Legal Aspects of Managing Recreational Forests in the Republic of Lithuania: Case Study of Vilnius Town Forest Management

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This study analyses the legal aspects of managing recreational forests in Lithuania. As a case study, it selects the forests under the management of Vilnius town. The paper discusses the division of forests into groups and sub-groups depending on their functional purposes and management objectives, the adaptation of Vilnius town forests to meet the requirements of social, recreational, cultural and ecological needs depending on forest farming intensity. The objective is to examine the balancing act between individual forest functions, which in many instances may be even contradictory: forest utilisation for wood harvesting, forest protection, provision of recreational service, etc. Conclusion is drawn that a single entity could be charged with the task to manage all state forests located in the territory of Vilnius town. The second proposed alternative is to enhance forest policy development and supervision functions within the administration of Vilnius town and then to contract one or several companies for implementation of these policy objectives.

Key words: forestry, recreational forests, rational use, management.

1. Introduction

Forest provides society not only with economic benefits, supplying wood and other forest products, but also serves in meeting public recreational needs and furnishing other social functions, such as amenity values, healthy living environment, maintenance of cultural heritage, etc. [Merlo and Croitoru, 2005]. Forest also preserves ecological stability of our landscapes, serves as a habitat for a variety of fauna and flora species, prevents soil erosion, and acts as a watershed for our drinking water supplies.

The balance of importance of forest functions has its own specifics in urban and sub-urban forests. Provision of ecological and social functions is of a particular significance in the urban and sub-urban environment. Depending on their specific location, the management objectives in these forests may be opposite to those in the forests designated mainly for commercial exploitation.

Forests cover 32.8% of the territory of Lithuania [Lithuanian Statistical Yearbook of Forestry, 2008]. In Lithuania, forests play a relevant role in both supporting an important economic sector of forestry and forest-based industry and fulfilling social and protective functions [Ozolinčius, R., 2005].

According to the functional objectives, all Lithuanian forests are divided into groups with different management regimes [Lietuvos Respublikos miškų įstatymas]. This division renders the overall framework for strategic balancing and ensures the provision of individual forest goods and services at the level of specific geographic locations as well as the entire country.
Reserve forests belong to Group I. The forests of this group are located in strict nature reserves, state parks and biosphere monitoring territories. The main objective of their management (or non-management, as a matter of fact) is to leave them grow naturally. Forest harvesting, except a few special cases, as outlined in the Law of protected areas, is not allowed. On January 1, 2008, there were 25.9 thousand ha of Group I forests (1.2 % of the total forest cover in the country) in Lithuania [Lithuanian Statistical Yearbook of Forestry 2008].

Forests of Group II comprise special purpose forests. By January 1, 2008, there were 262.0 thousand ha of such forests in the country (12.2 % of the total forest cover) [Lithuanian Statistical Yearbook of Forestry 2008]. Forests of various types of preserves, protected sites of natural resources, anti-erosion, recreation (forest parks, town forests, forests of recreational zones of the state parks, forest sites designated to serve the recreational purposes) are included in this group. Forest management in such forests aims at preserving or reviving forest ecosystems in their entirety as well as their separate components, forming and conserving the forest recreational environment. Mature forests in this functional forest group may be harvested. Several types of intermediate, sanitary and landscape forming cuttings are allowed. The wood harvesting may not been carried out during the recreational season, except in cases of natural disasters or when forests are damaged by biotic factors.

Protective forests are part of functional Group III. By January 1, 2008, these forests amounted to 344.0 thousand ha (16.1 % of the total forest cover). They are located in geological, hydrographical, cultural reserves, state parks and biosphere reserves, forests of protection zones and the others. The main management objective in these forests is to form economically productive stands at the same time capable of performing soil, air, and water protective functions, providing amenity services. Selective cuttings and clear fellings of a small area (up to 5 ha), intermediate and sanitary fellings are allowed in this type of forests.

Forests with a designated “commercial” function form Group IV. By January 1, 2008, they amounted to 510.9 thousand ha (70.5 % of the total forest cover). The main management objective in these forests is to grow productive stands with the main goal of wood supply, while at the same time respecting environmental and social aspects. All types of fellings are permitted in these forests. Clear felling areas must not be larger than 8 hectares.

This paper has selected as a case study the forests under the management Vilnius town administration and investigates the institutions managing these forests. In this work, the comparative, documentary, historical analysis and generalization methods have been applied.

2. Legal acts regulating use of forest

The policy for sustainable forest management in Lithuania has been developed considering the European Union legislation, international conventions, resolutions, agreements, programs and national legislation adopted in the other policy areas. The State, taking into consideration the role of forest as an essential renewable natural resource in the country, is implementing the state control functions by introducing a legal and financial policy framework for forest preservation, rational use of forest resources, provision of social public needs and environment protection [Lithuanian forestry policy and implementation strategy]. Within this framework, forests of the country are managed according to the principles of continuous and multipurpose use [Lietuvos Respublikos miskų jstatymas].

Due to the booming manufacturing during the 1980th - 1990th and its impacts on the environment, people of our Planet became concerned with the state of the environment. This has forced politicians to refocus the political priorities, moving away from the uncontrolled economic growth, which was the only focus. Greater attention has been paid to both reduction in environmental pollution and more sustainable use of natural resources.

As far back as in 1972 in Stockholm, the UN Conference on Human Environment stated about the immediate necessity to solve a problem of the environment decline and the need to look for new ways of steering further the development of the society. Ten years later, in 1982, the UN General Assembly enacted a historical decision - the World Nature Charter, which specified human responsibility for nature and human moral principles for the interface with other life forms. In 1984, the UN special Environment and Development Commission was set up which outlined in its report a new approach to the further development of our Planet and formulated the Sustainable Development conception. There Sustainable Development was defined as “…the development which meets current human needs without prejudice to the possibilities of meeting the needs of future generations”. Then the three main pillars of sustainable development were constructed: environmental protection, economic and social development, all of them being of an equal importance.

During the World Summit on Sustainable Development, which took place in Rio de Janeiro in 1992, basic principles of sustainable development were formulated. In addition, the Conference adopted the non-legally binding principles of forest management, protection and development. In the conference, the conception of sustainable
development was legalised in legally binding documents, and since then it became the most prominent society development ideology. Excessive consumption and overproduction were termed as the underlying causes of continuing environmental degradation.

The National Sustainable Development Strategy [National Sustainable Development Strategy], approved by the Government of the Republic of Lithuania, also defines sustainable development as a compromise between environmental, economic and social interests of society, presenting conditions to striking the balance between these priority areas and achieving the overall prosperity of present and future generations within the allowable environmental impact limits. Lithuanian approach to sustainable development contains eleven priorities, whereof an effective use of natural resources, biological diversity conservation, better landscape protection are under consideration. The state forestry policy has been developed and implemented within the context of these priorities [Lithuanian forestry policy and implementation strategy].

3. Characteristics of Vilnius town forests

Vilnius is a capital of Lithuania, serving as an economic, financial and commercial centre of the country with the largest economic, cultural, educational, scientific potentials and qualified human resources. Old architecture, abundance of tree-covered areas and modern townscape make Vilnius unique and one of the greenest towns of Europe. Vilnius town distinguishes itself by its rich and valuable natural environment. In Vilnius you can find the biggest Lithuanian morphological landscape variety composed of an expressive relief, forested areas and abundance of plant life. In order to counterbalance the sprawl of town, international and national nature frames crossing and passing the town are preserved. Their protection is essential for maintaining ecological balance of the town. Forests of Vilnius constitute a component of its nature frame, a very significant element of its landscape.

Forests cover 36 % of the Vilnius town territory and it overpasses the average forest coverage in towns by 2.2 %. The status of the state importance forbids changing the land designation of forestland and stops the urban sprawl to green areas. Surveys on the quality of life of urban inhabitants commonly report that simple elements of nature such as trees and water are considered to make towns more attractive and to increase the quality of life. Technological improvement gradually changes the human conscience, sets new priorities and modifies understanding of the life quality. An increase in the significance of amenity values, concerns over the healthy living environment direct to the need to enlarge green areas, to establish new and maintain old town parks, managing urban and sub-urban forests to meet the recreational needs of urban dwellers.

The fact sheet of the National Land Service under the Ministry of Agriculture of the Republic of Lithuania states that the total area of Vilnius town municipality is 40 056 ha. Forest land of Vilnius town covers 15 573.2 ha.

Fig. 1. Territorial distribution of Vilnius town land

As mentioned above, forests in Lithuania are divided into 4 groups according to their functional management objectives. According to the Forest Law, the forests belonging to Groups I and II can only be considered as “urban forests”. The Decree of the Government of Lithuania No. 1171 of 2001 defines the methodology of assigning forests to the individual groups. Based on the Forest Law and the above-mentioned Decree, the Government of Lithuania (Decree No. 1681 2004) approved distribution of Vilnius town forests into functional forests groups. This decision stipulates that the reserve forests of Group I occupy 110 ha (0.8 % of the total forest area). These forests are left to grow naturally and forest ecosystems are maintained in their original state. Very few forestry measures are taken in exceptional cases, only, as specified in the legislation applicable to the forests of this functional group.

Group II forests – forests of special purpose – cover 13 672 ha (99.2 % of the total forest area). It amounts to about 2 % of all Group II forests in the country. This share is significant and we believe that the approach applied to urban and sub-urban forest management in Vilnius town should be taken as a model for the approach potentially to be extrapolated to all forests belonging to Group II. Vilnius town forests of this functional group include landscape, botanical and geomorphologic reserves, protected nature landscape objects, habitats and other protected natural resource sites. The overall management objective of these forests is to keep them in the natural state, with the focus on preservation of the present biodiversity. Recreational forests of this functional forest group also cover urban parks, recreational zones of state parks and other forests designated to fulfil the recreational function. The overall management objective in these forests is to create conditions favourable for rest, preventive healthcare, hiking and other recreational activities carried out in nature. The ultimate goal in the management of these forests is to meet social and environmental needs, herewith serving as a buffer to the harmful effects of urban living and to maintain an ecological balance of these forest ecosystems. Thus, the management of Vilnius town forests has been
Vilnius town possesses many protected areas, six of them being of the state significance: Vilnius castle cultural reserve, Pavilniai Regional Park, Verkiai Regional Park, Karoliniškės landscape reserve, DvarČionys geomorphologic reserve, and Grioviai geomorphologic reserve. Nine Vilnius town municipality preserves are also located within the borders of Vilnius. The total area of Vilnius town protected forests is 6121.1 ha. Eight sites within its territory are rated to correspond to the selection criteria of the Natura 2000 network of protected areas. At a country level, forest sites, where endangered, vulnerable, rare or protected species of fauna and flora exist, are “key habitats”. Seven of such sites are in Lithuania and all of them are under protection.

One of the main functions of forests in Vilnius town is their use for recreational purposes. The recreational potential of the landscape comes from attraction of the landscape for its natural and cultural amenities and recreational potential, stimulating visitors to stay in nature, to see the sights of regional significance, to rest. Vilnius town forests in conjunction with the striking relief, the Neris and Vilnia Rivers and other landscape components compose very favourable recreational development conditions in the town. Such forests occupy 80 % of their total area.

Various economic measures can maintain and even increase the forests recreational value. Such measures are normally included in the forest management projects. Unfortunately, although more than 2/3 of Vilnius town forests are designated to serve the recreational function, almost no forestry measures are taken to maintain and strengthen the recreational potential of these forests. Littering of forests is a significant issue in the urban and sub-urban forests in Vilnius, which further reduces the recreational potential and availability of forest sites to meet the people leisure-related needs. In this respect, a slightly better situation has appeared in formally designated forest parks and regional parks as these territories are under better supervision. Almost all recreational infrastructures of the forests of Vilnius town are concentrated in these designated protected territories. The principal town Vingis Park is unique due to the natural values it contains. It encompasses the oldest and richest biodiversity in the surroundings. Trees in the oldest part of the park have never been felled, thus the features of natural forest ecosystems are still present and well preserved. Nowadays this forest park is being managed only marginally. It may look nice at a first glance; however, it needs love, care and resources. It is typical of the Park that old and dying pine trees have been replaced by naturally regenerating deciduous tree species, while pine tree stands are vanishing. It may be expected that in the course of 40 - 60 years, the forests in the park may change beyond recognition, turning from an old pine tree stands into deciduous tree groves.

The other parts of Vilnius town forests potentially suitable for recreational purposes are in even worse conditions and receive even less attention from their managers. Their recreational infrastructure in many places has deteriorated; their area is littered and cluttered with brushes and dead branches. Altogether, we may conclude that the recreational potential of forests within the boundaries of Vilnius is not fully used. Hence, there is a risk that with the increasing demands for recreational services from the town inhabitants, the needs for leisure activities will not be met.

However, having in mind that Vilnius town forests cover more than one third of the total territory of the town, too little attention is given to their management. One of the main reasons of such situation is that forest management in the urban and sub-urban forests is making loss to the forest management company in charge of these forests. Town forests are granted the status of the state importance and the Forest Law and the other rules and decrees setting the framework for forest management in the country determine their management and use. The overall conceptual approach to funding the state forest management in Lithuania is that the state forestry is financially self-sustaining. Therefore, expenditure on provision of social and environmental goods and services in general depends on the income generated from wood harvesting and sales. Since the overall management objective in urban and sub-urban forests is to satisfy largely the social and environmental objectives, the amount of harvested wood is marginal, incurring significant expenses and very small financial income from the forest management.

Theoretical assessments of the total value of forest ecosystems indicate that the benefits received from wood harvesting amount to just about 30 % of the total forest value. The rest of the value is attributed to furnishing ecological, cultural and other social functions. Regrettably, town forests assigned for ecological and social functions do not bring financial income, they generate costs.

Alongside the lack of financial resources to manage urban and sub-urban forests, the involvement of many administrative units with their own institutional cultures and objectives has a potential to create a lack of coherence, making the long-term planning of this relatively small forest area challenging and fragmented. The town forests being the part of the overall town infrastructure have a definite need for developing strategic views and priorities in a coordinated way in the forest management.
4. Peculiarities and development facilities of Vilnius town forests management and administration

In accordance with the Forest Law of the Republic of Lithuania [Lietuvos Respublikos miškų įstatymas], the State has an exclusive right of ownership of all forests designated to be of the state importance. All town forests are part of them. The area of Vilnius town forests has expanded during the last decades. However, these forests have not been set under the management of Vilnius municipality. For this reason, the forests in the territory of the town are under the management of several state forest enterprises, namely, four institutions are in charge of their management: Vilnius town municipality, Vilnius, Nemenčinė and Trakai state forest enterprises.

Vilnius town municipality administrates 6 547.8 ha of forests, Vilnius state forest enterprise – 4 688 ha, Nemenčinė state forest enterprise – 3 559.6 ha, Trakai state forest enterprise – 278 ha of forests. The remaining part – 499.8 ha of the forestland – is under other forest managers: the Ministry of National Defence – 131 ha, different collective societies – 70 ha, Vilnius University – 64 ha. It must be noted that as the boundaries of Vilnius town were expanding, a certain area of private forests were included as part of the town. Actually, the total area of the latter is very small – constituting only 17.2 ha.

![Fig. 2. Distribution of Vilnius town forests by managers, ha](image)

Notwithstanding a common argument that state forest enterprises have a clearly defined status of a state enterprise and employ the staff knowledgeable about the forest management, the forestry activities in urban and peri-urban forests are usually limited to some few traditional forestry measures allowed in those areas. Furthermore, it becomes evident that the present distribution of Vilnius town forests into the corresponding functional groups is not reasonable.

The system under which town forests of the state importance are managed by four separate administrative management units does not allow implementing a single and coherent forestry policy. It encumbers the development of a coherent strategic approach to set the management objectives, subsequently complicating the overall planning of the town green infrastructure.

We believe that it would be more rational if one manager were in charge of all town forests. If a common forest management project were prepared for all Vilnius town forests, including the development of a forest recreational system and similar aspects related to the satisfaction of social and environmental needs, it would become possible to implement all forestry measures consistently over the entire town forests territory. Nowadays, the forest management projects are prepared individually by each forest administrator. These plans are not harmonised. The forests managed by state forest enterprises are located in the territories managed by Vilnius town, Vilnius district and other municipalities. The objectives outlined in the forest management plans correspond to the entire territories of the corresponding state forest enterprises. Therefore, forest management in the territory within the town boundaries does not specifically address the needs of urban dwellers. In their plans the state forest enterprises seek to respect mainly the national legal framework for forest management, whereas the town administration has prepared General Development Plan applicable to its entire territory. Implementation of this Plan is difficult due to separate, and in some instances not necessarily complementary, objectives of the forest management plans of the state forest enterprises.

Town forests lack a coherent management approach. By definition, the state forest enterprises are oriented to profit making. Since the town forests are designated as functional Group II, forestry measures taken in these territories are minor and, therefore, the operations of a state forest enterprise in these forests is not profitable. This makes forest enterprises less interested in managing the forests in the territory of town, leading, in some instances, to the neglect and deterioration of social and environmental qualities of those forests.

Financial resources necessary for the management of town forests for the social (including recreational) and environmental needs come only from the budgets of the state forest enterprises. The budget of the state forest enterprises depend on their sales of wood. As the market price of wood is determined by a number of factors and is not stable, availability of financial resources for the management of town forests is also unstable.

Primarily, the forestry strategy for the development of town forests should be prepared and adopted. The town forests management program should follow and should foresee the necessary forestry measures to be taken in the forests of the entire territory of the town, without providing a specific reference to the current administrative division of forests from the management point of view. The program should consider and fully respect the sustainable development principles, striking a balance between the economic, social and environmental functions of forests. The program ought to identify clearly a certain total area of town forests and foresee the afforestation objectives and the realistic time schedule to achieve the desired goal. The strategy should give a full consideration to the
specificity of urban and sub-urban forests and a full respect to the needs of urban dwellers.

The town administration, managing less than a half of forests located in its territory has no possibility to influence the other institutions managing their forests. The structure of forest management working directly under the town administration deserves criticism. At present, the administration employs nine persons who are in charge of the supervision of four forestry units and the green town areas. This group of nine people working in a large department seem to be of a scant number and importance. However, these few employees are in charge of a large territory of the land under the town administration. The lack of efficient and effective administrative structures results in a poor state of town forests – the planned measures are not implemented, forests remain littered and unsuitable to recreation and leisure.

Even though the Forest Law defines a separate category of town forests, the management of town forests has not been regulated yet by any special legal act, which would have to be adopted for this purpose. All forests management and maintenance measures are applied in accordance with the general forestry principles, applicable to all forests of the country, without a separate approach to the management of town forests. In practice, the principles of managing urban and sub-urban forests should substantially differ from traditional forestry practices. In North America and Western Europe urban forestry has already developed into a separate discipline regulated by separate legislation and creates its own management traditions.

The concept of urban forestry has not been introduced into the legislation regulating Lithuanian forestry yet. Urban forestry should place a particular focus on creating and maintaining forest infrastructure for recreation as well as afforestation activities. Specialization in this type of forestry, considering the particularities of urban and sub-urban forests, would allow a strategic implementation of forestry measures aiming to fulfil social and environmental functions of those forests. Such forestry management, of course, should be based on the principles of sustainable development and should become an inherent part of the overall sustainable development strategy of the town of Vilnius.

One approach in seeking coherence with the management of town forests would be to place all state owned forests situated in the territory of the town under the administration of one manager. Historically, management of town forests in Vilnius was a concern of the town administration. The present situation, when town forests are managed by several administrations, has sprung up only recently, when the town territory was expanded. Allocation of forests to one administration would correspond to the approach taken in a coherent general plan of the town developed to cover the entire town territory.

Allocation of all forests to one manager is allowed in the context of the current legislation. The Land Law of the Republic of Lithuania and the Forest Law state that the right to manage natural resources, including the state forests, can be allocated on the behalf of the State to the state companies and municipalities. Should the town Council take over the management of these forests, appropriate structures within the municipality, capable of appropriately managing these state forests, would have to be set-up. It could be a separate institution funded from the municipality budget – some sort of a Vilnius town forests agency - which would have a similar status to that of the state forest enterprises. The current area of state forests within the territory of towns - about 14 thousand ha - would be sufficient for such an organisation. A good example of such an approach already exists in neighbouring Latvia. Forests belonging to capital town Riga are managed by a single enterprise – joint stock Company “Riga forests”. This approach would allow forming a coherent green infrastructure for the benefits of the urban inhabitants.

The second alternative management model to be applied to the forests within the town boundaries could be civil service working within the structure of the municipality administration. It would be in charge of defining the town forestry strategy, preparing appropriate legislation for all concerned forests and providing supervision for implementation of the relevant objectives outlined in the Vilnius General Plan. Their functions could involve setting overall policy objectives and identifying the main measures for their implementation. Then the management of town forests could be delegated to the enterprises with the main function of managing state forests. At present, the state forest enterprises have the best potential to fulfil these functions. One of the solutions under this option would be to designate all state forests within the town boundaries to the Vilnius state forest enterprise. Alternatively, the town administration could arrange an open call for tenders to carry out the functions of forest management of the town forests. The call for tenders could be open to both state and private companies.

5. Conclusions

1. Forests cover 36 % of the total Vilnius town territory and this percentage is higher than the country average. Forests are a very important element of the green infrastructure of Vilnius town.
2. Due to close proximity to a great number of town dwellers, urban and sub-urban forests are under intense pressure to provide them amenities and to meet their recreational needs.
3. Even though forests occupy one third of the entire area of the town, there is a lack of a strategic approach to their management and coherent implementation of the defined objectives in the entire territory concerned.
Currently, Vilnius town forests are managed by four different administrations: Vilnius town administration and three state forest enterprises. This management distribution impedes the fulfilment of environmental and, in particular, social needs of town inhabitants who are increasingly interested in recreational and leisure functions of the urban and sub-urban forests.

We argue that there should be a long-term strategy for development of all town forests for meeting the needs of current and future generations of town dwellers.

As one alternative to ensure the coherent implementation of this strategy, a single entity is proposed to be charged with the task to manage all state forests located in the territory of Vilnius town. This entity could be part of or directly subordinate to the town administration.

The second proposed alternative is to enhance forest policy development and supervision functions within the administration of Vilnius town and then to contract one or several companies for implementation of these policy objectives.

References


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Straipsnyje nagrinėjamos rekreacinių miškų valdymo problemas Lietuvoje. Aptariamas šalies ir Vilniaus miesto miškų susikirstymas į grupes ir pogrūdžius pagal jų funkcinę paskirtį, ūkininkavimo tikslus ir ūkinį režimą, nagrinėjama Vilniaus miesto miškų pritaikymo žmonių socialinių, rekreacinių, kultūrinių ir ekologinių poreikių tenkinimui priklausomybę nuo ūkininkavimo miškųose intensyvumo, aptariamas tolygus miško naudojimas (kirtimai), medynų amžiaus struktūros ir miško apsauginių funkcijų kaita, rekreacinių išteklių, nagrinėjami Vilniaus miesto miškų valdymo pranašumai ir trūkumai ir siūlomi jo tobulinimo būdai.