

ELABORATIONS OF FUTURE FOREST PLANNINGS AND THE PROTECTED AREAS' INFLUENCE ON THE FUNCTIONAL ZONATION OF THE RURAL AREA

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Abstract: *Future development of forest management activities should be based on global trends in relation to management of forest resources, the peculiarities of the current stage of socio-economic needs of the country and improving the management of national forest. The rules of arrangement must continue to pursue management providing the right framework to promote a sustainable forestry, emphasizing concerns the preservation and enhancement of biodiversity and rational exploitation and continuous multiple functions ecological and socio-economic aspects of forest ecosystems.*

Key words: *forest planning, forests road, rural area, protected areas*

INTRODUCTION

It is remarkable that, based on the principle of continuity, in the broader sense described above, and are developing increasingly more on line promoting management aimed at maintaining and enhancing the role of complex and multiple functions of forests, arrangements will be Romanian and largely focused on basic principles objectives announced at the United Nations Conference on Environment and Development in Rio de Janeiro (1992), the desiderata "sustainable forest management" as defined this concept for the Ministerial Conference Protection of European Forests (Helsinki, 1993), correlated with the concept of sustainable development. Unfortunately, in practice management, provisions management plans have not been applied consistently.

Overtaking possibility forests and high concentrations in pools and massive cuts were made available by those plans objectives may not be achieved.

In many cases, the forests were vigorously deconstructed, decreasing appreciably in both timber production for the next steps and their ability to perform optimally protective functions.

Particular attention should be about improving the situation of these forests landscape planners' appropriate measures. Such measures should be aimed first proper sizing of the possibility, on the other hand a structural regeneration and forest management in close agreement with management objectives and environmental and socio-economic functions of forests.

To achieve these measures is vital to ensure accessibility forest by maintaining existing network of forest roads and its gradual expansion in relation to the dynamics of stands and needs of the works forestry and mining.

The transition from centralized economy to a market economy has led since 1990, some changes in the ownership and management of forests. Over 2,438 hectares (37% of the national-forest IFN source -2012) forests were returned to former owners or their survivors. Their number may be even higher (over one million ha being limbo - source IFN-2012), registering a high attrition in this report, forests concerned.

It is necessary therefore that the management plan, find solutions to their sustainable management. Lack of appropriate rules and removing them from the main concerns of forestry bodies, made much of them to be cut without compliance and even cleared forest.

Therefore, the purpose of planning and management should be harnessing their idea, defended even before the Second World War, the arrangement of these forests on bodies, municipalities, etc., which could lead to a continuous supply of timber owners and associates the proper application of the rules of forest culture. Another alternative - light, obviously, and the choices owners - would be a fitting these forests at the property, these mini management plans will be centralized at UAT, CRSC, respectively ANCPI and the central public authority responsible for forestry; owners will have the right to property under constitutional provisions. Some of the advantages of this solution are:

- Ensure a strict control on land use (storage destination forest land as provided by the laws in force). Develop a management plan in collaboration with many other owners responsibility leads to dissipation of forest owners and their managers. In the last 15 years were reported numerous changes in land use along with developing forest management on large surfaces (surfaces state or other legal platforms forestry fund holding public or private property of local interest with private surfaces together);

- In preparing a management plan for the area in 300,0 mini ha respectively Arrangement drawing up a safety surfaces under 10 ha solutions can be checked easily as these small areas;

- Monitoring and enforcing the provisions of forest management would be much easier as these small areas with point solutions.

MATERIALS AND METHODS

Increasing pollution and harm to the forest, insect attacks, droughts, windfalls, snow breaks, hydraulic works, abusive or deforestation will require the same occasion, adequate and careful decisions of landscape planners calculated the possibilities and rigorous measures ecological reconstruction of damaged trees, preventing the development of disaster and create a reserve fund, absolutely necessary for such situations.

To prevent possible hazards of further research are discussed special about spatial databases, such as establishing criteria compositions resistant to industrial pollution, drought, the windfalls etc. ; technical research on exploitability correlation between the effective fructification of stands; establishment of structures and better treatments to ensure biodiversity and ecological stability of stands and more.

Internationally to put right the problem of adapting forest management plan to the changing conditions of multiple causes (including climatic).

New research is also needed to optimize the mathematical modeling of various processes of regeneration, development and tuning of phytocenoses forestry and landscape planners economic processes of interest.

In parallel, research must be perfect on the evaluation of protective functions of forests and establishing a comprehensive system for estimating the value of forests and forest lands. On line stand structure and hence the base fitting idea concomitant recovery of the various functions of forests can also lead to the shaping of complex goals and on this basis, without rigorous differentiation only in relation to the priority function on and valence concept "forest planning functions multiple". From the above it follows that the management plan to determine, among other things, responsible for monitoring how the evolving relationship between forest structure and functions, in order to ensure consistency between the objectives pursued by the measures and effects achieved by applying them.

This can be achieved through a permanent control of stage to stage, which prints the character of continuous activity management plan itself.

Only in this way, arrangements that system is, by its own continuity, the main guarantor of a sustainable forest management, periodic monitoring conducted within its essential elements of the inverse necessary adjustment system.

Action control system organization and management of the forest management plan for the optimal state, but will be associated with that of forest monitoring or continuous surveillance state and functional effectiveness of forests under the influence of disturbing factors, including climate change.

To the same end date (basically since 2006) is the National Forest Inventory (IFN) program based on a new methodology that modern field data collection is done with modern equipment but covers the entire forest vegetation in our country not only lands with forest covered national forest as forest code.

In general, complex problems of spatial forest cannot be resolved without modern technology, such as computer science, remote sensing, geographic information system (GIS) and areas that in the past 15 years have gained momentum in our country.

RESEARCH RESULTS

The forest vegetation is the key element that goes into forest ecosystems is based on the existence of vital ecosystem. Protected areas in Romania contents comprise over 80% of forest vegetation areas, which is why the way they are managed these areas depends on the aims and objectives concerning environmental protection specific protected areas.

Develop forest management is based on the rules for compliance with legislative framework designed specifically for forest management in forestry regime, the main aim of environmental protection.

Forest Management Plans in place to avoid degradation of forest ecosystems, to be developed assuming their ecosystem conservation, but also the superior of their products.

Zoning functional in terms of landscape planners is a progressive system of classification of forest vegetation in groups and functional types that require different degrees of restrictions on human intervention in forest ecosystems. The functional zoning functions are established priorities for protection or production of forest vegetation.

Legislative restrictions set human activities in protected areas in Romania contents are found in forest functional zoning of forest planning.

Functional Zoning emerged as an objective need to be able to watch for such purpose by forest policy at a time.

Based on the priority functions must exercise forest vegetation at a time, two groups were formed large forests and 6 functional types with varying degrees of restriction as follow:

Group I - forest vegetation with special protection functions. This includes 5 subgroups numbered from 1.1 to 1.5;

Group II -a – includes forest vegetation production and protection role. It comprises two subgroups numbered 2.1 (functional groups a, b, c) and 2.2. (functional category).

Functional types I - IV include forests with special protection functions (Group I) and functional types V and VI contain forest production and protection functions (group II).

Type I functional - TI - is the most restrictive. Forest vegetation functionally involved in this type will not be subject to any interference by the human factor, without the consent of supervising compliance academia special conservation regime imposed by law. In this functional scientific reserves are falling and national parks that include forests of scientific interest and protection of Genetic Resources and Forestry ecofund (subgroups: 1.5 a, c, d, e);

This preserves the forest ecosystems in their natural state.

Type II Functional - TII - requires a great restriction. Forest vegetation functionally involved in this type will be subject to anthropogenic interventions from very low intensity (cuttings conservation, hygiene Cuts) - pursue the forest ecosystem structures as close to natural. This includes most forest functional type of scientific interest and protection of Genetic Resources and Forestry ecofund (subgroups: 1.5 b, f, g, h, i, j, k).

The goal is to maintain forest vegetation, not a benefit by harvesting it.

Type III Functional - TIII - promotes a lower restriction. Forest vegetation functionally involved in this type will be subject to regulation of the production process, but promoted treatments will be most intensive (gardening). In this function, fall forests in national parks, functional categories included in 1.5. a, b, c, d, e, f, g, h, i, j, k, which is the national parks and natural buffer.

Restrictions are imposed by enclosing forest in a particular functional type refers in particular to reduce human intervention in forest ecosystems. By framing the areas of forest fund in type I functional, it must eliminate any human activity in the area, thus preserving all ecosystems, with positive effects on environmental protection, but with negative influence on the economic development of rural areas.

By framing areas of the forest fund functional type II human activities for reducing to a minimum, so as to preserve forest ecosystems to their natural state as high a rate. Here restrictions on the exploitation of forest resources in rural areas respectively, leading to reduced development of the rural economy.

Buffer zones around reserves are classified as functional type III, where exploitation activities in the forest products are allowed, but with reduced intensity, so as not substantially altered ecosystem structure.

All protected areas in Romania are properly classified restrictions that they impose, in one of the functional types of forestry.

CONCLUSIONS

In future requires substantial improvement in the quality management plans, especially through objectification and accuracy of the information collection especially as modern technology has now collecting and processing them.

Following considerable development of modern technologies, forest planning should benefit from the use of this technology. For this methodological rule underlying the development of forest management plans must take account of international conventions on environmental protection and also the possibilities that technology offers today.

Modern planning must meet the following conditions:

- Primary information to be collected in the field with modern high precision using all sources and consulting all stakeholders;
- Information processing to be done with specific programs that can allow the simulation and analysis of several variants of solutions, in order to find the best solution for the final draft;
- Storage of information to be operative, with constant update.

In conclusion, the establishment of protected areas at national level has an important role for the full activity of the forestry sector and the countryside as a whole.

Nature protected areas determined functional zoning of forest planning, according to which human activity is restricted gradually, reaching total restrictions that prohibit any interventions in ecosystems.

Economically these restrictions have negative effects, which is why the state should intervene through legislation to create a legal framework for compensating the beneficial

effects that these protected areas have on the environment as a whole environment that benefits the entire society.

REFERENCES

1. **AGENDA 21-** Sustainable Development, 1992, Rio de Janeiro.
2. **BĂNEȘ A.**, 2006, Implementation of it in agriculture a necessity for Romania, Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca-Agriculture, ISSN 1454-2382, Vol. 63, pag. 139-142;
3. **CHISĂLIȚĂ I., LAUER K.F, FORA C.G., ȘTEFAN CAROLINA, MOATĂR MIHAELA**, 2010, Monitoring on forest health in Caraș-Severin County - case study Journal of Horticulture, Forestry and Biotechnology, vol XIV (2), 97 – 99;
4. **CHISĂLIȚĂ ION, SOLOMONESC ADORIAN, MOATĂR MARIA MIHAELA, ȘTEFAN CAROLINA, OLARU DANIELA**, 2011, Issues of Forestry Fund administration by Forestry Department Reșița in the period 2001 - 2010 Journal of Horticulture, Forestry and Biotechnology, vol XV (4), 66-69;
5. **CIOLAC RAMONA**, 2011, Tourism in European rural area-case study Austria, Lucrări științifice Management Agricol, ISSN 1453-1410, vol. XIII (4), pag. 109-112;
6. **CIOLAC RAMONA, IOAN CSOSZ, CORNELIA PETROMAN, IOAN PETROMAN, SIMONA MARTIN, DIANA MARIN, ANA-MARIANA DINCU**, 2014, Agrotourist products-feedback and suggestions, Lucrări Științifice Zootehnie și Biotehnologii, ISSN 1221-5287, vol.46 (1), 2014, p. 313-316;
7. **CRĂCIUNESCU A., MOATĂR MIHAELA, STANCIU S**, 2014, Considerations regarding the afforestation fields Journal of Horticulture, Forestry and Biotechnology, ISSN 2066-1797, vol. 18 (1), 2014, 108-111;
8. **FEHER ANDREEA , OTIMAN P.I., V.GOȘA, STANCIU S.**, 2009, New financing perspectives of agriculture and rural development – implications for Romania, Lucrări Științifice Managemnt agricol, Seria I vol. XI (3), 191-198;
9. **FORA CIPRIAN G., BANU CONSTANTIN M., CHISĂLIȚĂ ION, MOATĂR MIHAELA, OLTEAN ION**, 2014, Parasitoids and Predators of *Ips typographus* (L.) in Unmanaged and Managed Spruce Forests in Natural Park Apuseni, Romania Notuale Botanicae Horti Agrobotanici, vol. 42(1), 270-274;
10. **GIURGIU V.**, 1986, Forest and future Roman people in: Our forests: yesterday, today, tomorrow, ICAS, Series II, Bucharest.
11. **IANCU TIBERIU**, 2007, Economie agrară, Editura Agroprint Timișoara;
12. **IANCU T., HURMUZACHE TABITA**, 2014, Issues characterizing Romanian agricultural production, Journal of Horticulture, Forestry and Biotechnology, ISSN: 2066-1797, Vol 18(3), p.136-142;
13. **MARTIN SIMONA CRISTINA, CIOLAC RAMONA, STANCIU SORIN, DUMITRESCU CARMEN, PALADE OANA**, 2013, Research of the Quality of Services as Expression of Social Efficiency in the Agro-tourist Rural Development 2013, Proceedings, Volume 6, Book 1 (3), 241-246;
14. **MILIN IOANA ANDA, TIBERIU IANCU, IOAN BRAD, ELENA PEȚ, IULIANA IOANA MERCE**, 2010, Consumer Protection Issues in the Market Economy, Bulletin of University of Agricultural Sciences and Veterinary Medicine, Cluj – Napoca, Agriculture, Vol. 67(2), p.160-164;
15. **ORBOI MANUELA-DORA, BĂNEȘ A.**, 2004, The biological agriculture in the Mediterranean areas, Bulletin of the University Sciences and Veterinary Medicine, Book Series: Horticulture, Cluj-Napoca, ISSN 1454-2382, Proceedings Paper, Vol. 61, 474-474;

16. **ORBOI MANUELA-DORA**, 2013, Aspects regarding the evolution the organic food market in the world, Research Journal of Agricultural Science, *Lucrări Științifice Facultatea de Agricultură, USAMVB*, “Tendințe de dezvoltare în agricultura europeană”, Timișoara, ISSN 2066-1843, vol. 45(2), pag. 201-209;
17. **STANCIU S. M., TABĂRĂ AMÂNAR C.G.**, 2011, Comparative analysis of the offenses covered by forest legislation in Romania *Journal of Horticulture, Forestry and Biotechnology*, vol. 15, (1), pag. 203-208;
18. **SOLOMONESC A., CHISĂLIȚĂ I., MOATĂR MARIA MIHAELA, ȘTEFAN CAROLINA, FORA G.C.**, 2012, Issues of forest management in Reșița County *Journal of Horticulture, Forestry and Biotechnology*, vol. 16(2), pag. 243-246;
19. **TABĂRĂ AMÂNAR C., STANCIU S.**, 2013, Research on rural development European Union' s legislation in 2012 *Lucrări Științifice, Facultatea de Management Agricol, Seria I*, vol. XIV, pag. 47-51;