about according to the laws and principals of FSC, which is about respecting the laws from the country and agreements that country has with other countries or organisations, the company or administrator to have all the bills payed on time, the forest surfaces must be protected against illegal forestry, buildings or other unauthorized activities and the manager to want to respect the principales and criterias from FSC. The second principal is about property, user rights and responsibilities that have to be taken, so the authorities need to inspect and to have the control about the forests, forestry operations that are done and to offer the resource necesarilly for their existance. The third principal is about local people rights and it's about protecting the local culture, economy and ecology in the process. The fourth principal

is about relationship with communities and the rights of employees. The fifth principal talks about the benefits offer from the forest to us and we need to take in consideration multiple functions that the forest has, from production to protection, but also environment and social advantages. The sixth principal relate about the impact over the environment so the forestry management have to take in consideration protecting the biological biodiversity, the water, soil and ecosystems unic or fragile. The seventh principal is about management plan in which the company or authority need to take in consideration the objectives, to describe the resources of the forest, environment restriction, who the owner of the forest is, socio-economical conditions and data about other fields next to the forest. The eighth principal is about monitoring and evaluation and has to offer data about the condition of the forest, forestry production, the management of activities and what impact they have over the environment, in order to make a report it's needed the production rate of all forest products and the rate of growth, regeneration and changes about plants and animal species. The ninth principal talks about maintaining the forest with a high rate of conservation. The tenth principal relate about plantation.

A lot of companies take care from where they buy the wood that they use and sell and FSC Certification is to take in consideration in buying or not wood from that company or authority.

Agent Green is a non profit organisational which had started in 2009 with the purpose to investigate how forestry is done in Retezat Mountains and to protect the forests against illegal activities in order to conservate biodiversity.

They're first purpose is to evaluate the way forestry is done in national forests and to trigger an alarm signal to the authorities and population for the way forestry is done in our country.

5. THE RISKS OF FORESTRY

Forestry has to be done in a legal terms and basic conditions, after a research has been done in order to protect the environment. As i've speaked early, forest has also it's her problems because of different viruses, bugs, insects and dead wood, so it's needed to take in consideration when you make a forestry management to protect the good wood and the young forests in order to be sustainable.

On a report made by Nostrasilva, which is a Federal Organisation for Forest and Pastures Owners in Romania they say that a forest surface around 250-300 thousand hectare has been chopped down illegally, the surface resulted after and inventory of the surfaces that have been returned to owners after Law 18/1991, done in 2001-2002. The Court of Auditors says that 80 millions cubic meter of wood have been chopped illegally in the period 1990-2012, which is the equivalent of the 250-300 thousand hectare returned.

After the National Forest Inventory has taken 2 measuraments on the field, they've discovered that 26.69 million cubic meter of wood have been harvested, but only 18 millions cubic meter of wood appears in documents, so that result to the conclusion that 8 millions cubic meter of wood is from illegal harvesting. But the National Forest Inventory didn't talk about illegal harvesting, but is also from dead wood as a result of natural recycling and also errors from the calculation metods of APV.

Even if the data offered by National Forest Inventory shows that Romania's forest isn't affected by illegal forestry, we do have some data from the field that shows us that the situation

isn't the same. On the other hand, Nostrasilva point attention that the activity of forestry is in danger by the blocks existing on the market, by the raise of the price of wood, by taxes and the help from the authorities that is not coming to help this sector.

An application launched recently, The Forest Radar, has the utility for public people to see how forestry is done, from where the wood is collected and to verify the trucks full of wood if they have authorization or not.

The risks of forestry and human influence is affecting the forests and environment by losing animal and plants ecosystem, the resource of water ar also influenced because it's known that trees act as a water tank, the ground can move because of the stability given by the root of the trees is lost.

But also as i've seen, the forest has also another capability, to regenerate it's self, and the National Forest Inventory says he harvest last then 50 percent of the capacity of the forest to grown.

CONCLUSION

Forest is one of the most important natural resources for Romania capable of regeneration, but also as a „alive” factory it is influenced by the climate changes and diseases.

The forecast from the National Institute of Statistics and from National Forest Inventory shows us that the surface of forests is growing in the last years and the volume we harvest every year is mostly constant, also less then the capacity of forests to regenerate. Also, forests have a essential role in offering other services and products like recreational time, forest fruits and vegetables, fish, bee products and hunting.

Forests also needs care from different organisms for protection agains diseases, bacteria and dead wood, which are big problems and can effect even more forests if we don't take care off.

Even if the National Forest Inventory and Nostrasilva says our forests are safe and forestry is not effecting, from my opinion they didn't take care about some of important data, and deforesting an entire surface can mean changing the environment, the natural ecosystem and local culture for some of the places. Forestry needs to be done in a way protecting the forests and help it grow better and stronger and non-profit organizations need to point fingers to authorities about what mistakes are done and to correct them. Even if almost a third from the forest surfaces are to private people and companies property, a national organisms needs also to make measurements and take care about the way the forest is managed.

Because of the illegal forestry the healty of the environment is in danger and money are lost from collecting, money that can be use in developing new projects for forests and used for projects that help the local comunity expand and evolve.