

Division 9: Forest Policy and Economics
Research Group 9.06.00:
Forest Law and Environmental Legislation



Legal Aspects of European Forest Sustainable Development

17th International Symposium in Prague
Czech Republic, May 18 – 20, 2016
Proceedings

Editors

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IMPRESSUM

Legal Aspects of European Forest Sustainable Development

Šulek Rastislav, Hrib Michal, Šodková Miroslava (Editors)

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PREFACE

IUFRO research group 9.06.00 (former 6.13.00) has been operating world-wide over decades now to collect, evaluate and document, disseminate and also critically analyse developments in forest law and environmental legislation, with special emphasis on Central and Eastern European countries, in particular those with economies in transition. All this within the unit's general and foremost objective, i. e. to foster exchange of information amongst researchers and practitioners active in the domain of forest law and environmental legislation, and to permanently review the state of the subject, thereby setting priorities concerning research and practice. A number of publications have been produced, proving how the unit meets its high standards (cf.<http://www.iufro.org/science/divisions/division-9/90000/90600/publications/>). Thanks to the many lawyers amongst that group, it has also been highly successful in accomplishing the scientific transfer between traditional forestry communities and legal circles. The group's work distinctively contributed to ease long-standing deadlocks by connecting policy and law in research and in real life as well as in policy and law design and foremost in policy and law implementation.

Since its beginning in 1998, this IUFRO research group has regularly been organising workshops to discuss legal aspects of European forest sustainable development in a non-formal and thus highly productive way. The 1st International Symposium on (then) "Experiences with new forest and environmental laws in European countries with economies in transition" was held in Ossiach, Austria in June, 1998. This meeting was followed by the 2nd symposium on the same topic, again in Ossiach, Austria in October 1999 (with presentation of its main results during the XXI IUFRO World Congress in Kuala Lumpur, Malaysia, in August 2000). The 3rd International Symposium was held in Jundola, Bulgaria in June, 2001, followed by meetings in Jaunmokas, Latvia in August, 2002, then in Zidlochovice, Czech Republic (May 2003). After that follow-up symposia took place in Poiana Brasov, Romania, in June 2004; in Zlatibor Mt., Serbia, in May 2005; in Istanbul, Turkey, in May 2006; in Zikatar, Armenia, in June 2007; in Sarajevo, Bosnia-Herzegovina, in May 2008 as well as in Zvolen (Slovakia) in May 2009, in Lemesos (Cyprus) in May/June 2010, Kaunas (Lithuania) in May 2011, in Minsk (Republic of Belarus) in September 2012, and Tirana (Republic of Albania), in May 2013. Fifteen years of intensive research work resulted in the allocation of a session on "Innovative forest and environmental legislation for better diversity" to our group, during the XXIV IUFRO World Congress in Salt Lake City, USA, in October 2014. In May 2015, the 16th International Symposium on Legal Aspects of European Forest Sustainable Development was held in Brasov, Romania – for the first time the meeting was organized as a cross-border meeting hosted jointly by two countries.

Following the new tradition, on the occasion of the 17th International Symposium on "Legal Aspects of European Forest Sustainable Development" in Prague, forty-two researchers and practitioners originating from eighteen countries pre-registered to attend this meeting and, in the end, twenty-five used that unique opportunity to get acquainted, involved

and familiar with the new legal situation mainly in European forests. All participants were profiting from the presence of colleagues from Albania, Armenia, Austria, Bosna and Herzegovina, Czech Republic, Japan, Romania, Slovakia, Slovenia and Turkey.

Besides the introductory session, thirteen presentations on ten countries were offered to the audience. Numerous discussions from the point of view of both either the scientists or the practitioners on a broad range of topic were held which, backed by the presentations, emphasized the general issues of forest sector institutional reform strategy and its legal basis. Special attention was devoted to the issues of liabilities resulting from public access to forests. Description and analysis of legal framework for protected areas and rural development in connection to the management of forest assets were of a great importance as well. The hosts also shared their opinions on problems of forest property restitutions in CEE countries. Moreover, the business meeting of the RG 9.06.00 where the participation at the IUFRO 125th Anniversary Congress was discussed was held during the symposium.

The symposium was kindly hosted by the Faculty of Forestry and Wood Sciences of the Czech University of Life Sciences Prague, Czech Republic (CULS) and supported by the co-host organisation, the Technical University in Zvolen, Slovakia. The meeting was organized by Michal Hrib of CULS and his respective staff at CULS together with Rastislav Sulek and Jan Lichy of the Faculty of Forestry of Technical University in Zvolen and Peter Herbst (IUFRO 9.06.00).

Interested in IUFRO 9.06.00

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or contact the coordinator via email <rastislav.sulek@tuzvo.sk>.

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IUFRO 9.06.00 Forest Law and Environmental Legislation

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FORESTRY INSTITUTIONAL REFORM STRATEGY AND IMPLEMENTATION IN REPUBLIC OF MOLDOVA

BOGDAN POPA¹, FLORIN AURELIU HALALISAN², IOAN VASILE ABRUDAN³

Abstract

Recent political developments in the Republic of Moldova are oriented towards institutional reforms at all levels of central administration, as stated in the *Reform Strategy of Central Public Administration* and in the *Government activity program "European Integration: Liberty, Democracy, Welfare"*. In this recent context, the Moldovan Government is emphasizing the importance of restructuring the forestry sector according to the *General Plan of Actions regarding the Implementation of the Strategy of Sustainable Development of the National Forestry Sector*. The analysis presented in this paper confirms the general need to develop a national Strategy for Institutional Reform of the Forestry Sector in Moldova (FIRSM) as well as the need for a consensus to be reached among main players in nature/forest resources use and conservation in the country. The paper presents the process of the elaboration of the FIRSM guided mainly by the need for a clear separation of the regulatory and administrative roles of various institutions involved in forestry, the need for more transparent, effective and efficient administration of both state and communal or/and private forests as well as an increasing involvement of the private sector in forest resources use and conservation. The result of the process is a comprehensive strategy for forestry sector institutional reform. The paper also include the description of the efforts being undertaken to implement the strategy in the transition context, as well as the way the strategy implementation will address the main identified issues of forestry sector in Moldova.

Key words: transition, institutional reform, separation of functions, forestry, Moldova

Introduction

Study context

In the last decades, former communist countries with centralised economies in Eastern and Central Europe recorded important economic reforms triggering economic, social, cultural, spiritual and political changes (Soloviy and Cubbage, 2007). These changes resulted in new opportunities for the forest sector (Lazdinis et al., 2005). In the former Soviet Union

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with a non democratic political system (Lazdinis et al., 2008) the resources were owned solely by the state (Gardner, 1997), being used based on the state established regulations (Kallas, 2002). State owned forests didn't benefit from financial support for a more efficient wood harvesting and forest management generally (Lazdinis et al. 2008). Reform of the state organizations represented an economic enterprise, oriented towards forest sector liberalization, accompanied by restitution of forest land and creation of a participatory framework for stakeholders' consultations (Lazdinis et al., 2008). The sustainable development of the forest sector implies an equilibrate balance between economic, ecologic, and social aspects of the sector (Nilsson, 2005). Thus, the majority of the countries realised the need for a holistic approach of the policy elaboration process that needs to be closely linked with rural development and environment conservation (UN, 2001).

Recent political developments in the Republic of Moldova are oriented towards institutional reforms at all levels of central administration, as stated in the *Reform Strategy of Central Public Administration* (GD 1402/2005) and the *Government activity program "European Integration: Liberty, Democracy, Welfare"*. In this recent context, the Government is emphasizing the importance of restructuring the forestry sector according to the *General Plan of Actions regarding the Implementation of the Strategy of Sustainable Development of Forestry Sector* (GD 739/2003). At the same time, the World Bank analysis (WB, 2013) confirms a general need and consensus on the need for Moldova to develop and implement a national Strategy for Institutional Reform of the Forestry Sector (FIRSM). Consequently, the European Commission financed European Neighbourhood and Partnership Instrument – Forest Law Enforcement and Governance (ENPI-FLEG) included, for Moldova, the elaboration of the FIRSM⁴. The envisaged FIRSM document was supposed to include, in particular, the following important issues and actions to be undertaken (WB, 2012): optimizing territorial re-organization of forestry institutional system; privatization of certain forestry enterprises/assets; further development of communal/municipal and private forestry; promoting private sector participation and forestry public-private partnerships; decentralizing certain activities and delegation more rights to local forestry units; improving decision making and combating corruption; strengthening institutional capacity to implement national forestry policy; formulation of an efficient mechanism (i.e. timber sales and pricing) for forestry revenues and rational utilization of them; more efficient accountability of forest revenues and expenditures; reducing illegal forest activities; rational use of human resources. Leading and guiding the FIRSM process was done by a team of experts from Transylvania University from Brasov.

Forestry in Republic of Moldova

⁴The program promoted the development of improved forest law enforcement and governance arrangements in seven targeted countries: Armenia, Georgia, Azerbaijan, Moldova, Ukraine, Belarus and Russia. The program is being undertaken as a partnership among the World Bank, IUCN and WWF. The program aims to define the policy, legal, institutional and economic obstacles to improve forest governance (including the control of illegal logging); test pilot innovative approaches to overcoming these obstacles; enhance the capacity of key stakeholders to implement forest governance reforms; and disseminate the lessons learned at national, regional and global levels.

Moldova has a relatively low cover of forest vegetation (circa 446,600 ha), while forest cover is only 11.4% of the national territory or 379,500 ha. Forests tend to occur in hilly areas with the majority of forests located in the central part of Moldova, with slightly less forests in the north and even fewer in the south (Figure 1). The forests are mainly broadleaved with oak, ash, hornbeam, black locust and poplar being the most significant species (WB, 2014; TUB, 2015).

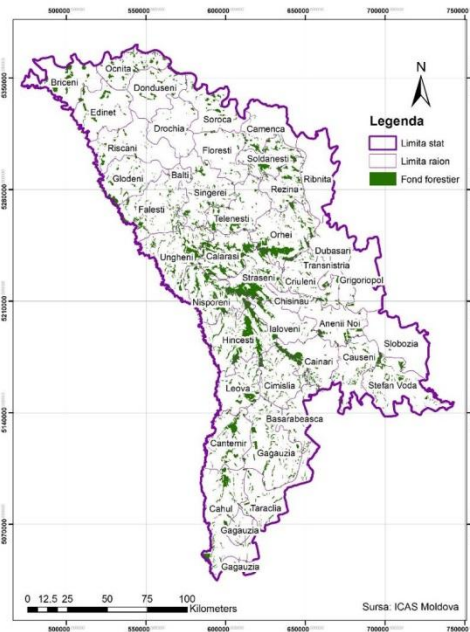


Figure 1 National Forest Fund (NFF) of the Republic of Moldova (TUB, 2015)

The vegetation outside the NFF includes shelterbelts and spontaneous forest vegetation. Generally, forests are distributed non-uniformly and are highly fragmented (there are circa 800 forest bodies ranging from 5 to 1500 ha) (TUB, 2015). Oak-type forests have historically been the most common in the country. Nowadays only 27% of oak stands are regenerated from seeds (generative origin), while the rest are regenerated vegetatively as a result of former coppice management. According to the National General Cadastre Registry, 86.6% of the NFF is owned by the state (through Agency Moldsilva and its forest units), 12.7% by Local Public Authorities (LPAs), circa 4% are properties of other state institutions (e.g. Botanical Garden, Central Authority for Waters), and private ownership represents only about 0.6% (WB, 2014). The average annual volume increment is around 3.3 m³/ha/year. 100% of the forest area is available for wood supply compared with an EU-27 average of 73% (TUB, 2015). Removals from forests over the past number of years have averaged approximately at 0.45 million m³ with broadleaved species. Data collected and processed by ENPI – Program in Moldova - gives reason to believe that the actual consumption of wood at the level of the country is much bigger – around 1 million m³ (Galupa et al., 2011). If the data are reliable enough, removals may represent almost 90% of the total growing stock volume increment.

Moldova has good practice in the sustainable and close-to-nature type of management of its forest resources. In terms of forestry practice, the management of forests must be carried out according to national norms and technical parameters for the state owned forests. Publicly owned forests are covered entirely with forest management plans. The forest management plans (FMPs) which are valid for a 10-year period include management prescriptions for each forest stand. The FMPs are prepared by ICAS (Forest Research and Forest Management Planning Institute), a specialized forest management institution under the Moldsilva Agency. Plans are approved by Moldsilva Agency and their implementation is mandatory. Any changes in FMPs are obliged to be thoroughly substantiated and undergo an intricate and bureaucratic procedure before being accepted. For communal and private forests there are limited FMPs. The regulatory framework is not imposing the obligation of elaborating FMPs for those forests.

The forest sector's direct economic contribution was relatively small at just 0.28% of GDP in 2014, while wood products represented only 0.5% of the total exports and 1.7% of the total imports in 2012. Additionally, the forests provide critical habitats for biodiversity (GD, 2015) and other essential environmental benefits such as soil protection, water regulation and carbon sequestration. Most sector analyses (WB, 2014; TUB, 2015) highlight the underused potential of the forestry sector. The forestry sector is not a major employer, offering an approximate of 6,000 jobs, mainly in the rural areas in forest administration, harvesting and processing. The primary wood processing industry consists in several processing facilities managed by territorial state forest enterprises under the subordination of Moldsilva. The total processing capacity is around 120, 000 m³ exceeding the available resource (WB, 2014). The processing facilities are considered technologically obsolete.

Institutions and organizations involved in forestry sector in Moldova are: Ministry of Environment, Ecological State Inspectorate, Moldsilva Agency and the subordinate state enterprises and local authorities owning forests. According to GD no 847/2009, Ministry of Environment is regulating the environment protection and natural resources utilization. Moldsilva Agency is the central administrative authority, under the authority of the Government, enabled to implement the state policy in forestry and hunting. Moldsilva has regulatory and administrative attributes. The structure of Moldsilva includes 25 subdivisions, including 16 state enterprises for silviculture, 4 state enterprises for silviculture and hunting, 4 natural reserves and ICAS.

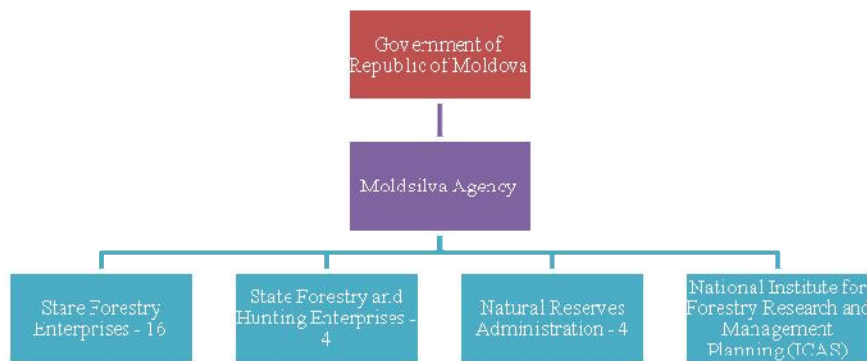


Figure 2 Moldsilva organizational map (WB, 2014)

Under the 20 enterprises and 4 reserves there are a number of 80 forest districts (FD). The Ecological State Inspectorates has important attributes regarding forestry issues as controlling and issuing authorization for FMPs implementation, and for harvesting. LPA are communal forests owners. According to Art. 9 of the Forest Code, the local authorities have certain obligations regarding forest administrations as organizing and coordinating usage, guarding, regeneration and protection of forest and forest lands they own. There is no very precise separation of attributes between LPA and Moldsilva as long as the regulatory framework is stating that they have to collaborate for the good of the communal forests without expressly describing the kind of this collaboration.

FIRSM elaboration process

The reasons for the institutional reform ranged from general factors to particular ones. The general factors are more or less common among countries with economies in transition in Eastern Europe: i) emergence from a centrally planned economy; ii) view (political / societal) that the State should not operate in commercial activities; iii) desire by society that the forests should be protected and enhanced; and iv) the initial rationale for State involvement no longer applicable e.g. strategic timber reserves, rural development, social needs etc. (WB, 2012). For Moldova in particular, the need for precise separation of regulation and administrative roles of different institutions in the sector, the need of a more transparent, effective and efficient administration of both state and communal and private forests as well as an increasing involvement of the private sector in the sector are the main reasons for which, forestry sector in Moldova need to adopt a comprehensive strategy for institutional reform of the sector.

The development of the FIRMS was officially launched on 29th of March 2012 in a round table at Moldsilva Agency by the general management of Moldsilva Agency, in the presence of the consultants (figure 3). Part of the official launch included a press release that was debated and approved by consensus and uploaded on Moldsilva and ENPI – FLEG sites.

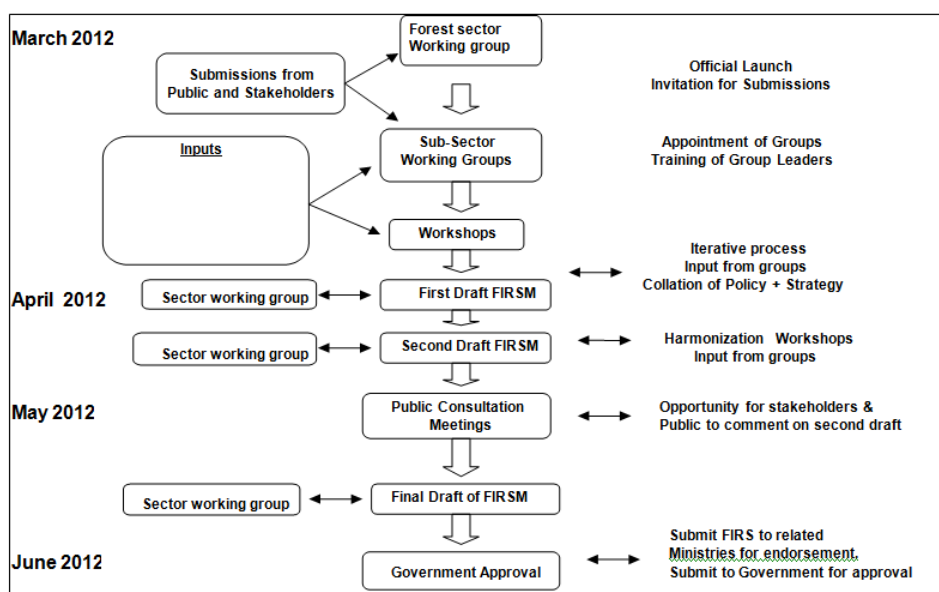


Figure 3 Methodological approach for FIRSM development

Based on discussions with stakeholders and experience from other countries, the project team agreed on a workshop format with representatives of the guiding team of consultants and Moldsilva, as the forum that would facilitate participation and consensus decision-making within the development of the FIRSM. A series of six two-day workshops took place. The working group agreed with representatives of the Moldsilva Agency to continue with the series of six sub-sector working groups based on the proposals of the consultants. Each working group was comprised of representatives of the sector being addressed and headed by a group rapporteur with responsibility for the working of the group. The appointment of the group members – ranging from five to eight depending on the sub-sector – was undertaken by the sector working group with inputs from the guiding consultants and included the representation as broad as possible. The six working groups were: institutional framework; forest management and forest planning; forest products and services; financial management; human resources, research and education; environment protection, protected areas. The function of each working group was to develop a strategic statement in the light of the institutional reforms needs and to identify the strategic actions necessary to be undertaken to implement the strategy. No direction on the required planning horizon has been given in advance of the workshops. The decision on the planning horizon will be an output from the workshop process.

To ensure that the workshops achieve the required outputs and that both rapporteurs and participants are aware of their role and the FIRSM process, training for rapporteurs was undertaken by the consultants. The objectives of this training were (a) to familiarize rapporteurs with the process of developing a strategy, (b) to understand what is meant by SWOT analysis, strategic objectives and strategic actions, (c) to impart an understanding of

what is expected from them in the forthcoming workshops and (d) to train them for their specific roles as rapporteurs. In addition, the training workshop assured that identified rapporteurs were suitable in terms of personality and ability.

The SWOT analysis was conducted by subsector rapporteurs in a common approach and the results are to be reported in a common format.

Table 1 Summary of SWOT analysis during elaboration of FIRSM

Strengths	Weaknesses
<ul style="list-style-type: none"> - Forest resources increasing - Good management practices in Moldsilva - Good technical expertise, especially in afforestation - Organized management of natural reserves - Existing wood processing capacities 	<ul style="list-style-type: none"> - Overlapping between management/regulation/control functions - High bureaucracy - Forest resources are unevenly spread over the country - Uneven personnel policy - Low added value along the commercial/processing chains - Impossible to identify the profit centres - High level of illegal logging - Low traceability of wood - Low transparency of forestry related decisions - No regulations for LPA forests management
Opportunities	Threats
<ul style="list-style-type: none"> - Demand for forestry products - Increasing development of private enterprises - Carbon market - Increasing interest for eco-tourism - EU accession - Technical developments in terms of regeneration material production (nurseries) - Decision makers interest in strengthening the legal framework for forestry sector 	<ul style="list-style-type: none"> - Increasing political influence - LPA unable to take care of their own forests - Corruption - Climate Change

The function of each working group was to develop a policy statement and identify the strategic actions necessary to be undertaken to implement the policy. The first subsector is influencing all other subsectors. Therefore there was the need to coordinate (by participation of the subsector 1 – institutional framework in other subsector workshops) with all other subsectors. The agreed output reporting format for the sub-sector working groups was: **(1) Current Features (Context):** Identification of key developments to date, an assessment of the present status, and a commentary on the strengths and weaknesses; **(2) Existing Legislation and Policy:** Statement of what policy and legislation is in place, together with identified weaknesses if any; **(3) Policy Considerations:** Identifies the issues relevant to the future development of sub-sector under consideration within the context of the overall FIRSM; **(4) Policy Statement:** A clear statement of policy based on considerations identified; **(5) Strategic Actions:** Specified actions to be undertaken are summarized together with the

agency responsible and timing. Items 1, 2 and 3 took the format of a SWOT and policy context analysis.

The members of the central working group considered the fact that for the purpose of designing a sustainable and generally accepted reform strategy the consultation process should continue for an additional period of one or two months. Thus ensuring the opportunity to collect and incorporate contributions and submissions for the FIRSM from different interested entities which can only improve the participative character and the applicability of the document.

FIRSM

The elaboration of FIRSM started from a number of principles formulated and agreed at the beginning of the elaboration process. They are:

1. There is only one policy regarding the forestry sector that is elaborated at central governmental level.
2. The state must have strong position and adequate capacity for formulating and implementing a clear policy for forestry sector.
3. Regulatory and monitoring function must be institutionally separated from the management function.
4. Forest management, production and commercial activities must be also separated based on cost centres.
5. Protected areas administration must be institutionally separated from the regulatory and monitoring functions.
6. Private business environment must have access to products and services markets within the forest sector

The institutional reform process has two main sections (WB, 2014), as follows.

I. The operational section – Create only one state forest enterprise dealing with forest administration and some connected activities (regeneration, harvesting, processing) but having cost/profit centres being separately accountable for the main administration activity. This will allow the economic evaluation and reporting for each main activity. There are incentives for a real separation between the resource management and resource valuation on the market. With proper opening for the private sector the self-regulating mechanisms against corruption, conflict of interest and poor economic performance can help the sector perform better in all aspects. This section also includes the search for and implementing solutions for the management of communal forests and private forests that are now almost unmanaged.

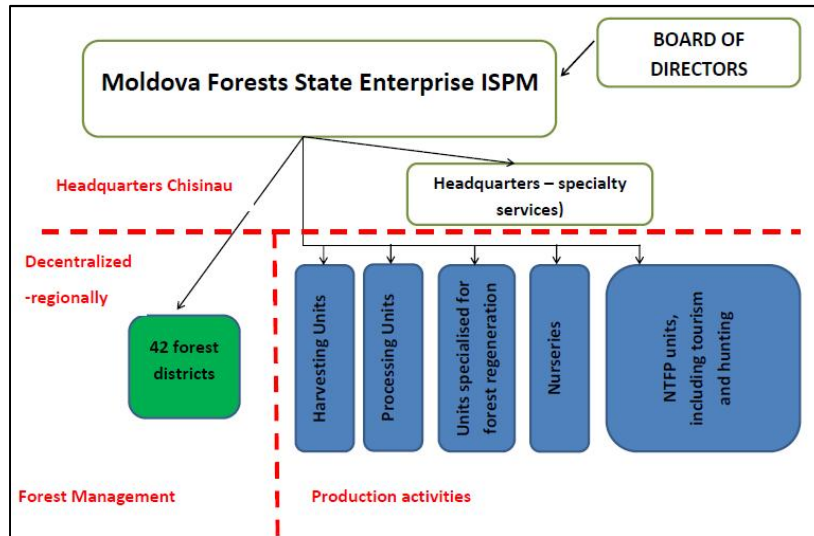


Figure 4 Structure of the state forest management company (operational section)

II. The regulation section – Transform present Moldsilva agency into a real authority in terms of forestry dealing with the regulating and monitoring functions only. This way the whole operational process described above will not be politically influenced by managers that are also regulating the sector. In order to implement proper institutional reform there is the need for an independent part to ensure the enforcement of the law. Another argument is the fact that sooner or later there will be structures for forest administration that will belong to communities. They should not be regulated by the main competitor on the market.

If Moldsilva continues to be involved in day by day management, the regulating and monitoring functions may be corrupted and lead to less effectiveness of the reform and less transparency within the sector.

To achieve policy aims, specific strategic objectives and actions were defined. They are prioritized and the main organization(s) responsible for implementation together with the agreed supporting partner organization(s) are identified. This partnership type approach towards collective responsibility for achievement of objectives will facilitate successful implementation and achievement of policy goals.

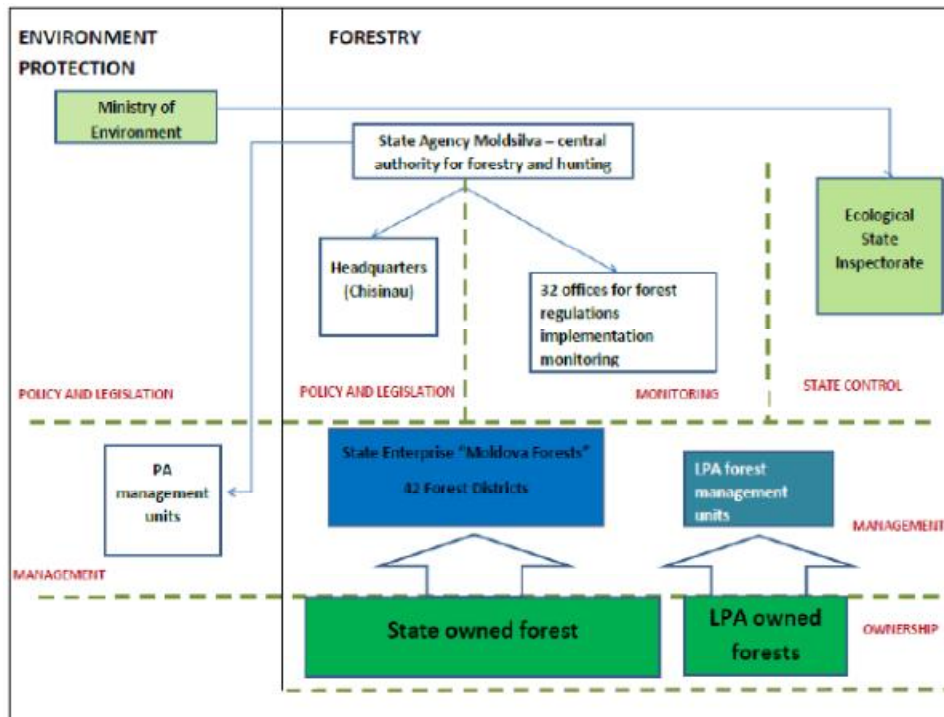


Figure 5 Separation of management, regulatory and control functions (regulation section in FIRSM)

Conclusions

Moldsilva dominates the forestry sector. It is the largest forest owner, the dominant supplier of firewood and logs, the main employer and the main user of contracting services within the forest sector. It is important that as an organization it is able to deliver upon the range of services that society now requires. To do this, Moldsilva will need not merely to rearrange the functional units within its structure but also to undertake a more fundamental reform focusing on good governance, the implementation of strong robust budgeting and financial systems, more transparent business processes and identifying and developing efficiencies throughout the organization (Figure 4). Only thus will the organization approach become sustainable and deliver on its remit from government and society, and only thus will forests be able to deliver on the range of environmental services and non-timber benefits. This will require investment in resources as for example in IT, forest management information systems, staff training and in nurseries if the planned afforestation program and the development of more stable forest ecosystems is to be achieved (WB, 2014).

Both political and professional bodies manifest resistance to change. Even if initially the decision makers in forestry were strongly in favour of the strategy implementation, later on political evolutions prevented the implementation decision to be taken. Therefore, even if the strategy elaboration ended in 2013, till now there have been no significant steps towards

its implementation (some institutional steps were taken – Moldsilva Agency is now under the Ministry of Environment, economic assessment of forest enterprises under Moldsilva is being currently undertaken). There are hopes that with the new context of EU association agreement and being under pressure of the donors for different development programs (including climate change and forestry), the political decision makers will finally initiate and implement the FIRSM.

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FIRST STEP OF SLOVENIAN FORESTRY REFORM: NEW LAW ON MANAGEMENT OF STATE FORESTS

FRANC FERLIN¹

Abstract

The paper presents shortly the past Slovenian state forest management situation, the objectives of the new Law on management of forests in the ownership of the Republic of Slovenia (endorsed in February 2016), the functions and anticipated activities of the newly established company “Slovenian State Forests” L.L. in 100% state ownership, the relations between the company and the state as forest owner, as well as other important legal solutions related to state forests, the anticipated extent of the state forest utilisation and production of wood, and the current company’s establishing process. A critical evaluation of the new state forest company and management model and its feasibility is also presented. The model has some important strength, but also weaknesses and risks. Assuring continuity in the state forest utilisation, production and supply of wood through the newly established company, as well as fulfilment of the Forest fund’s objectives, is the biggest challenge in the short-term.

Key words: forestry organisational model, state forest legislation, state forest management, state forest company, Slovenia

Introduction

The Slovenian forestry reform developments had already been presented internationally during previous years (Ferlin 2013, Ferlin et al. 2014 and Ferlin 2015). The forestry reform process, which started already in 2012, initially offered the following three possible forestry re-organisation models (described by Ferlin, 2013): the forestry agency (responsible for all forests) combined with the state forest concession system; the public forestry enterprise for management of state forests and provision of services for private forests; and the forestry agency (responsible for all forests) and the state forest company (in 100% state ownership, or as share-holding company) for management of state forests. According to our feasibility analysis (Ferlin, 2013) based on institutional and financial aspects, the first model had been considered as the most convenient for the current forest sector situation.

After the first brake of the reform process (in 2013), caused by the Government change, the Ministry responsible for forestry decided for the third re-organisation model and submitted it (in 2014) with the draft Law on management of forests in ownership of the Republic of Slovenia [8]. This solution was launched as an institutional response to a large ice and snow brake in that year. However, because the proposed solution was assessed as having the long-term implications on the whole forestry system, which should actually previously be changed through the Forest law [6], and/or because the solution targeted the state forest only, it was not accepted by main stakeholders and the then governmental coalition.

After that (in 2014) another reform brake caused by change of that Government followed. The newly established Government (at the end of 2014), of which the minister responsible for forestry remained the same, however insisted on the same re-organisation

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model and submitted it (in early 2015) within the proposal of the Law [9] of the same title and almost the same content. According to our analysis (Ferlin 2015) based on Slovenian forestry reform principles, this model could not be recommended as optimal for fulfilling the wider reform objectives. Instead, a joint forestry enterprise model for state and private forests had been recommended. Similar model had been previously recommended by the forestry faculty representatives (Diaci et al. 2012). The Ministry responsible for forestry however neglected these recommendations and further insisted on the adoption of their model.

After intensive political discussions and negotiations lasting almost for one year, the Governmental coalition agreed on the proposed Law with some important additions - related to supporting the use of wood and the development of wood value chains. The Law on management of forests in the ownership of Republic of Slovenia [10] with its new state forest company was then finally endorsed (in February 2016). By this act, the first-step of Slovenian forestry legal reform was done. The second one should, as per the ministry's plan, follow up to 2017, through the change of the 1993 Forest law [6].

The aim of the paper is to present the past state forest management situation, the objectives of the new Law, the functions and anticipated activities of the new state forest company, the relations between the company and the state as forest owner, as well as other important legal solutions related to state forests, the anticipated extent of the state forest utilisation and production of wood, and the current company's establishing process. Finally, the paper's aim is to present a critical evaluation of the new state forest management model and its feasibility.

The current state of forest management situation

The current Slovenian state forestry system was established by the 1993 Law on Fund for agricultural land and forests of the Republic of Slovenia [7] in connection with the 1993 Forest law [6]. A unique state forestry organisation model - based on separation of the state forest management and the forest service functions - was introduced. The state forest management function was entrusted to the newly established Fund for agricultural land and forests of the Republic of Slovenia (FALF), while the forest service function to the newly established Slovenia Forest Service (SFS), both of them as independent state agencies. For the utilisation of state forests, however, the concessions system was introduced and the concessions granted for 20 years directly by the Law (in 1996). The incomes from the concessions became the revenues and source of financing of the FALF.

Main concession holders were the former public forestry enterprises (15 of them), which had been privatised after separation of their public forestry service function and transfer to the SFS. The direct concession immediately followed as a kind of compensation to these enterprises for their lost forest assets, which previously (in 1992) became the state property. The right assured the continuation of the forest utilisation by these enterprises within the forest regions, which they previously managed. The concessions include forest utilisation operations, forest infrastructure building and transport of wood, forest protection and silvicultural operations, and the selling of wood assortments. The concessions however exclude the forest management planning and professionally technical tasks for forest management at operational level, including marking of trees for felling (which have been performed by the SFS). Extent of the concessions was based on forest management plans and had been adapted annually.

Due to a monopolistic position of the concession holders, the income from concessions was much too low for the state as forest owner and the FALF, although it has been increasing toward expiration of the concession contracts. Supply of the domestic wood industry with the wood from state forest concessions has also not been satisfactory. On the other hand, significant amounts of raw wood have been exported by the concession holders, particularly to Austria and Italy.

The new state forest management law

The aim of the new state forest management Law [10] is to: (a) assure the highest possible forest yield and quality of wood assortments under respecting the sustainable, multi-purpose and close-to-nature forest management principles, (b) increase the state forest area in long-term, (c) contribute to nature conservation objectives, in particular those of Natura 2000 and of protected areas; (d) contribute to establishing and development of forest-wood value chains, promotion of the wood products and creation of green jobs; (e) contribute to rural development objectives, in particular to the maintaining of mountainous farms with limited production possibilities, and (f) enable forest, forestry and wood related education and scientific work.

The new state forest company

The new company, which has been established for realisation of the objectives of the Law [10], i.e. the Company “Slovenian State Forests” (CSSF), has been defined as company with limited liability (L.L.)² in 100% state ownership, with no possibility of privatisation. The main function of the CSSF is the management of state forests, which also includes disposal and acquisition of forest land. The CSSF is also expected to perform other business activities needed for effective and efficient management of state forests, such as organizing centres for collection and processing of wood, and creating the conditions for development and establishment of forest-wood chains with the high added value.

The forest management function includes contracting, or own execution of timber harvesting, skidding and transport of wood assortments, building and maintenance of forest infrastructure (except for maintenance of forest roads which were entrusted to municipalities already in 1993), as well as the sale of timber and wood assortments and leasing of forest land. The timber selling at standing has been however limited to a minimum extent by the Law. Forest protection and silvicultural operations, and operations for provision of ecological and social forest services, as well as utilisation and sale of other forest goods are also part of the CSSF’s activities. A part of the state forest management function, namely the long-term forest management planning and the professionally technical forest management tasks, including marking of trees for felling, are still remaining out of the CSSF and will be further performed by the SFS.

It has been anticipated within the explanations of the Law [10] that about 80% of the forest operations will be outsourced to private sector and 20% executed by CSSF’s capacities. The CSSF has to respect the public procurement rules in case of contracting forest operations. It could however use the long-term contracts for the sale of wood, particularly in order to support the prospective local value chains.

The state forest company and owner relations

² d.o.o. according to the Slovenian legal system.

By the Law [10], the state forest-related provisions of the Law on FALF [7] have been put out of the power and the Forestry section of the FALF abolished. For setting the state forest owner-manager relations, the CSSF is signing the management contract with the Ministry of agriculture, forestry and food (MAFF). A separate budget fund called the Forest fund has also been established under the Law. To that fund to be managed by the MAFF the CSSF shall pay 20% of its annual wood selling revenues. The money shall be used, as priority, for payments of obligations on behalf of the state as forest owner, for payments of obligations to municipalities (5% of value of wood assortments) and for payments of compensations for forgone yield of the nationalised forests (which have been returned to former forest owners). The rest of the money could be used for promotion of wood and the forest-wood chains, for the CSSF's services related to confiscated wood, and for Natura 2000 measures in private forests.

The extent of company's forest utilisation and wood production

The CSSF will manage with 235, 000 hectares of forests, which is 20% of all forests in Slovenia. The annual felling until 2020, planned by regional forest management plans, is anticipated at up to 1.5 million m³ (6.4 m³ per hectare) at standing, or 1.3 million m³ of wood assortments. From that amount, 52% of wood will be coniferous and 48% broadleaves. In terms of wood assortments, there should be 50% of logs (38% of coniferous and 12% of broadleaves), 37% of other technical and industrial wood (23% of coniferous and 14% of broadleaves) and 13% of fuel wood (of broadleaves).

The company's establishing and operation process

The seat of the CSSF will be in the south-eastern part of Slovenia (in a small town Kočevje) where the largest complex of Slovenian state forests is located. Within the CSSF's portfolio, there will also be one current concessions' holder company (from Kočevska region) with dominant state ownership which has been annexed to the CSSF as a daughter company by the Law. This company will continue with performing all its functions (from the forest utilisation to the primary wood processing) in its own capacities.

In the beginning, the CSSF will – with the exception of the mentioned daughter company which is fully capacitated for performing all operations – only contract the forest operations and the wood transport services, based on public procurement law, and sell wood assortments from all state forests on its own.

For establishing the needed company management and forest utilisation capacities, starting with the forest operations, and organising of the CSSF's wood collection centres, the CSSF received a remarkable financial injection from the state budget, as well as a state guarantee for a remarkable amount of credit funds for these investments.

The CSSF is currently (April to May) in the process of establishing its management and organisational structures. By 1st of July the CSSF shall take over the forest management duties from the FALF, including its forestry related staff (about 25). It is anticipated that the CSSF will altogether employ about 100 forestry staff only, mainly for procuring and controlling the contractors' forest operation services and for assuring the transport and selling the wood assortments.

Critical evaluation of the reorganisation model

With the new company the management of state forests is finally (after 23 years) arriving back into the forestry's hands, which is the most important. The forest management function will however still remain separated between the very CSSF and the SFS, which is not the best in terms of efficiency of the forest management and the CSSF itself. This is also quite an exception in comparison to other European state forest enterprises. As the SFS activities are financed from the state budget, the CSSF will consequently have no expenditures for these services, so its profit from the forest management will be higher.

Contrary to the forest management activities, which have been precisely defined by the Law, the activities related to the use of wood, such as organizing the centres for collection and processing of wood and creating the conditions for development and establishment of forest-wood chains, have not been defined sufficiently and may pose a certain risk for the company's development and sustainability - in case the CSSF would orient itself too "deeply" in the wood processing and value chain developments (as its non-core businesses).

Based on the existing situation, it is appropriate that about 80% of the state forest operations are anticipated to be outsourced to private sector. This percentage could be even higher, as it is not rational to invest into those capacities from the CSSF's side - except for indispensable capacities needed for the interventions in case of catastrophic events and for controlling the wood prices and the forest operations costs. On the other hand, it is not favourable that the standing timber selling is limited by the Law, particularly at the beginning when this should be a dominant approach - before establishing the necessary CSSF's capacities.

It is favourable that the CSSF has to respect the public procurement rules in case of contracting forest operations (as its expenditures for them would be lower) and that it could also use the long-term contracts for the sale of wood (particularly in order to improve the support of the prospective local value chains).

A very good issue for the forests and the forest sector as a whole is also the establishing of the Forest fund which will be managed by the MAFF. The priorities, which the Fund has to respect, particularly the (large sum of) payments of compensations to actual forest owners for inability to manage their nationalised forests, could however seriously endanger the fulfilment of its other purposes at the very beginning because there will not be enough money for them.

Regarding the CSSF's seat, it is not usual and rational that it is out of the capital city, but such was the political decision within the Government. The anticipated number of 100 own forestry-technical employees is very rational, but could not be considered sufficient for the fulfilment of all the CSSF's forest management functions - if usual technical norms are considered (see also Ferlin and Golob, 2012). The number of own employees should be almost doubled, or a considerable part of its own activities should be outsourced.

Finally, it could be stated that assuring the continuity of the state forest utilisation, production and supply of wood through the newly established company is a great challenge in short-term. The reason is that the CSSF's business model does not include the forest management planning and the operational forest management functions (which remained with the SFS) or the existing capacities for forest utilisation and selling of wood assortments

(which remained with current concession holders). For establishing these capacities the new company would need a longer time. This time is currently not available, as the CSSF takes over the state forest management from the FALF and the concession holders already on 1st June, 2016. A very good thing for establishing of the CSSF's capacities is however the remarkable financial injection from the state budget, as well as a state guarantee for a remarkable amount of credit funds for the indispensable investments.

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FOREST SECTOR REFORM AND FOREST SERVICE IN ALBANIA

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Abstract

From the socialist period until the beginning of transition, Albania inherited damaged forests from unsustainable and inadequate management practices. This came as a result of low public awareness on forest protection. People often referred to forest land as common property with open access, where nobody controlled it and caused a great human pressure on them.

Taking into consideration this situation, the main challenge since the beginning of the transition period, was the preparation of a new legal framework. The aim was to increase the responsibility and involvement of local communities in natural resources' planning and management.

The Albanian Government referring to the new forest strategy and forest law, decided to recognize by law three ownership types; state, communal and private, as well as transferred over 40% of the forest area to the Local Government Unit (LGU). The political decision to transfer state forests and pastures to LGU, aimed at the decentralization of forest and pasture governance, conceding responsibilities to rural communities on forest and pasture management in order to fulfil better their needs, stopping further on the degradation of natural resources and starting their rehabilitation through friendly environmental interventions.

The realization of this transfer process took nearly 13 years, and nowadays the results in the communes with forestry property have been good. This led to the decentralization and improvement of natural resource management, increasing incomes, as well as strengthening LGU capacity building and rural communities. Also, illegal activities having negative impacts on land, forests, pastures, and fauna were minimized, and wrong management practices were eliminated as well.

The sustainable development of forests and pastures requires support for the orientation of development policies and at the same time the reformation of forestry service in conformity with the strategic objectives of this sector. In this analysis, a balanced realization of strategic objectives is required for the reformation and reorganization of the forestry service structure, and drawing deductions and making necessary recommendations as well.

The realization of strategic objectives is achieved by carrying out adequate, institutional reformations based on the legal modifications and socio-economic development of the country.

In order to have a functional forestry service, a sustainable organizational structure is needed aiming at not only the strategic objectives fulfilment but also functional duties.

Key words: reorganization, reform, strategy, forestry service, forest legislation.

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Introduction

Albania is located in the western part of the Balkan Peninsula, with a total land area of 28,748 square km. About 70% of the country is mountainous and difficult to access. The average altitude is 708 m, twice that of Europe as a whole. Albania's total land area is divided into three main ecological zones: the coastal plain zone, the hilly transition sub-mountainous zone and the mountainous zone. The annual precipitation varies considerably from about 800 mm/year in the hills to over 2,000 mm/year in the coastal plains and in the mountain regions. There is a dry period in the summer in the Mediterranean part of the country. In most parts of the country climatic and soil conditions are favourable for forest and pasture growth.

More than 60% of Albania's rural households own less than 0.8 ha of agriculture land. Agriculture is the leading sector of Albania's economy, however poverty occurs mainly in rural areas (rural population, 80% of the poor live in rural areas). Albania has had 65 municipalities and 316 Communes with over 2,800 villages. Each commune has had an average population of 6,500 people and on average 9 villages, where a portion of them (those in the hills and mountains) has forested areas. Nowadays, Albania has 61 municipalities according to the new territorial reform approved by the parliament (March, 2015)

The re-examination of the development strategy for the forest and pastures sector is conditioned by the difficult situation created after the 90's. This has been a period of over-harvesting, overgrazing and mismanagement of forestry and pasture resources due to political and socio-economic motives and reasons. The recent decisions of the Albanian government on functioning and strengthening of the public benefits from forests and pastures (April 2003), and on a temporary ban of commercial logging (November 2002), made it necessary to re-examine the development strategy for the forest and pasture sectors and to draw up a new strategy clearly distinct from a long transition period. In the ministerial declaration for the Review of the Strategy of Forestry and Pastures sector two main goals became apparent:

- Ensuring the restoration and further protection of the integrity of forest and pasture resources
- Increasing the contribution of forestry to poverty reduction in rural areas

Both two goals are important, but in Albania, poverty reduction is a national objective and most projects or programs include objectives to reduce the nation's poverty. The GDP per capita is US\$ 1.2 per day. Nearly two million people (58% of the total population) live in Albania's upland region, encompassing the hilly transition sub-mountainous and mountainous zones, which accounts for about 70% of the poor.

Forests and pastures in Albania

Albania is considered a country of abundant forests and pastures resources. All forests (public and private), the so-called Forest Fund of Albania, are grouped in 36 administrative units (or districts). The Forest Area of Albania (Forests, Shrubs, and Open Forests and/or Shrub land) is 1,498,957 ha (Albania National Forest Inventory 2004), divided as follows:

Table 1 Forest inventory data

No	Categories	Surface (ha)	%
<i>A</i>	<i>Total forest & forest land area</i>	<i>1,498,957</i>	
<i>1</i>	<i>High forests</i>	<i>294,957</i>	<i>19.68</i>
	<i>1a conifers</i>	<i>84,461</i>	
	<i>1b broadleaves</i>	<i>210,496</i>	
<i>2</i>	<i>Coppice</i>	<i>405,016</i>	<i>27.02</i>
<i>3</i>	<i>Shrubs</i>	<i>241,724</i>	<i>16.13</i>
<i>4</i>	<i>Open Forest</i>	<i>557,260</i>	<i>37.17</i>
<i>B</i>	<i>Pasture</i>	<i>480,777</i>	

Albania is home to approximately 415 wood material processing factories, which process an estimated 360, 000 m³ of timber wood material every year. The annual consumption of fuel-wood per rural households has been estimated at 4.3 m³ per year. Based on this, the documented level of consumption per rural household is 1.6 million m³ of fuel-wood every year. Albania is also well known for the quality of non-wood forest products, such as medicinal plants, ether oil plants, tannin plants, etc. More than 25,000 tons with a value of US\$ 35-40 million on average are being exported each year.

Over the last 60 years (communist and transition period) Albanian forestry has suffered significant changes. It has reduced its forest area with more than 300,000 ha and most forests have been depredated through over harvesting and over grazing. (Muharremaj, V: Forests & Pasture, 2003) Forests degradation and erosion are the main problems in natural resource management.



Photo1 Degraded area

The situation before and during 90s

During the former communist system, as part of the agrarian reform, all the forests and pasture areas were nationalized and became state owned. Many forest areas were misused or converted to agricultural land, cultivated pastures or fruit-tree plantations, even on steep slopes. As a consequence of these misuses, degradation and soil erosion followed. People often regarded forest land as common property with an open access, but controlled by no one. The results of this was over-cutting of the forests, often exceeding 2-3 times the Annual Allowable Cut. This continued even during the period of transition to a market economy. Due to huge harvested volumes of timber each year, over a period of 40 years the Albanian forests have had considerable changes in their structure and age classes.

In 1990s Albania went into the transition from a centralized system to free market economy system. Especially the first 10 years were very hard for the Albanian economy. During that time, the forestry sector suffered huge damages especially in high forests. There was a great human pressure on forest resources (fire wood and grazing) that caused huge forest degradation. Parallel to it, investment in forest management has dropped considerably since the mid 1980s.

So we can point out that before and during the 90s there were:

- Massive damages and degradation of forests.
- Unsustainable harvesting
- Reduction of biodiversity
- Destructive human interventions on forest environment.
- Low public awareness for the forest protection.
- Reduction of forest stock as a result of new opening lands (about 30% of forest area)
- Over-utilization of forest and pastures.
- Limited investments in carrying out silvicultural operations for afforestation and fire protection.
- Illegal logging during the last years.
- Over-grazing in forest closed to urban areas.

Taking into consideration the above mentioned situation the government has undertaken several reforms focusing more on the decentralization process and privatization of the economy. The preparation of the legal framework has been one of the main challenges since the beginning of the transition period. The main legal framework related to forestry and pasture sector developed from that period onwards includes:

So far we have:

- Developed a new forestry strategy;
- Improved legal framework;
- Re-organized forestry service.

In this context, through forestry strategy and law the Albanian Government has decided:

- ✓ To recognize by law three ownership types: state, communal and private;
- ✓ To transfer over 40% of the forest area to the Local Government Unit (LGU) (political decision – decentralization of the ownership).

In the strategy approved by the government with the Decision of the Council Of Ministers (DMC) No. 247, dated 23.04.2004 “*The strategy for the development of the forest and pasture sector in Albania*” many actions have been determined in connection with the reform in forests sector.

Institutional and legal reform of the Albanian Forest Service at national and local level

The new strategy emphasizes the importance of continuity of the institutional reform in order to establish more effective and adequate structures at all organization levels. Reforms and institutional strengthening are essential factors in guaranteeing the implementation of the strategy. We can be optimistic for the future only by improving and completing the legal framework, by reforming and establishing institutions capable of managing resources and able to ensure law enforcement. The main objectives in this direction are:

Separation of regulatory/controlling functions from managerial ones: The organization of the General Directorate of Forestry and Pastures (DGFP) as a forestry policy has not given till now its proper/expected results. Its reorganization into a forestry inspectorate in order to carry out forestry public service functions, including extension service functions and encouraging partnership with all stakeholders, would affect positively the improvement, protection and management of the forestry and pasture resources. The law enforcement functions of the Forest Police will be completely (after 2008) separated from the managerial functions of other structures of DGFP. Forest Police will have a similar status as that of the homologous police in other European countries.

Improvement of the existing organization structure of GDFFP, making it more effective and more flexible: The action plan for accomplishing this objective foresees the following steps:

- Establishment of the Regional Directorates of Forestry and Pastures as a structure which is already operational as pilot project basis.
- The establishment of the administrations of protected areas and their training.
- Establishment of communal forest administration. Establishment in each commune of a small technical-administrative unit that will deal with the administration and management of forests and pastures given in use, subordinated directly from commune, while the forestry service would have the right to control and technical support.
- Organization of the forest extension service structure, especially for communal and private forestry.

Another strategic line of the institutional and legal reform of the sector is the continuation and deepening of reformation and completion of the legal and regulatory framework of the sector in accordance with the dynamism and challenges of the transition period. Appropriate legislation for the sector implies a complete, harmonized and coherent manner accompanied with economic facilities are the main ways that guarantee success. Harmonization of the legislation on forests and pastures with the environment related legislation is the main objective of this strategic line. It will make the achievement of the other strategy objectives easier.

An important objective is the elaboration of a new Law on Forests as a synthesis of the changes resulting from the decentralization process of state forest ownership by emphasizing the supervising role of the forest public service over all ownership categories of forest and pastures. Other important legislation improvements require:

- Developing a legal draft framework which will regulate/resolve issues regarding the administration of forest and pasture areas transferred to local communities.
- Ensuring legislation support for the work of the extension service, by determining its status and assigning tasks and responsibilities to this service.
- Improvement of other legal acts relevant to the forest and pasture sector.

Development of Forestry Legislation in Transition Period

- Law No. 7623, dated 13.10.1992 “On forests and forest police” abrogated by the Law No 9385 of 4.5.2005 on “Forest and Forest Service”
- Law No. 7722, dated 15.6.1993 “On protection of natural medicinal, ether-oil and tannin plants”
- Law No. 7875, dated 23.11.1994 “On protection of wildlife and hunting”
- Law No. 7917, dated 13.4.1995 “On pastures and meadows” abrogated by the new Law on Pasture and Meadows
- Law No. 7699, dated 21.04.1993 “On compensation in value or in land for construction of ex-owners of agricultural land, pastures, meadows, forest lands and forests”.
- Law No 8302, dated 12.3.1998 “On administration of income generated from forests and pastures under state ownership”.
- Law No. 8318, dated 01.04.1998 “On Lease of agricultural and forestry lands”
- Law No. 8312, dated 26.3.1998 “On undistributed agricultural land”
- Law No 8743 of 22.01.2001”On State Immovable Properties”
- Law No 8744 of 22.01.2001 "On the transfer of the state immovable properties to local government units (LGU)", etc.
- Law No 9385 of 4.5.2005 “On Forest and Forest Service”
- Law No 9791 of 23.7.2007 on “Some additions and changes to the Law No 9385 of 4.5.2005 “On Forest and Forest Service”, changed” defines the communal forest as follows:
- Law No.9693, date 19.3.2007, “On the pasture fund”
- Law No. 9533, date 15.5.2006 on “Some additions and changes to the Law No 9385 of 4.5.2005 “On Forest and Forest Service”
- [Law No. 15/2012, on “Some additions and changes to the Law No 9385 of 4.5.2005 “On Forest and Forest Service”](#)
- [Law No. 36/2013, on “Some additions and changes to the Law No 9385 of 4.5.2005 “On Forest and Forest Service”](#)
- [Law No. 38/2013 on “Some additions and changes to the Law No 9693, date 19.03.2007 “On the pasture fund”](#)
- [Law No. 8906, date 06.06.2002 "On Protected Areas"](#)
- [Law No.9587, date 20.07.2006 "On Biodiversity Protection"](#)
- [Law No. 68/2014 on “Some additions and changes to the Law No. 9587, date 20.07.2006 "On Biodiversity Protection"](#)
- VKM Nr.46 date 29.01.2014 “Për krijimin dhe mënyrën e organizimit e të funksionimit të Inspektoratit Shtetëror të Mjedisit, Pyjeve dhe Ujërave” DMC. No. 46, date 29.01.2014 “On establishing and the way of organizing and functioning of Environment, Forests and Water State Inspectorate”
- DMC. No. 102, date 4.2.2015 “ On establishing and the way of organizing and functioning of National Agency of Protected Areas and Regional Administrations of Protected Areas”

The transfer process of forests and pastures.

The transfer of state forests and pastures to Local Government Units (LGU), being a political decision, has its own objectives.

Thus the main objectives of Communal Forest and Pastures Transfer to Communes are:

- To stop further degradation of natural resources and to start their rehabilitation through friendly environment interventions;
- Change the attitudes of local communities and foresters toward sustainable management of communal forests and pastures;
- Decentralization of forest and pasture governance and participation of communities for the restoration of degraded forest and pastures and their sustainable management;
- Conceding responsibilities to rural communities on communal and pasture management for the better fulfilment of their needs and for income generation;
- Improvement of policies and instruments for the participatory management of communal forest and pastures.

The transfer process of forests and pastures to Local Government Units (LGU) has nearly been accomplished, based on Decision of the Council of Ministers (DCM), about 6,232,256 ha forests and 140,000 ha pastures have been transferred to LGU. These forests and pastures areas have already been given together with their management plans.

The preparation for the management plans and administrative procedures have been carried out and at the same time the Project of Development of Natural Resources has supported this preparation.

The transfer process was not easy because it needed 13 years to be realized. During the transfer process it became noticeable that this transfer of the State Forest to Local Government Unit led to:

- decentralization of natural resource management;
- enhance productivity and incomes derived from sustainable resource management;
- reduce soil degradation;
- improve water management;
- conservation of biodiversity;
- strengthening public sector management of these resources;
- capacity building and strengthening of LGU and rural communities.

Thus, we can say that natural resources such as: agricultural land; forests and forest land; pastures and meadows; water (surface and ground); biodiversity (flora and fauna); landscape and human capital have been used in a more *sustainable way* compared with the period of pre-transfer because there have been minimized:

- erosion and pollution of agricultural land
- illegal logging
- fires
- overgrazing
- over-utilization of non-wood forest products
- illegal hunting (poaching)
- soil, forest, pasture and biodiversity degradation
- wrong management practices

Taking into consideration all the above achievements, we can say that “**Albanian Communal Forestry is a good mechanism for forest sustainable management**”.

But, after a new territorial reform approved by the parliament (March 2015) there will be a new division of forests and pastures areas in 61 municipalities, including not only the communal forests and pastures area, but also the state high forests, except protected areas. Thus, all this work that has been done up to now for the transfer process of forests and pastures to Local Government Units is lost, and it is necessary to re-start again from the beginning. Based on a new draft law on “Administration of the National Forests and Pastures in Albania” (Dec. 2015), the forestry service will be a part of municipality administration.

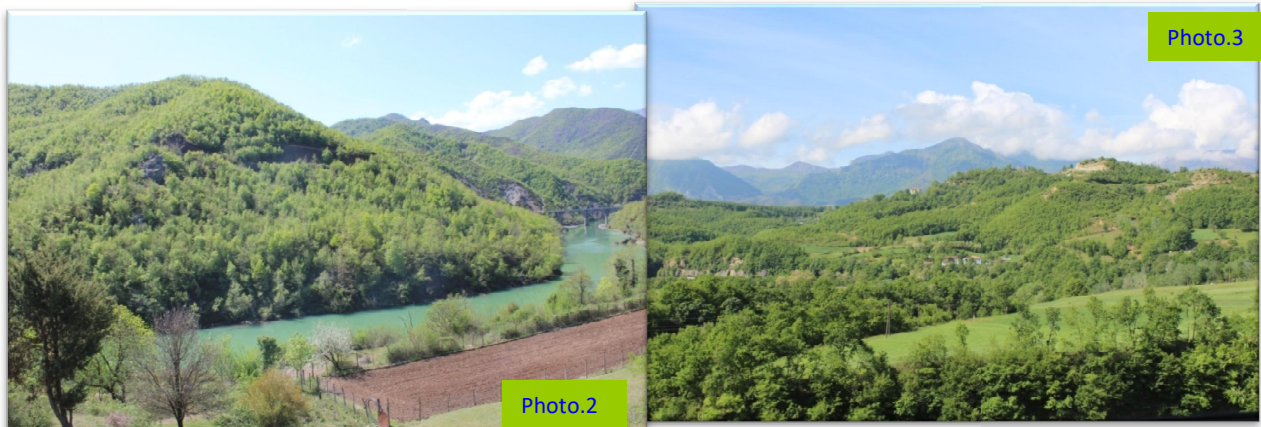


Photo 2, 3 - Forest stand and territory well managed in the Municipality of Mati

Forestry versus nature protection as an important issue of the new strategy

One of the main objectives of the strategy is the effective management of the existing protected areas (PAs) and the preparation of conditions for their gradual extension according to the suggestions of the Biodiversity Strategy and the Action Plan for the establishment of ECONET. The first action will be the approval of the respective network of protected areas which now covers approximately 17% of the Albanian territory. This will be followed by the preparation of a project - plan, including budget scenarios for the effective management and development of the protected areas system, and the identification of the areas of higher

priorities and criteria for their classification by importance in order to focus attention on their situation as well as define next steps and deadlines for implementation. The second step is the establishment of bio-corridors in order to connect the PAs among them. Such a process would demand that by 2020 the PA-s network will have covered about 20% of the Albanian territory.

The action plan for implementing these objectives foresees the following steps:

- Preparation and implementation of management plans for the most important protected areas (e.g. the main national parks);
- Assessment of the impacts of management plan implementation;
- Reassessment / re-evaluation of the enter permit and fee system for national parks;
- Implementing a vast program on protection and improvement of biological and scenery/landscape diversity, assigning the local government responsibilities;
- Development of a national plan for the establishment of ecological network, bio-centres, bio-corridors, and rehabilitation areas and buffer zones.

The establishment of protected areas administration and staff training is another important objective. The action plan for this objective foresees the following important activities:

- Preparing and implementing a national program on public awareness of the benefits and importance of the protected areas, particularly in the districts where protected areas exist;
- Planning and implementing in continuity specialized training courses for the staff involved;
- Efforts to resolve ownership conflicts regarding protected areas on a case-to-case basis with the involvement of local authorities/communities and stakeholders;
- Enlisting the support of those NGO interested in protected areas and defining appropriate working relations with them with regard to raising public awareness and promoting environmental education.

Issues still to be addressed

- The legal organization of forestry service is still not clear.
- Lack of clear and proper policies for land tenure and forest and pasture management.
- The current law is not focused on the main forestry issues such as ownership and use rights, decentralization and delegation of competencies.
- Lack of know-how and technology transfer.
- Lack of professionals on forests governance is the most important issues.

Recommendations

- To complete the legal framework for the forests and pasture lands to the ownership of LGUs and for their sustainable management by local communities;
- To prepare policies that stimulate income generation from forests and pastures, and proper ways of using incomes to the benefit of local communities;
- Decentralization of the decision-making for forestry tariffs at the local government level;

- Establishing an effective extension service for community forests and pastures.
- Employment of foresters in forest and pasture sector because forestry is a specific activity and requires professionalism for a better management.
- Establishment of a forest service structure.
- Improving policies related to the energy sources in Albania in order to reduce the pressure on forest fund in the country.

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10. Analysis of Institutional and Legal Reform of Albanian Forest Service at national and local level		
<i>Strategic lines</i>	<i>Objectives</i>	<i>Comments</i>
Continuing of institutional reform in order to establish more effective and adequate structures in center and base.	Strengthening of state and responsible institutions of forestry service.	*The strengthening of the state-responsible institutions is not realized. In our opinion, it is necessary to reorganize, strengthen and give more authority to forestry service as well as increase the cooperation with other institutions.
	Separation of regulatory functions from managerial ones in forests and pastures. Increasing the effectivity of forestry police service. Improvement of the forestry administration structure.	*The control structure (forest policy) is totally separated from the structures with managerial function by DCM. No.46 date 29.01.2014 “On establishing and the way of organizing and functioning of Environment, Forests and Water State Inspectorate” *The control and managerial structures are under the same institution (Ministry of Environment), It would be better that the managerial structures to be under the Ministry of Agriculture because in this way these structures would carry out their functions well. *The presence of forest fires and other illegal activities are facts that require improvement of the forestry administration structure.
	Establishment of communal forestry administration.	*Communal forest administration still misses proper staff, since not all communes have employed forestry and extension specialists. *The qualification of specialists in the forestry field needs also improvement through training, etc. *Forest specialists who will work in municipal forestry should be trained especially in management and extension. *Also, it should be improved the sharing of responsibilities, rights and duties for employees of municipal forestry.
	Establishment of FRD (Forest Regional Directorates)	*Regional Forest Directorates have been established, but they do not work well. There should be clarified by law the rights, duties and responsibilities in relation to the governance of the region's forest territory. *The same thing should also be said for municipal directorates.
	Establishment of the protected areas administration and their training, giving priority to the national parks and to the protected landscape areas	*The administration of PA was under the directory of forestry service, now it is a completely separated organization, establishing by DMC. No. 102, date 4.2.2015 “ On establishing and the way of organizing and functioning of National Agency of Protected Areas and Regional Administrations of Protected Areas” *The agency staff has lack of professionalism, especially from forestry field. *The staff which deal with the PA management needs continues training.
Further continuity and deepening of reformation and completion of legal and regulatory framework in accordance with the dynamism and challenges of free market – economy	Drafting of a new law on forests	*Forest law notions of market economy has been drafted in 1992 that was a good law. *Subsequent changes of ownership and management concepts demanded the drafting of a new law on forests and forest service, which was done drafted and adopted in 2005. This law is still in force with the improvements made in 2007, 2012 and 2013. *Drafting of new laws and their improvement work is continuing and no problem forest administration. *The problem of Albanian forest administration is correct implementation of the law, which relates primarily to the political will.

RURAL DEVELOPMENT AND FORESTS IN TURKEY

HASAN EMRE ÜNAL¹, ÜSTÜNER BİRBEN²

Abstract

Rural development policy helps the rural areas of Turkey to meet the wide range of economic, environmental and social challenges. Promoting rural development poses also governance challenges because it requires coordination across sectors, across levels of government, and between public and private actors. At that point, forestry and forest-related activities have crucial roles in sustainable development in rural areas of Turkey.

In this study, therefore, general information about forests, rural population, and forest villages in Turkey is given on the basis of the basic statistics. Then, the concept of rural development will be examined considering the rural conditions in the context of contributions of forest to rural people in Turkey. In the last section of the study, mainly based on official reports and statistics, the legal and administrative status is mentioned.

Keywords: Turkey, forest, forest villages, rural development

Introduction

The world's population has increased from 1970s onwards to approximately 7 billion people and is envisaged to increase over the coming decades. In total population, the agricultural population where people depend on economic activities such as agriculture, forestry, fishing and hunting for their livelihoods involves all people economically in agriculture and non-working dependents (FAO, 2013).

It is obvious that both rural development and forest have suffered a change over recent decades. In developing countries, the difficulties associated with globalization in place bring new options and also threats in addition to rural development. Forests take position of about one third of global land cover. Forests are home to indigenous people and forest farmers but they also supply services and goods to contribute to socio-economic development (Pretzsch J. Et al, 2014). Forests offer some advantages for rural population. For instance, production and marketing of forest products have importance for rural employment and income (Poschen P. Et al., 2014). The world's total forest area is estimated to more than 4 billion ha. This area corresponds to about 30 percent of total land area or an average of 0.6 ha per capita of human population (FAO, 2013).

Forestry and forest-related activities provide income which includes the wages, profits and timber revenue earned not only in formal sector but also income earned in informal activities such as the production of fuel-wood and non-wood forest products (NWFPs). This income is distributed among various units such as forest owners, employees, shareholders and other people that are [associated with](#) income (FAO, 2014). Although informal employment is not included in national statistics, SOFO 2014 shows that it is more important in less developed regions. Approximately 840 million people or 12 percent of world population collect fuel-wood and charcoal for their own consumption. The first global estimate about the number of forest-dependent people was produced by The World Commission on Forests and

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Sustainable Development (WCFSD). According to WCFSD, 350 million people depend on forest for their subsistence. Also one billion people depend on woodlands and trees due to their necessity of fuel-wood, food and fodder. It is just under 20 percent of the global population. (FAO, 2014).

As of 2015, forests cover 28.6 percent of total surface and 22.3 million ha in Turkey. Distribution of forests is classified by the basic functions as follows: Economic function is 11.2 million ha (50 percent), ecologic function is 9.2 million ha (42 percent) and socio-cultural function is 1.8 million ha (8 percent) (OGM, 2015). Forestlands cover about one fourth of total land area in Turkey. Also 99 percent of forests are state-owned (UNDP, 2002). Forest has a significant role for people who depend on forest for their subsistence as such in around the world.

7.1 million people (corresponding to about 10 percent of total human population in Turkey) live in the total of 21, 723 forest village that are located in or nearby forests (OGM, 2014a). This population is economically the worst group in Turkish economy. Therefore, forest and forestry has a vital role for their life and livelihood.

Rural Turkey

Rural development as a concept indicates the holistic development of the rural areas by improving the quality of life of the rural population. The concept as it is, is extensive and multidimensional (Özensel, 2015). There are three objectives for rural development: to enhance food security; to alleviate poverty; to encourage the sustainable management of natural resources (Whiteman, 2000).

When we say the rural development, in general issues such as structure, problems, production, marketing and organization of agriculture and husbandry come to mind (Geray, 2011). But also rural development is relevant to the contribution of forests to the livelihoods for rural communities (Pretzsch J. et al., 2014). Both forestry and agricultural development compete for usage of the same areas. Because the areas with agricultural development, which means expansion of areas under crop and land use, are covered with natural forest (Whiteman, 2000).

In Turkey, 35 percent of total population still lives in rural areas. However, in the United Nations in Turkey there is no definition for rural area. There are various definitions and criterions in different laws, census, surveys about population, development plans. Some definitions for rural areas are mentioned below (Günaydın, 2010):

- Settlements with population 2,000 are qualified as villages, settlements with population 2,000 - 20,000 are qualified as towns and settlements with population more than 20,000 are qualified as cities (The Village Law No 442);
- Settlements with population less than 20,000 are identified as rural areas (Household Labour Force Statistics, National Rural Development Strategy, The 8th Country Development Program);
- Settlements with population less than 10, 000 are identified as rural areas (Demographic and Health Surveys 2003).

Table 1 shows Turkey's changing general and urban-rural population from 1927, which was the first census, to 2015.

Table 1 Changes in Rural and Urban Population in Turkey

Inventory Years	Total	Urban Population	Urban Population Rate	Rural Population	Rural Population Rate
1927	13,648,270	3,305,879	24	10,342,391	76
1935	16,158,018	3,802,642	24	12,355,376	76
1940	17,820,950	4,346,249	24	13,474,701	76
1950	20,947,188	5,244,337	25	15,702,851	75
1960	27,754,820	8,859,731	32	18,895,089	68
1970	35,605,176	13,691,101	38	21,914,075	62
1980	44,736,957	19,645,007	44	25,091,950	56
1990	56,473,035	33,326,351	59	23,146,684	41
2000	67,803,927	44,006,274	65	23,797,653	35
2012	75,627,384	58,448,431	77	17,178,953	23
2013	76,667,864	70,034,413	91	6,663,451³	9
2015	78,741,053	72,523,134	92	6,217,919	7,9

Source: Tarım ve Köy İşleri Bakanlığı, 2011; TÜİK, 2012a; TÜİK, 2012b; TÜİK, 2016. ADNKS, 2013.

In the 88 years' period, population has increased approximately 6 times. Referring to Turkey's rural population and urban population change in 1927, rural population that forms about 76 percent of the total population, showed decrease due to starting agricultural mechanization in 1950s. Rural population rate decreased to 75 percent in 1950 and 68 percent in 1960. In 1980-1990, rural population started to decrease for the first time in Turkey. Since 1960s, the rural population has been rising in spite of the continuing rate in the total population in the country. By 2015, the rate of the rural population in the total population decreased to 7.9 percent.

In rural areas, people depend on primary economic activities such as agriculture, husbandry, fishery, forest labour, and small-scale industry and services. The main factors which cause rural unemployment are landless and unqualified employees (Aktan and Vural, 2002). In the countryside, [non-agricultural unemployment](#) rate increased by 2000. Employment in agriculture sector has been decreasing since 2000 and it has been a cause for the decreasing unemployment in countryside. Despite decreasing employment in agriculture sector, agriculture is still a primary economic activity in countryside (Tarım ve Köy İşleri Bakanlığı, 2011). Changes in agricultural employment between the years 1988-2013 are shown in Table 2 below.

³[In 2012, Law for Metropolitan Municipalities No. 6360](#) was introduced. Under this law, 14 metropolitan municipalities were established and in 30 cities which have a metropolitan status. Towns and villages joined district municipalities.

Table 2 Changes in Agricultural Employment between 1988 and 2013

Years	Non-institutional population (000)	Turkey (x1000)		Urban (x1000)		Rural (x1000)	
		Total Employment	Employment in Agriculture	Total Employment	Employment in Agriculture	Total Employment	Employment in Agriculture
1988	53,284	18,907	9,328	7,256	455	11,651	8,873
1990	55,580	19,947	9,355	8,295	420	11,653	8,935
1994	58,764	19,404	8,058	9,168	466	10,236	7,592
1998	62,465	21,393	8,777	10,508	454	10,885	8,323
2002	68,800	21,354	7,457	11,111	484	10,243	6,973
2006	68,066	20,423	4,907	13,518	630	6,905	4,277
2010	71,343	22,594	5,683	14,679	701	7,915	4,981
2013	74,793	25,443	6,015	16,772	724	8,671	5,291
Change (%)	40	35	-36	131	59	-26	-40

Source: TÜİK, 1988-2009; TÜİK, 2011; TÜİK, 2013.

As it is seen in the Table 2; there is even - if just a smidgen - agricultural employment in Turkey's cities too. Considering the period of 1988-2013, it is obvious that agricultural employment in cities increased about 59 percent. In return, from 1988 to 2013 agricultural employment in rural has decreased by 40 percent. In 1988-2013, Turkey saw an increase in total employment by 35 percent and a decrease in agricultural employment by 36 percent.

Turkey's Forests

Turkey has a total land area of approximately 78 million hectares, about one quarter of which is designated as forest and covers 28.6 percent of the total surface. Percentage of forestland in total country surface is shown in Table 3 below (OGM, 2015).

Table 3 Percentage of Forestland in Total Country Surface

Land Use	Area (ha)	Percent (%)
Forest	22,342,935	28.6
Other (*)	55,661,709	71.4
Total Area	78,004,644	100

Source: OGM, 2015

*other land usage includes areas such as un-wooded forest soil, tableland, steppe, rocky-stony terrain, marsh, agriculture location, graveyard, mine, forage, wetland, authorised facility and so on.

In Turkey, about 56 percent of the total forest area is productive and the other remaining 44 percent is unproductive forest. As regards productive forests, about 12 million hectares are classified as productive high forests and 785 thousand hectares consist of coppice forests (OGM, 2015). Table 4 shows the Turkey's forest area by quality and management.

Table 4 Turkey's Forest Area by Quality and Management

Quality	High Forests	Coppice Forests	Total Forest
Productive	11,919,061	785,087	12,704,148
Unproductive	7,700,657	1,938,130	9,638,787
Total	19,619,718	2,723,217	22,342,935

Source: OGM, 2015

In Turkey, 99 percent of forests are state-owned and managed by the General Directorate of Forestry (OGM). State forests' management goals as part of national forestry program, and are identified by considering forests' economic, ecological, social-cultural functions and participation and ecosystem-based functional planning by General Directorate of Forestry. Forests' distribution by basic functions is shown in Table 5 below (OGM, 2014b).

Table 5 Distribution of Forests by Basic Functions (2012 and 2015)

Basic Functions	Productive (ha)		Degraded (ha)		Total (ha)		%	
	2012	2015	2012	2015	2012	2015	2012	2015
Economic	7,941,865	7,411,790	5,679,694	3,831,304	13,621,559	11,243,094	63	50
Ecological	2,911,614	4,192,532	4,000,810	5,095,315	6,912,424	9,287,847	32	42
Socio-cultural	705,189	1,099,826	438,962	712,168	1,144,151	1,811,994	5	8
Total	11,558,668	12,704,148	10,119,466	9,638,787	21,678,134	22,342,935	100	100

Source: OGM, 2014b; OGM, 2015.

Forest Communities

Most of the forest villages are situated in rough areas. Due to the height, they are in a harsh climate. These villages are not proper by their location and they have dispersed and sparse settlement. Their economic structure is based on husbandry in general. On a large scale they have subsistence economy. There are some inconveniences in relation to markets and cities. Therefore, changes in forest villages are slow and inefficient according to changes in the general population (Geray, 1974). Forests enable some potential such as enhancing soil fertility, increasing crop and livestock yields, protecting soil and water resources for sustainable agriculture and economic growth of rural areas. Worldwide, selling forest products is an important source of income for many rural households (Kudat et al., 1999).

People who live in or around the forests are the poorest group in terms of socio-economic structure and per capita income. Due to settlement on highly inclined and humble terrain, they have limited livelihood activities. Economy in forest villages is mainly based on activities such as agricultural activities with conventional technique, ranching on grass and forage in forest, labour in forest and other gains which are obtained from forest services (Gülçubuk, 2005).

There are 21.723 forest villages with a population of over 7.1 million people which correspond to nearly half of the Turkey's rural population (by the year of 2012) or to about 10 percent of the total human population (OGM, 2014a).

Table 6 The Number of Forest Villages and Population

Years	Number of Forest Villages	Population (x1000)
1960	13,252	6,658
1970	15,923	7,954
1980	17,568	10,161
1990	17,940	9,117
2002	20,292	7,679
2010	21,278	7,073
2013	21,556	7,584
2014	21,723	7,157

Source: Çağlar, 2002; Solmaz, 2007, Çevre ve Orman Bakanlığı, 2009, OGM, 2012; 2014a

Statistics shows that number of forest villages has been increasing by periods of decennium, from 13,252 in 1960 to 2014's number of 21,723. In return, forest villagers' population vary from 1960 to 2014.

The reasons for increasing forest village number while forest village population is decreasing are below:

- In some forest villages which harbour more than one neighbourhood, some neighbourhoods have obtained village footing;
- Registration of forest villagers that have not been registered before;
- Afforestation activities and designating villages as forest villages in boundaries where forests were established.

Relations between forests and villages have not been positive despite some opportunities by Forest Law such as the kind of using and purchasing with low costs. Therewith, the General Directorate of Forest and Rural Relations (ORKOY) was established in 1970 with the aim of changing approach of forest villagers to forests and minimizing controversy between forest agency and forest villagers. ORKOY not only carries out works and services about forest villages, but also the purpose of protection, developing and expanding of forests. ORKOY has some tools for achieving goals such as individual credit for agriculture, credits for plans and projections oriented at the ORKOY's goals as protection, developing and expanding of forests, husbandry, various handicraft implementations and credits by cooperatives (TBMM, 2003). At present, the General Directorate of Forestry Department of Forest-Village Relations provides grant and credit support to forest villagers in 21, 723 forest villages around the country in order to stand by their social and economic development (OGM, 2014c). Table 7 shows individual credits for forest villagers in 1974-2014 periods.

Table 7 Individual Credits in 1974-2014

Year	Unit Number	Value⁴ (TL)	Year	Unit Number	Value (TL)
1974	1552	3,563,839	1994	7466	31,266,960
1975	25856	55,272,540	1995	3824	32,632,938
1976	24828	82,155,660	1996	2144	26,574,405
1977	20205	87,183,913	1997	1812	11,936,429
1978	22171	125,575,473	1998	575	9,530,305
1979	9029	84,265,745	1999	1584	26,565,382
1980	8478	43,399,187	2000	2307	30,576,948
1981	8495	51,997,879	2001	1408	17,667,003
1982	9114	48,049,384	2002	2066	25,916,256
1983	12813	47,144,119	2003	2537	42,210,746
1984	12181	64,961,617	2004	3707	62,719,103
1985	13417	71,740,647	2005	5331	76,417,116
1986	9805	73,956,898	2006	9316	72,155,959
1987	13947	89,219,941	2007	17762	59,869,958
1988	9570	57,811,602	2008	23040	56,196,710
1989	9122	57,957,453	2009	22680	56,501,790
1990	7716	52,059,596	2010	27205	67,351,549
1991	6897	38,486,413	2011	21665	74,318,837
1992	9245	33,147,279	2012	17882	68,355,853
1993	13541	108,718,033	2013	21081	139,783,322
			2014	12538	109,256,782

Source: OGM, 2014a

⁴ According to prices of the year 2014 deflator factor. Credits based on fund resources include credits of social aimed credits (roof covering, heating-cooking) and economic-aimed credits (beekeeping, breeding cows and sheep-dairy farming, carpet and rug, facility acquisition). In 1993, 1994 and 1995 funds were provided to forest villagers outside of forest village fund.

Results

Forests provide source of income and employment for many families which live in or nearby forests. For instance, employment in harvesting, transport, processing, nurseries and reforestation. Thus, 7.1 million people who depend on forests and forestry for their livelihood earn significant portion of their earnings to buy food and other basic necessities. Growing valuable species in terms of economy such as poplars and other fast-growing trees on and around the farmlands and some small-scale activities as beekeeping, mushroom cultivation, and dairy produce enable for additional incomes (Muthoo, 2001).

Forest products cannot provide all economic requirements to forest villagers for their livelihoods. Only 10 percent of forest village households are able to yield enough income from forest-related sectors. Forest communities which are dependent on forest resources have no access to suitable land for cultivation. Thus they can reduce poverty by using forests more efficiently but, as a matter of fact, reducing poverty with exploitation of forest resources is not an exact solution. It can only work with expansion of agriculture and livestock raising activities (Kudat et al., 1999).

Although income and employment in rural areas for forestry is small-scaled considering other sectors such as agriculture in most developing countries, wide varieties of social and environmental elements are considered forests, which is significantly important for rural communities. The governments also provide funds which can be used for rural development by generating revenues from forest resources (Whiteman, 2000).

Development policies contain arguments about relationship between poverty, agriculture and environment. These debates are defined as concepts of agriculture-environment, poverty-agriculture and poverty-environment interactions. The agriculture-environment relation indicates applications of agricultural methods to increase productivity and usage of some inputs such as chemical agents and fertilizers. The poverty-agriculture interaction is related with issues such as rural poor, agricultural production. The third concept of poverty-environment interaction is about sustainable production in agriculture but also about a decreasing pressure of production on environment (UNDP, 2002). The primary aim of human development and sustainable forest management is the reduction of poverty. As it has been mentioned, forest communities are the poorest of the poor. Therefore, poverty focused development programs should focus on forest communities and search to increase their income opportunities (Muthoo, 2001).

According to the General Directorate of Forestry (2014c), helping forest villagers, the poorest community for 44 years, the Department of Forest-Village Relations has made an important progress in recent years in services to forest villagers by increasing credit support by 10 times, grant-implementation and studies on reducing red tape. Or-Köy, which creates employment with the revenue generating projects such as plant and animal production, ecotourism and handicrafts being implemented in rural areas with the development-in-place principle, also contributed to the repression of rural-urban migration. Carrying on its work all around the country, the General Directorate of Forestry started to give economic and social-purpose credits and grants to nearly 25, 000 families by increasing the amount every year. GDF put ORKÖY Information System into practice in order to curtail the period of planning, determination and credit facility which takes 4-5 months and to ease villagers' burden and repayment. The information system enables workers to save time and reduce their workload by providing the whole credit process including the repayment tracking to be conducted on computer.

By the same token, the most important issue to be considered in this regard is the relevant provisions of the Turkish Constitution of 1982. Provisions of the Constitution with its

169th and 170th article⁵ establish a direct relationship between the protection and development of forests and forest villagers. According to the related articles, measures shall be introduced to secure cooperation between the State and the inhabitants of villages located in or near forests in the supervision and exploitation of forests for the purpose of ensuring conservation of forests and their integrity, and improving the living conditions of these inhabitants; also the exploitation of areas which technically and scientifically ceased to be forests before December 31, 1981; the identification of areas whose preservation as forest is considered scientifically and technically useless, their exclusion from forest boundaries and their improvement by the State for the purpose of settling all or some of the inhabitants of forest villages in them, and their allocation to these villages. The State shall take measures to facilitate the acquisition of equipment and other inputs for these inhabitants. The land owned by villagers resettled outside a forest shall immediately be reforested as a State forest.

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IMPLEMENTATION OF THE EUROPEAN UNION TIMBER REGULATION 995/2010 IN THE CZECH REPUBLIC (EUTR)

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Abstract

In some countries, those in tropic areas in particular, illegal harvesting of timber significantly contributes to the sprawl of deserts and soil erosion, affecting also climate changes (increased danger of extreme weather conditions and floods). Due to these reasons, the illegal timber harvesting may have social, political and economic impacts. The paper discusses the method of applying the below listed EU regulations in the Czech Republic:

- Regulation of the European Parliament and of the Council (EU) No 995/2010 of 20 October 2010, laying down the obligations of operators who place timber and timber products on the market
- Commission Delegated Regulation (EU) No 363/2012 of 23 February 2012 on the procedural rules for the recognition and withdrawal of recognition of monitoring organisations as provided for in Regulation of the European Parliament and of the Council (EU) No 995/2010, laying down the obligations of operators who place timber and timber products on the market
- Commission Implementing Regulation (EU) No 607/2012 of 6 July 2012 on the detailed rules concerning the due diligence system and the frequency and nature of the checks on monitoring organisations as provided for in Regulation of the European Parliament and of the Council (EU) No 995/2010, laying down the obligations of operators who place timber and timber products on the market

The Czech Republic has applied the new EU regulations by adopting a special Act No 226/2013 Coll. on placing timber and timber products on the market, and a Decree No 285/2013 Coll., issued by the Ministry of Agriculture, on the scope and method of data transmission into the central repository by operators and state authorities in the field of placing timber and timber products on the market.

Keywords: forest policy, EU Regulation No 995/2010, EU common market, Act No 226/2013 Coll.

Introduction, scope and main objectives

Current legal state: An analysis made to the adjustment of Czech Republic's legal order to Regulation of the European Parliament and of the Council No 995/2010 on placing timber and timber products on the market showed that the required objectives would be preferably achieved by introducing a new law. This opinion is supported by the fact that the Forest Law only regulates forestry and does not include the related timber and timber products trading, which dominates in Regulation No 995/2010. The scope of the Forest Law ends with raw timber assortments and does not deal with their subsequent handling. Another merit of the new separate enactment is its lucidity and greater explicitness both for operators

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who place timber and timber products on the market and for the determination of authorities applying the Regulation No 995/2010.

European Union

Evaluation of the directly applicable legal directive issued by the European Commission (SEC (2008) 2615, Document of the Council No 14482/08 ADD 2) indicates that total loss of governments on revenues to their state budgets, which could otherwise be used for example to enhance health and social care or education is estimated at € 10-15 billion.

According to this evaluation, the global annual production of raw timber in 2005 amounted to 1,709 mil. m³. The share of the European Union in this amount was 370 mil. m³ (22%). Approximately 615 mil. m³ (36%) originated from countries with a medium to high risk of illegal timber harvesting. Among the highest risk areas in terms of illegal timber harvesting are Africa (except South African Republic) and Asia (except Japan), where the share of illegal timber in total production is estimated at up to 30%. These two areas are followed by Russia, by other post-Soviet states, by the Balkans (17%) and by Latin America (15%).

It can be deduced that approx. 136 mil. m³ of illegal raw timber per year is produced in risk countries. The amount of timber placed on the EU market in 2005 was about 512 mil. m³ (equivalent of raw timber), of which 142 mil. m³ were imports and 370 mil. m³ EU production. The amount of 16 mil. m³ of illegal timber products (without paper and pulp) estimated by the European Commission represents 3% of total amount placed on the EU market.

Czech Republic

Legality of domestic timber production in the Czech Republic is given by the application of Act No 289/1995 Coll., on forests and on the amendment and supplementation of certain acts (Forest Law), and in the case of woody plants growing outside the forest by the application of Act No 114/1992 Coll., on nature conservation and landscape protection. In the last ten years, no serious problems were recorded with illegal timber harvesting, which has been long well below 1% of total annual felling volume. In 2011, the amount of timber harvested in forests of the Czech Republic was approx. 15.4 mil. m³. Wood processing and paper industry is based primarily on using the domestic raw material.

Methodology / Approach

Target state: Regulation No 995/2010 deals with the issue, which is serious and closely related to forest protection against illegal timber harvesting. Illegal logging is a persisting and considerable problem particularly from a global perspective. It represents a threat for global forests since it increases deforestation and forest degradation, CO₂ emissions (according to results of studies globally by up to 20%), threatens biological diversity as well as sustainable management and development of forests, and interferes with the activities of operators who run their businesses in accordance with the valid laws.

It should be emphasized that both the forest area and the timber supply in the European Union are continually increasing thanks to the consistent application of the principle of sustainable forest management. Similarly as in other member countries of the European Union, the situation in the field of illegal timber harvesting represents only a negligible risk in the Czech Republic in connection with forest protection and damage to the environment.

On the other hand, it is important that efforts of EU member countries with high imports of timber and timber products from countries outside the European Union, mainly from the tropic areas, which are most concerned about the above-described global problem of deforestation and illegal harvesting of timber, are supported.

Results

The adoption of Regulation No 995/2010 created an additional important legal instrument to combat illegally harvested timber and products from such timber in trading. Key roles in this regulation play obligations stipulated for operators, relevant control mechanisms and stringent sanctions for the violation of the relevant clauses of the regulation.

Based on systematic approach, the operators who place timber and timber products on the internal market should take appropriate steps to ensure that illegally harvested timber and products thereof are not placed on the internal market irrespective of whether the domestic production or the timber harvested outside the European Union is concerned.

For this purpose, Regulation No 995/2010 instructs the operators to establish a system of due diligence and its regular evaluation. The operators are obliged to perform due diligence through a system of measures and procedures so that the risk of illegally harvested timber and products from such timber being placed on the internal market is reduced to minimum.

The system of due diligence includes three elements on which the risk management is based:

- access to information
- risk assessment
- mitigation of identified risk.

The above obligations apply to operators (economic entities). Operator (economic entity) is anybody who places for the first time timber or timber products onto the EU internal market for a purpose of distribution or use in the course of commercial activity. Thus, the due diligence system provides access to information about the sources and suppliers of timber and about timber products placed for the first time onto the internal market, including relevant information such as compliance with legal regulations of the country of harvested timber origin, description and amount of products, country of origin or its region and timber harvesting licence. Based on these data, the operators perform risk assessment. If a risk is

identified, the operators should mitigate it by adequate steps in order to prevent the placement of illegally harvested timber and products thereof onto the internal market.

Control mechanisms in Regulation No 995/2010 are particularly intended to control the due diligence system. However, they will also make it possible, if necessary, to trace illegally harvested timber even when already on the market and merchandized (see Article 5 of Regulation No 995/2010 on the obligation of traceability in traders).

Entities affected by the Act No 226/2013 are listed below:

- Ministry of Agriculture,
- Regional authorities,
- Czech Trade Inspection Authority (CTIA),
- Customs Administration of the Czech Republic,
- Authorized person (Government Department established by the Ministry of Agriculture to ensure activities following out from Regulation No 995/2010 and its implementing acts),
- Operator (all legal entities or natural persons placing timber or timber products on the market),
- Trader (all legal entities or natural persons who in the course of their business activities sell or buy on the internal market timber or timber products that have been already placed on the internal market),
- Monitoring organization (organization of legal personality residing within the European Union, which has corresponding technical knowledge and capacity allowing the performance of activities specified in Regulation No 995/2010).

Authorized person

Authorized person is a Government Department established by the Ministry of Agriculture pursuant to § 4 Section 1 of Act No 219/2000 Coll., on the property of the Czech Republic and its acting in legal relations, as amended, which ensures expert activities in adapting Regulation No 995/2010 and provides to operators technical advice and counselling according to requirements and information exchange. Regarding the fact that the authorized person will run the central repository of due diligence systems, it will have all prerequisites for the provision of expert consultations and information exchange at both national and international level. The authorized person will also supervise the monitoring organizations.

Discussion

Act No 226/2013 Coll. is primarily a technical regulation implementing the directly applicable directive of the European Union. In connection with the monitoring of the placement of illegally harvested timber and products thereof on the market by operators, no significant costs will be incurred by implementing this directly applicable EU directive and the draft law to adapt the Czech legal order to the mentioned regulation. Pursuant to Forest Law, the monitoring of whether the timber logging in the Czech Republic is legal is already currently in place before the timber placement onto the market and carried out by the

authorities of state forest administration and by other bodies (Ministry of Agriculture, Regional authorities, Municipal authorities, Czech Environmental Inspectorate).

The new Act No 226/2013 Coll. introduces the monitoring of operators who place timber and timber products on the market for the first time. The European Commission evaluated this solution as the most effective and bringing at the same time the lowest administrative burden to both supervisory bodies and operators on the market. State authorities to act in this area in addition to the Ministry of Agriculture will be regional authorities, Czech Trade Inspection Authority and Customs Administration of the Czech Republic. Since the use is expected of current capacities and existing systems, significantly higher costs should not be incurred.

The cost of the activities of these bodies should be minimal with taking into account that operators and relevant bodies need sufficient time to get prepared for the fulfilment of requirements stipulated by the regulation as mentioned in the introductory section of this directly applicable directive.

As for the business community, financial requirements for the business environment in the Czech Republic consist mainly in one-off costs for the introduction and evaluation of due diligence system according to Article 6 of Regulation 995/2010, possibly in costs for training responsible persons, and in the cost of required information provided. The requirement for the introduction of due diligence system by operators that affects increased administration for entrepreneurs follows out directly from Regulation No 995/2010.

In connection with the prevention of unnecessary administrative load on operators, the already in place systems or procedures, which comply with this regulation, will be used at maximum.

Operators who place domestic forest produce onto the market (mainly forest owners) currently gather a greater part of required data already by means of forest management planning and forest management records, harvesting timber in line with § 24, 25 and 33 of Forest Law.

In their case, the system of due diligence will be simple, also because of short consumer chain. Another advantage consists in using control tools of voluntary character, i.e. forest certification, e.g. PEFC, FSC. The forest area certified in the Czech Republic towards the end of year 2011 amounted to 72%. As for forest owners, the current registration of economic entities will have to be adapted to include all relevant data stipulated in Regulation No 995/2010 for the due diligence system.

Economic impacts for the business community connected with the introduction and evaluation of due diligence system, possible training of responsible persons of operators and provision of data will differ in dependence on the size of the entity (the larger entity, the

higher costs), complexity of timber product placed on the market (lowest in raw timber), and the country of timber origin (the highest costs in risk countries outside the European Union, the lowest costs in the domestic forest produce).

The number of operators who place domestic timber produce on the market (mostly forest owners) is estimated to be 7,300. This amount includes forest properties sized over 10 ha. It is presumed that in smaller properties sized up to 10 ha systematic business does not and cannot occur with respect to the amount of produced timber because the annual timber increment per 1 ha is approx. 6 m³. In 10 ha it is 60 m³, which represents about 2 trucks full of timber, used – as indicated by our findings – by forest owners themselves, mainly for their own needs. Thus, it is not the first placement of timber on the market in the sense of the regulation.

Useful for operators is the introduction of the due diligence system by means of control organizations, which are likely to arise based on the current certification systems (e.g. PEFC, FSC).

The sphere of operators who place imported timber products on the market has not been identified sufficiently yet. The situation is supposed to become clearer upon the implementation of the regulation and the draft law. Additional costs are expected to be incurred primarily in connection with requiring further information from the suppliers (namely documents on the compliance with the applicable legislation in the sense of the regulation).

There are approximately 70 prominent importers of timber products (of which 30 of raw timber) in the Czech Republic. The situation is more complicated in the import of timber and timber products mentioned in the Annex to the Regulation. In 2011, there were 4.2 mil. m³ of imported timber products monitored in volume units (namely raw timber and sawn timber) and about 1.6 mil. tons of imported timber products monitored in weight units (namely paper, pulp and furniture) in the Czech Republic. Of those, nearly 90% originated from other EU member countries, which were as a rule the place where the timber was first introduced onto the EU market. In terms of impacts of the regulation and the law, attention should be therefore focused on imports from countries outside the European Union, particularly from the risk areas defined by the European Commission (see Tab. 2 in the annex to the general part of preamble). Shares of illegal produce according to the European Commission for individual parts of the world indicate that estimated volumes of timber products monitored in volume units and weight units placed on the Czech market and originating from illegal sources are 100,000 m³ (namely raw timber and sawn timber) and up to about 25,000 tons (namely paper, pulp and furniture) resp.

Conclusions

Thus, the implementation of the regulation and of the related legal regulations of EU member countries will prevent the placement of about 16 mil. m³ of illegally harvested timber on the EU market (up to 100,000 m³ and 25,000 tons in the Czech Republic). This will ensure equal conditions for legal production of timber and increase consumer confidence in products made of timber, which is a renewable and environment-friendly material.

The main contribution of legislation newly adopted in the Czech Republic, i.e.:

- Act No 226/2013 Coll., on placing timber and timber products on the market, and
- Decree No 285/2013 Coll., issued by the Ministry of Agriculture, on the scope and method of data transmission into the central repository by operators and state authorities in the field of placing timber and timber products on the market

is, following the Regulation No 995/2010 of the European Union, creation of a legal instrument that will re-act to limit illegal harvesting of timber by means of timber trading and through more stringent supervision over this trading.

In global terms, the limitation of illegal timber harvesting will positively affect the mitigation of climate change, improvement of the condition of forest ecosystems as well as economy (equal position of operators who place legally harvested timber on the market).

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3. Commission Implementing Regulation (EU) No 607/2012 of 6 July 2012 on the detailed rules concerning the due diligence system and the frequency and nature of the checks on monitoring organisations as provided for in Regulation of the European Parliament and of the Council (EU) No 995/2010, laying down the obligations of operators who place timber and timber products on the market
4. Annex to Regulation of the European Parliament and of the Council (EU) No 995/2010
5. Act No 289/1995 Coll., on forests and on the amendment and supplementation of certain acts (Forest Law)
6. Preamble to Act No 226/2013 Sb., on placing timber and timber products on the market
7. Act No 114/1992 Coll., on nature conservation and landscape protection as amended
8. Decree No 285/2013 Coll., issued by the Ministry of Agriculture, on the scope and method of data transmission into the central repository by operators and state authorities in the field of placing timber and timber products on the market.

LAW ON PROPERTY SETTLEMENT WITH CHURCHES AND RELIGIOUS SOCIETIES AND PUBLIC OPINION ON THE RETURN OF CHURCH PROPERTY

JIŘÍ OLIVA¹

Abstract

The paper analyzes the evolution of church forest ownership from its inception until its practical disposal in 1948, and then attempts to remedy this injustice after the political changes in the Czech Republic in 1989. This effort resulted in a bill on property settlement with churches and religious communities, which was adopted by the Parliament in 2012 under No. 428/2012 Coll. The creation and its approval were accompanied by disputes about the method used and the amount of compensation. Two methods were taken into account. The first one, the so-called enumeration method consisted in drawing up a list of property items that were the subject of restoration, and this list would be part of the law. The second, so-called restitution method was received, which set out the basic rules for the inclusion of the property in the restoration process. State offices and in contentious cases also the courts then evaluated the merits of the individual claims. The process of preparation and adoption of the Law was joined by the opinions of the public whose views are documented in the performed research. The conclusion summarizes the benefits of this Act for the state.

Key words: church, church property, religious communities, righting wrongs, property settlement

Introduction

After the political changes in the Czech Republic in 1989, an effort to recover assets, taken by a totalitarian regime from its original owners was a logical consequence of efforts to restore democratic environment and private property rights of citizens and corporations. Act no. 229/1991 Coll., on ownership of land and other agricultural property, was adopted relatively quickly, addressing the return of property of individuals as well as Act no. 172/1991 Coll., on property of municipalities, dealing with the return of municipal property. Even public opinion at that time was inclined towards the church property recovery. The executives decided that the church property will be, due to its complexity, addressed in a special law. Therefore only two enumeration acts were adopted, Act no. 298/1990 Coll. and Act no. 338/1991 as amended, which returned monastery buildings to religious orders and the religious orders could launch their activities. It was, however, only a fraction of the assets and, what is more, in a very bad condition. All estates and economic assets remained the property of the state, waiting for the special law.

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Several attempts were implemented to pass the law, but its acceptance did not meet necessary political consensus not only between the ruling coalition and the opposition, but even within the government itself. The result was a situation where after 21 years the Czech Republic was the only state of the former Soviet bloc whose property relations with churches were not settled. This challenged even the basic constitutional principles of the Czech legislation and the government of Prime Minister Petr Necas made great efforts to rectify this situation. In the end, the efforts were successful.

Methodology

A review of historical materials documenting the rise and development of the property of the churches was selected as a basic research method together with all materials and documents issued by the Ministry of Culture in the preparation of the law. In the literature review materials and records of the House of Parliament were used, where the methodology of the law was revised in the final text. The evaluation of public opinion is the result of an investigation performed by a company for the public opinion research and our own research carried out by the students of the Faculty of Forestry and Wood Sciences at the Czech University of Life Sciences Prague.

A brief overview of the evolution of church property in the Czech Republic

The beginnings of the development of Christianity in the Czech lands date back to the 9th century AD. Greater development, however, occurred only in the 12th century. Until then, nonetheless, we cannot talk about the church property. All churches, rectories, chapels and other religious buildings were built by their landowner, a monarch, later on by nobility or cities. According to the mentioned rights based on the Germanic law (and later the domestic provincial law), the owner of the building was the owner of the land and the church was only a user of these buildings. The owners fully secured the functioning of the church and largely answered even for spiritual development in the area by their own implementation of priests into churches.

This condition began to change after the Lateran Council in 1139. The owners of church buildings abandoned proprietary rights of the church and their ownership became the relationship of patronage. This process, which was still accompanied by the transfer of royal property to religious orders for the purpose of settlement in border areas (i.e. colonization), can be considered the beginning of the churches' property rights.

This was followed by the development of church property, the reason of which was mainly the favour of rulers. In the 14th century, during the reign of Charles IV, the church reached its greatest property. Much credit for this should also be given to expanding people's wellbeing. For rendered services they donated their estates to the church. This led to an abundant construction of religious buildings, but also to the great envy of the nobility and ordinary people. Great power of the church resulted in reformist efforts that culminated in the

outbreak of the Hussite wars. A substantial part of the church property was destroyed and land seized in favour of the non-Catholic nobility. The result was a decline in church land ownership from 30% to 5% in the Czech lands and 18% in Moravia.

At the time of the Habsburg monarchy, church circles made several attempts to return at least part of the property from the period before Jan Hus. With a few exceptions they were rather unsuccessful. During the reign of Ferdinand I. (1526) Prague archbishopric was restored, but only on condition that the church would not claim church property owned by the church before accepting four Articles of Prague, that is before 1419. Yet after the Battle of White Mountain, the Catholic Church asked the monarch to return the property which the church owned before 1419. Even this time it was unsuccessful.

The rise of church property came under the reign of Ferdinand II. He made an agreement with Pope Urban VIII. on economic security of the Prague archbishopric, which also included the removal of the so-called salt tax rate of 15 dimes for a barrel of salt in favour of the church. From obtained funds the church again began buying land and, primarily, Litoměřice and Hradec Králové bishopric originated. The church, on the other hand, gave up all restitution claims.

During the reign of Joseph II., church estates were transferred to religious funds which later merged into "Náboženská matice" fund. The proceeds were to finance the running of the churches. This moment was very often abused by opponents of the return of church property, arguing that since the time of Joseph II. the church did not own any property. But the fact is that there is no single piece of legislation from that time which would declare church estates as state property. There is also no doubt that besides donations and resources the church received from the state, there was also property acquired from own resources of the church.

After the establishment of independent Czechoslovakia a land reform was implemented which also included possessions of the church. However, only 36 thousand hectares of forest were transferred to the state. Afterwards, the reform was postponed for unclear legal interpretations of the transfer of ownership. During the Nazi occupation the Third Reich confiscated most Jewish communities and religious orders, whose activity was directed against Hitler. An example might be the so-called property of Teutonic Knights.

After World War II pressure on the church property continued. Churches were supposed to receive returned assets which they were deprived of during the occupation on the basis of Presidential Decree no. 5/1945 Col. However, due to obstruction, the recovery never occurred. On the contrary, Act No. 142/1947 Coll., on the revision of the 1st Land Reform, was accepted, which restored the confiscation of church property and then the Law no. 46/1948, on the new land reform. The result of these laws was a condition that the church could own gardens by the rectories only, with the size up to 2 ha.

Based on the study of all available materials, it is possible to state the following facts:

- Church property was acquired in a normal and legal way as any other corporate assets. These were mainly:
 - donations and legacies
 - collections for worship
 - purchase from its resources
 - contributions from the state and dowry
 - income from operations on own property

- The property was illegally taken away, in most cases without compensation.
- The property was not returned.
- The state pays the needs of the Church from taxpayers' money, regardless of their affiliation or sympathy for some of the churches.

Logical effort of the state should be the settlement of property relations and the separation of church from the state.

Condition after 1989

After the political changes in 1989, there have been several attempts to resolve the situation. Church property was legislatively blocked until the approval of the special law. This, however, never found the political will and only two enumerated acts, Act no. 298/1990 Coll. and no. 338/1991 were adopted as amended, which returned monastery buildings to religious orders which thus could launch their activity. The closest to resolving the situation was the bill on church property settlement in 2008. The government commission was founded for reconciliation between church and state. Based on the work of this committee, church estates were valued and were to be settled by the so-called combined method, which consisted of issuing a physical property and financial compensation for properties that did not exist or could not be issued. Unfortunately, this bill was not passed due to the premature termination of term of office and new elections to the House of Parliament of the Czech Republic.

Act no. 428/2012 Coll., on property settlement with churches and religious societies

New impetus to the efforts for settlement of property relations with churches was brought by the Constitutional Court, which in 2011 passed a resolution that "... in case of inactivity legislator will provide ecclesiastical entities with legal protection and will allow restore historic property in individual cases." From the resolution it was clear that the state could not avoid the process and that it would be several times more costly in the individual cases. Therefore, work on the creation of new law began immediately. This law also utilized the method and evaluation prepared for the Act of 2008.

The basic attributes of the Act were as follows:

- Evaluation of assets at 134 billion (awarded in 2007).
- Compensation by issuance of real estate 75 billion CZK.
- Financial compensation 59 billion CZK.
- Reducing the state's contribution to the operation of churches.
- Separation of church from the state.
- State assets, especially assets of Forests of the Czech Republic, state enterprise, and those of the Land Fund will be issued only.
- The property belonging to counties will be excluded.
- The evaluation of assets that cannot be issued will be performed by the average price of agricultural and forest land in the Czech Republic.

Important parts of the process were also the economic parameters that would have the least possible burden on the state budget. They were determined as follows:

- The compensation of 59 billion CZK will be paid in 30 annual instalments.
- Inflation will be calculated in the remaining amount.
- Freezing an allowance for 3 years.
- A gradual reduction of the allowance by 5% annually.
- The termination of payments after 17 years.

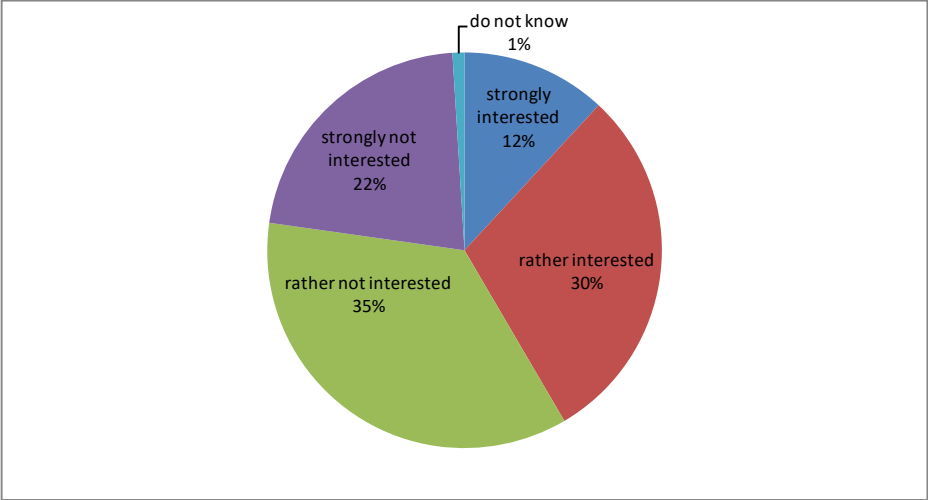
The proposal raised a fierce debate in the House of Parliament. Opposition members of Parliament questioned mainly the continuity of church property and unfairly set amount of compensation. A dismissive opinion of the public was also an argument. Yet the law was finally approved under number 428/2012 Coll., called Law on property settlement with churches and religious communities. A substantial circumstance that facilitated the approval of the law was also an agreement between the churches themselves, which consisted in the fact that the Catholic Church renounced part of their claims in favour of other churches that

were poor in the past. Thanks to this churches stood out in the process as a whole, which greatly strengthened their bargaining position.

Public opinions

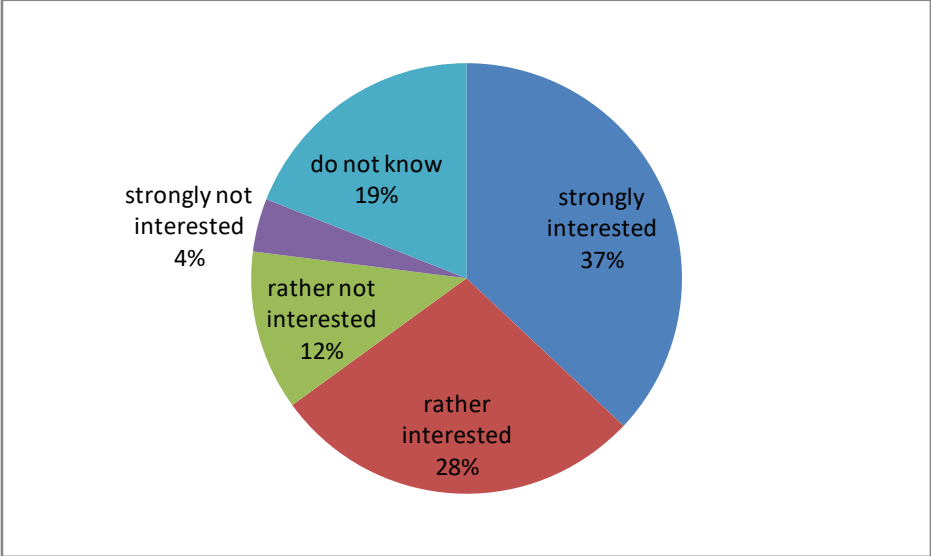
A negative public attitude was a common argument of the opponents of the law. In the evaluation we must take into account not only a sheer number of supporters and opponents of the law, but also the overall public interest in this issue and also the development of the number of believers in the whole time-series since 1990. A statistical survey of public opinion is presented in the following tables:

Table 1 Interest of the public in the issue of property settlement with churches



Source: PORCASCZ

Table 2 Consent of the public to property settlement with churches



Source: PORCASCZ

The survey of the Public Opinion Research Centre at the Czech Academy of Sciences (PORCASCZ) confirms the prevailing negative public opinion on property settlement with churches. This trend is undoubtedly influenced by the development of believers in Czech society from 1990 to the adoption of the Act in 2012. While in 1990, according to the Czech Statistical Office, 4.5 mill citizens were reported to have any form of belief in God; in 2012 it was 2.1 mill only. It means that the number of believers declined by 54%. This suggests that if the property settlements with churches were implemented in the early 90s, the public attitude would have been much more open than it was in 2012.

Another problem of public opinion is that most citizens derive relation to a property settlement with churches from their own relationship with church and its protagonists, not in terms of constitutionality and basic human rights, where the right to property undoubtedly belongs. The ignorance of this perspective, however, would rank the Czech Republic among undemocratic regimes with the restriction of fundamental human rights.

Conclusions

Despite certain reservations it is necessary to evaluate the entire compensation process positively. Besides strengthening the international position of legal state, the country gained many other positives. These include:

- The Czech Republic will finally rank among countries with resolved relationship to churches.
- The state shall return the property which under most of the legal indices does not belong to the state.
- Assets, especially those owned by municipalities and towns, will be unblocked.
- Churches will be independent of the state.
- Citizens are exempt from the obligation to pay churches from their tax regardless of the fact whether they are believers or not.
- The state will save on compensation that would have to be paid during legal proceedings.
- The state will save on the operation of institutions, which are run by church (grammar schools, nursery and secondary schools, hospitals, homes for the elderly, nursing care, care of monuments, churches, etc.).
- 19 grammar schools, 22 kindergartens, 6 higher professional schools, 3 hospitals, 14 hospices, shelters, homes for the elderly, nursing care, care of monuments (6683 temples and churches).

It can be concluded that the benefits of the Act clearly outweigh the possible shortcomings and that the efforts of the then government must be appreciated with reference to a medieval wisdom which says: **"Not all the paths are perfect, but the worst is to thread on none."**

Acknowledgements

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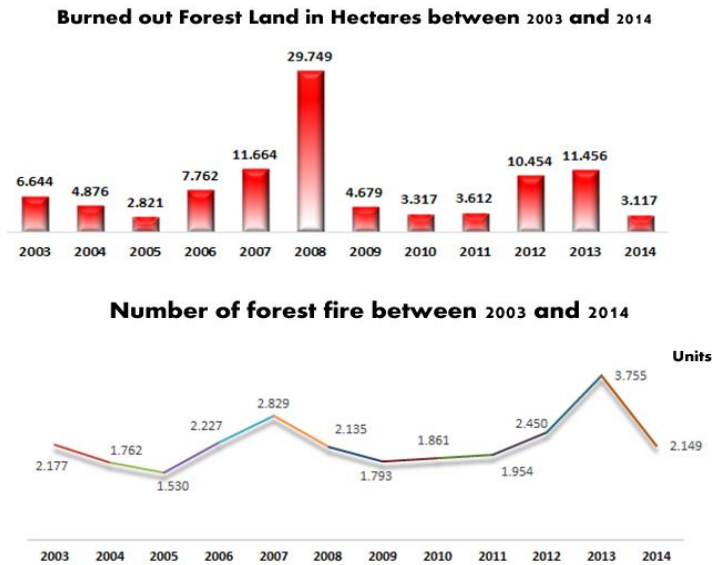
AN ANALYSIS ON TURKISH FOREST FIRE LEGISLATION ACCORDING TO THE FAO CRITERIA

OSMAN DEVRIM ELVAN¹

Introduction

The subject matters of this paper are figuring out the incompetence of the current legislation on forest fires, finding the ways to overcome this incompetence and providing with how to increase the impact of the legislation on the reduction of forest fires. According to the data by Food and Agriculture Organization (FAO), 350 million hectares of forested area is burned out every year (<http://www.fao.org/news/story/en/item/29060/icode/>). Forest fires have become one of the major threats affecting the living conditions for many countries, particularly for the European ones (Tedim et al. 2014). A significant part of these burned areas are known to be man-made (Karki, 2002; Montiel-Molina, 2013). As a matter of fact, it is known that in various cultures, like in India, there is a kind of understanding which considers the vegetation emerging after forest fires as a means of living, including firewood in the first place (Schmerbeck et al. 2015).

61 % of the total forest land of Turkey, which is 21,678,134 hectares, is composed of coniferous trees. Risk of fire on the lands of these coniferous species increases especially in summer and on windy days. In some years, seasonal temperature and reverse wind speed can cause huge forest fires. The forest fire which broke out in 2008 in Serik district of Antalya could not be controlled due to both wind speed and Calabrian pine-forest characteristic and has been recorded as the greatest forest fire ever in Turkey in which 16,925 ha of forest land was burned out (see Chart 1).



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Chart 1 Burned out forest lands and number of forest fires between 2003 and 2014

In spite of various causes for forest fires, when the factors in Turkey are studied, it can be clearly seen that man-made ones have considerable amounts. The latest official data figure out that the rate of man-made factors (in 2014) is 56% (Orman Genel Müdürlüğü 1, www.ogm.gov.tr) (Chart 2),

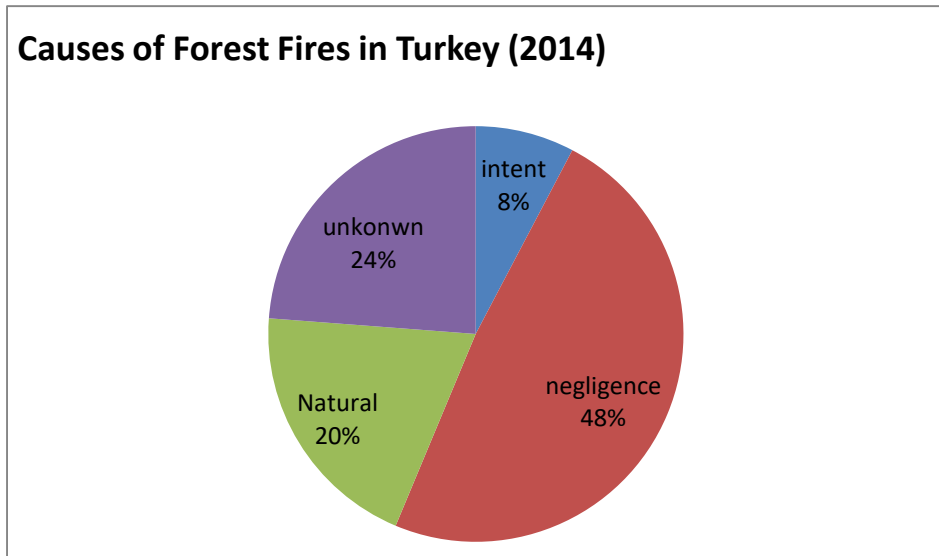


Chart 2 Causes of Forest Fires in Turkey - 2014

If the forest fires causes which haven't been revealed out are distributed proportionally, man-made forest fires come up as the most important problem (Erdem, 1958; Acun,1976; Küçükosmanoğlu, 1990); Mol, 1993;, Kılıç, 2012; Kurt, 2014; Küçükosmanoğlu et al. 2015).

This study examines what kind of measures can be taken through legislation on reduction of forest fires. The survey showed that FAO had prepared a draft guide on this issue. Examining the forest legislation of many countries, a common roadmap had been set. It was realised that FAO had not analysed the Turkish Legislation on the issue during the study and mentioned legislation has been analysed considering the basic criteria set forth by FAO.

Forest Fires and The Law Guide of FAO

The guide published by FAO in 2009 under the name “forest fires and the law”, was prepared according to the international conventions that determine principles on forest fires and according to the legislations of the countries picked by FAO through grouping under geographical regions. The conclusion of the mentioned guide draws a frame on what kind of a regulation should be made in terms of management and legislation concerning forest fires. (Morgera and Cirelli, 2009).

The guide, prepared by experienced lawyers of FAO, inquires the legislations in terms of definitions, organizational structure and coordination among organizations, planning, monitoring and evaluation, prevention and preparedness, scanning, early warning and suppression, participation, social approach to fire management, creating a fire line, rehabilitation and presence of enforcements considering forest fires (Morgera and Cirelli, 2009).

8 basic topics discussed in the guide are expressed briefly as follows:

1. Definitions: It is the part where the basic definitions and technical expressions related to forest fires are to be included and other expressions used within the context of the legislations are defined.

2. Organizational Structure and Coordination among Organizations: Since it concerns every segment of the society, the coordination among the organizations according to the legislations in case of a forest fire is regulated in this part of the guide.

3. Planning, Monitoring and Evaluation: This part deals with the establishment of fire management centres and necessary pre-fire and post-fire planning, monitoring and evaluation processes during the seasons when forest fires peak.

4. Prevention and Preparedness, Scanning, Early Warning and Suppression: In this part of the guide, prevention, prohibition or limitation of flammable elements and possible fire causing activities are regulated. This section includes regulations concerning preparedness against any possible forest fire in spite of taken precautions as well. In addition to the methods to be used during suppression of the fire, the section also covers the provisions that concern scanning and establishment of the necessary technological infrastructure providing early warning for the sake of immediate response.

5. Participation and Social Approach to Fire Management: Due to its direct influence on living conditions especially in regions where forest fire is in close touch with the public, this section includes the provisions about public participation and raising consciousness on the issue.

6. Creating a Fire line: This part regulates under which circumstances and how to use “creating a fire line” method as a means of fire suppression.

7. Rehabilitation: This part aims to rehabilitate the forests and prevent their use for other purposes after fire.

8. Enforcements: In this part, legal and administrative measures against law prohibited acts and responsibility distribution in taking care of necessary precautions during and after any forest fire are defined.

Legal Regulations Regarding Forest Fire in Turkish Forestry Legislation

When the current legislation regarding forest fire is observed, it can be seen that the issue is regulated in the Forest Law No. 6831. The articles between 68 and 76 (not excepting the 76th one) include regulations about suppression of forest fires and illegal practices. The mentioned articles are the provisions regulating issues such as fire calls, priorities and facilities for communication and transportation, civilians to be deployed in case of fire, compensation to be paid to those who were injured and died in the fire, watchtowers for fire prevention, prevention of access to forests in case of any fire risks and prohibition of the burning of fire and other flammable materials in the forests.

In the section that regulates the enforcements of the Forest Law, which include the articles 105, 106, 107 and 110, administrative and criminal penalties are set forth. Those who do not report in spite of witnessing forest fires, those who throw flammable materials to the forest lands and those who set forests on fire either deliberately or by carelessness are sentenced to imprisonment or are imposed fines. Apart from this, those who violate other prohibitions and provisions are sentenced to administrative fine. Besides, as known, it is forbidden to dispose of burned down forest lands, except for their reforestation. This statute has been taken under the provisions of Article 169 of the 1982 Constitution (Elvan, 2009).

On the other hand, when the other written sources in force relating forest fires are examined, it will be realized that there are two regulations and a notification about the issue. Mentioned regulations are “Regulation Regarding Compensation Payable to those Injured and Killed during Forest Fire Fighting” dated 2004 and “Regulation on the Duties of the Officials to be assigned with Prevention and Extinguishing of Forest Fires” dated 1976. Also there exists a notification in force, entitled “Application Guidelines for the Prevention of Forest Fires and Fire Extinguishing”, which is carried out with participation of The Ministry of National Defence, The Ministry of Internal Affairs, The Ministry of Communications and The Ministry of Forestry and Water Affairs.

Analysis of Turkish Legislation in Terms of the Criteria that is Determined by FAO

In this section of the study, each criterion determined by FAO has been evaluated separately as follows considering related Turkish legislation. As mentioned above, these criteria which are to be included within the legislation, are definitions, organizational structure and coordination among organizations, planning, monitoring and evaluation, prevention and preparedness, scanning, early warning and suppression, participation, social approach to fire management, creating a fire line, rehabilitation and enforcements. As for the evaluation to be made in terms of Turkish legislation, it shall be carried out considering the laws, regulations and notification respectively.

Definitions

Among Turkish legislations, there is not a particular law enacted in terms of forest fires. The Forest Law No. 6831 dated 1956 includes some regulations related to the issue. Under definitions of the Forest Law No. 6831 a particular article hasn't been enacted, instead, just the lands which are to be or not to be regarded as forest lands have been defined. Therefore, specific definitions relating forest fires are not present within the Law.

When the regulations are analysed, only limited definitions will be found in the "Regulation Regarding Compensation Payable to those Injured and Killed during Forest Fire Fighting" dated 2004. Mentioned limited definitions are about compensation, forest fire fighting and disability levels. In short, it can be concluded that there are no satisfactory definitions concerning forest fires in the regulations.

When the legislation is studied it is seen that the notification with the issue number 285, which deals with practises, includes comparatively more definitions. Notifications are of the written sources that follow the regulations within the legislation hierarchy and the mentioned notification No. 285 has been issued by the responsible forest administration (General Directorate of Forestry). Forest administration is authorised to make changes according to the situation in these notifications. In this notification, forest fire has been described and the types of fire have been explained. The notification explains the causes of fire in details, methods to be followed during fire fighting, planning and organization during fire extinguishing.

Organizational Structure and Coordination;

General Directorate of Forestry (OGM) is the institution that is responsible in Turkey for dealing with forest fires. It is an institution organised in all regions of Turkey. The Department of Forest Fire Combating works under OGM and this department also has branch offices being operated under district offices. 28 district offices (see Figure 1), 243 forestry departments and 1403 forest sub-district directorates are responsible for fire combating. Each forestry department is equipped with enough amounts of fire engines beside other tools and fire fighting helicopters and planes during seasons when forest fire peaks (Annual Report by OGM, 2015),



Figure 1 District Offices

With the articles 68, 69, 70 and 71 of the Law No. 6831 on mail, communication and transportation organization; the constabulary under internal affairs and the governors of provinces are held responsible for coordination and providing services in fire fighting. For instance, it is stated that the provisions of the “Regulation on the Duties of the Officials to be assigned with Prevention and Extinguishing of Forest Fires” shall be executed by the Ministry of National Defence, the Ministry of Internal Affairs, the Ministry of Communications and the Ministry of Forestry.

Planning, Monitoring and Evaluation

In Turkey, 24-hour surveillance is being carried out through 776 watchtowers for the purpose of forest fire detection and in order to notify response teams as soon as possible.

Article 75 of the Forest Law states that providing watchtowers, communication systems and other equipment for forest fire combating is obligatory and setting a budget for those mentioned above is enacted.

Also, there are regulations on planning and operation of the watchtowers in the Notification No. 285.

Besides, General Directorate of Meteorological Services shares data such as weather conditions, temperature, wind direction and wind force in terms of forest fires. For instance, General Directorate of Meteorological Services shares the most common times of the day when fire outbreaks (for example, time range of the forest fires during a day) (Chart 3).

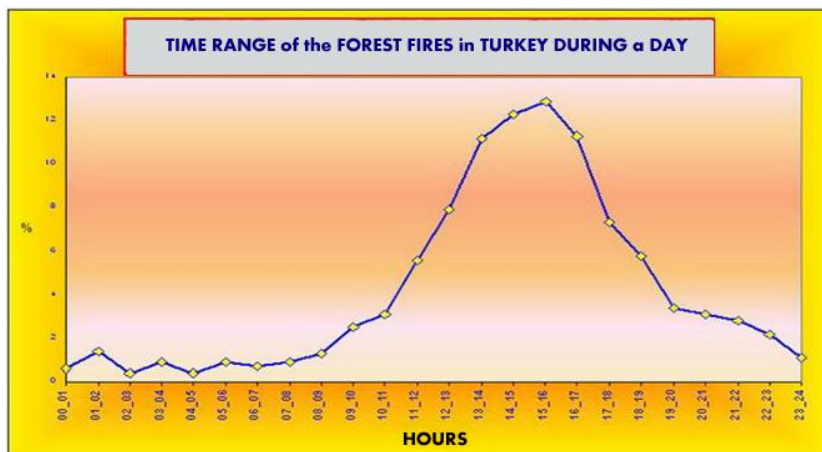


Chart 3 Time Range of the Forest Fires during a Day in Turkey

Prevention and Preparedness, Scanning, Early Warning and Suppression:

As stated above, Article 76 of the Forest Law No. 6831 forbids lighting fire in the forests except for permitted areas; dropping flammable materials and live cigarette ends in the forest lands. As per the Article 110 of the Law, the penalty for these acts is imprisonment from a year to three years.

As mentioned above, Article 75 of the Forest Law states that providing communication systems and other equipment for forest fire combating is obligatory and setting a budget for those mentioned above is enacted.

By the authority granted to OGM by the Law, a system called Forest Fire Early Warning and Management System, which was considered among the best projects in the public in 2005, was established. The system locates the rising smoke within 15 seconds only after the fire starts and forwards the data to Fire Operations Centres. On receipt of the data, response teams decide to interfere whether by land or by air considering geographical features of the area and try to extinguish the fire as soon as possible (Orman Genel Müdürlüğü 2, www.ogm.gov.tr). The software developed with the support of Tubitak (the Scientific and Technological Research Council of Turkey) has been sold to many countries such as the United States of America, Italy, Greece and Tunisia and the software is still used (TUBİTAK, www.tubitak.gov.tr).

Participation and Social Approach to Fire Management:

Due to its direct influence on living conditions especially in regions where forest fire is in close touch with the public, this section includes the provisions about public participation and raising consciousness on the issue.

As in general environmental issues, Turkish legislation is not enough in terms of participation with regard to forest fires. However, Forest Law No. 6831 enjoins the men with the ages from 18 to 50 living nearby the location where fire takes place, to participate in fire fighting efforts in the event that they are asked for. Administrative fine is applied for those who avoid fulfilling this duty. The Regulation Regarding Compensation Payable to those Injured and Killed during Forest Fire Fighting is in force as well.

The Notification No. 285 also includes regulations about those who are to participate in forest fire fighting and states that catering for the participants shall be provided by forest administration.

Creating a Fire line:

This fire extinguishing method, which is also called counter fire, is only regulated within the Notification No. 285 among Turkish forestry legislation. Accordingly, counter fire shall only be applied by the fire warden or a craft authorised by the fire warden due to great risk it bears. The goal of counter fire is getting forest fire under control before it gets worse by rapidly reducing or completely wiping off flammable material on the spreading path. It can be practised in two ways which are simple counter fire and gradual counter fire. While applying this method, fire safety roads and firebreaks, forest roads, natural obstacles and fire extinguishing lines to be created are used. When the slope of the reverse side of the shoulder where the fire spreads exceeds 20 %, counter fire method is not applied.

Rehabilitation:

There are quite strict orders in Turkish legislation to prevent use of the forest lands for other purposes after any forest fire and to provide rehabilitation of these lands. Primarily, Article 169 of the Constitution dated 1982 orders reforestation of burned out forest lands and prohibits any kind of agricultural and stock raising activities on these lands. On the other hand, it is stated in Article 2 of the Law No. 6831 that burned out forest lands cannot be regarded as degraded forest land and cannot be subjected to any permit. Nonetheless, it is enacted by the Law that the penalty for those who commit the crime of occupying forest lands and grazing on burned out forest lands shall be folded double.

Enforcements:

Since it is only possible to regulate the enforcements through laws according to Turkish Constitution, the enforcements against forest fires are regulated in the Law No. 6831. Enforcements regarding forest fires are ensured in the Articles between 68 and 76 of the Law No. 6831. The Articles 104, 105, 106, 107 and 110 regulate the enforcements regarding forest fires.

Accordingly, in the event that those who are called out to work in extinguishing do not obey and those who do not defer the prohibition of forest land entrance due to drought and other reasons shall be imposed fine. Not informing forest administration about any forest fire in spite of witnessing shall be sentenced to imprisonment up to 6 months; lighting fire within the borders of forest lands except for permitted areas, dropping flammable material and live cigarette ends; burning stubble and similar vegetation cover in a distance less than 4 km from the forest land shall be sentenced to imprisonment from 1 to 3 years. Causing forest fire by carelessness shall be sentenced to imprisonment from 2 to 7 years; burning forests deliberately shall be sentenced to imprisonment minimum 10 years and burning forests for terrorist purposes shall be sentenced to life. In addition to afore mentioned penalties, punitive fine shall be imposed. Besides, the Law No. 6831 refers to Turkish Penal Code (TCK) for certain crimes. Civil servants that do not recruit for combating with forest fire shall be sentenced to imprisonment for neglecting their duty; damaging all kind of vehicles and equipment that belong to forest administration and are used in combating with fire shall also be sentenced to imprisonment for causing damage to property (Elvan, 2014).

Conclusions and Recommendations

As is known, forest fires can cause serious consequences. Besides their biological, ecological and atmospheric effects, they threaten residential areas from time to time. When the causes of forest fires in Turkey are studied, as stated in this paper, man-made factors come into prominence. Therefore, the criteria by FAO are of great importance and they have been considered with an understanding of bearing the goal of preventing forest fires primarily. When the mentioned criteria are analysed in terms of sufficiency, the evaluation shall be as follows:

Turkish legislation is insufficient in terms of definitions. Because, first of all, the Forest Law itself is insufficient in terms of definitions and necessary definitions can only be found in the Notification. The definitions should absolutely be regulated by Law and the regulations must include those definitions. For instance, a regulation relating to forest fire

extinguishing issue must necessarily be enacted. Notifications are insufficient weak legal bases.

As for organizational structure and coordination among organizations, a well-arranged organisational structure exists within forest administration related to forest fires. The Law about the Amendments in the Legislative Decree No. 3234 dated 1985 that regulates the organisational structure and duties of General Directorate of Forestry clearly regulates the duties of the Department of Forest Fire Combating and its branch offices. The relevant legislation regulates the coordination among the other public enterprises as well. Therefore, sufficient legislative regulations and practises exist on organisational structure and coordination among organizations relating forest fire.

When planning, monitoring and evaluation analysed, it must be stated that Turkish Forest Administration has sufficient experience and infrastructure in terms of planning, monitoring and evaluation regarding prevention of forest fire due to its steady organisational structure and organisation. The structure and organisation are regulated by the Forest Law No. 6831. Therefore, the result can be assumed as sufficient in terms of mentioned criterion.

Prevention and Preparedness, Scanning, Early Warning and Suppression: As stated before in the study, an early warning system has been installed. The system is efficient both legally and in practise in terms of scanning, preparedness and suppression. However, it is possible to note that legal precautions for prevention of forest fires are insufficient yet and legal gaps exist.

Participation and Social Approach to Fire Management: One of the weaknesses in terms of law and practise regarding forest fires is participation and social approach to fire management. In order to reduce man-made causes, the main criterion should be starting legal studies for participation and social approach to fire management.

Creating a Fire line: This part regulates under which circumstances and how to use a “creating a fire line” method which consists of using counter fire as a means of fire suppression.

Rehabilitation is one of the strengths of the legislation because reforestation of burned out forest lands is under constitutional guarantee. The Law includes provisions that support the issue.

Enforcements are one of the strictest issues in Forest Law considering the practises in terms of forest fire. Except for setting the forest on fire, rest of the crimes defined in the Forest Law No. 6831 are punished when committed deliberately while the mentioned crime is punished even if it is committed by carelessness. Both the prison sentence and fine are quite disincensive. Furthermore, a claim for compensation can be filed in addition to criminal suits for burned out forest lands (Articles 112 and 114 of the Law No. 6831).

Consequently, Turkish Forest Legislation has insufficiency in meeting some criteria of FAO. The most important ones are the insufficient legal regulations especially for prevention of man-made forest fires. Participation and social approach also seem to be rare. Moreover, an important part of principles relating to forest fire extinguishing are regulated only by the Notification instead of Law. These regulations should be reorganized at least by regulations. Issues such as definitions, participation, social approach and training should also be enacted in the Law.

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LEGAL, POLICY AND STRATEGIC FOUNDATION FOR PROMOTION OF THE CONCEPT OF FORESTS WITH HIGH CONSERVATION VALUES IN ARMENIA

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Abstract

The concept of forests with high conservation values (HCV) was developed in 1999 by the Forest Stewardship Council for forest certification purposes to promote responsible forest management. The concept includes six generic categories of forests with HCVs with some of the categories having sub-categories. Since its establishment, the concept has been used not only for certification, but has also been successfully applied in various countries for other purposes such as sustainable forest management, land-use planning, protected areas planning, targeted conservation planning and others. Armenia is a country with rich biodiversity and limited forest cover. Forest ecosystems of Armenia provide various services and benefits. The demand for wood and other forest resources is high. The promotion of the concept of forests with HCVs in Armenia can contribute to improved management and conservation of forests having high conservation values. In the frames of the ENPI-FLEG 2 program a task is ongoing to promote the concept at national level and build capacities for its application. The review of the national legal, policy and strategy frameworks of Armenia related to forests with HCVs was conducted with analysis of main documents linked to forests and biodiversity. It was revealed that there are gaps in the national legal, policy and strategy frameworks for promotion of the concept in Armenia. Revision and amendments of respective documents can establish a proper basis and preconditions for application of the concept in Armenia to result in improved management of forests with HCVs.

Key words: forests, high conservation values, Armenia, legal, policy and strategic frameworks

The concept of forests with HCVs

The concept of “High Conservation Value Forests (HCVF)” was developed by the Forest Stewardship Council (FSC) - an international independent non-profit organization established in 1993 to promote responsible forest management. The Principle 9 of FSC certification system requires identification, management and monitoring of high conservation values (HCVs) in the forests. For the first time the concept was published in 1999 (Jennings et al. 2003).

"HCVs are biological, ecological, social or cultural values which are considered outstandingly significant or critically important at the national, regional or global level" (<https://www.hcvnetwork.org>). There are six internationally agreed generic categories of HCVs. The generic categories and sub-categories of forests with HCVs are presented in Table 1.

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Table 1 High Conservation Values and Their Elements (Source: Jennings et al. 2003).

HCV	Values and their elements
HCV 1	Globally, regionally or nationally significant concentrations of biodiversity values
HCV 1.1	Protected Areas
HCV 1.2	Threatened and endangered species
HCV 1.3	Endemic species
HCV 1.4	Critical temporal use
HCV 2	Globally, regionally or nationally significant large landscape level forests
HCV 3	Forest areas that are in or contain rare, threatened or endangered ecosystems
HCV 4	Forest areas that provide basic services of nature in critical situations
HCV 4.1	Forests critical to water catchments
HCV 4.2	Forests critical to erosion control
HCV 4.3	Forests providing barriers to destructive fire
HCV 5	Forest areas fundamental to meeting basic needs of local communities
HCV 6	Forest areas critical to local communities' traditional cultural identity

Though being initially developed for the FSC purposes, the concept has been then applied also outside of certification for various purposes such as landscape mapping, natural resource planning, conservation and others (Jennings et al. 2003). According to Reitbergen-McCracken (2007) the concept of forests with HCVs can be and has been used in different countries for various purposes, including sustainable forest management, land-use planning, protected areas planning and targeted conservation planning.

Biodiversity and forests of Armenia

The Republic of Armenia (RA) is a high mountainous country with extremely rich biodiversity. According to the Fifth National Report to the Convention on Biological Diversity (The Fifth National..., 2014) the diversity of vascular plants reaches about 3,800 species and there are 549 species of vertebrates and about 17,200 species of invertebrates. There are numerous endemic species, including 500 species of fauna and 144 species of flora.

The Red Book of Plants of Armenia includes 452 species of vascular plants and 40 species of fungi (Red Book of Plants of Armenia, 2010). The Red Book of Animals of Armenia includes 308 species, of which are 155 vertebrates and 153 invertebrates (Red Book of Animals of Armenia, 2010). The species have been registered in the Red Book under different IUCN categories.

The forests of Armenia cover 332, 333 ha or 11.17 % of the total territory of the country. They are located at the altitudes from 500 to 2300-2400 m above sea level at the mountainous slopes with average inclination of 20-25°. There are more than 320 woody species in the forests of Armenia. There are 90 species of vertebrates and more than 2200 species of invertebrates in forest ecosystems of Armenia. Forests have the highest species diversity of invertebrates. Forested ecosystems dominate in the system of state reserves and national parks of Armenia. In total 28.5% of the total territory of protected areas of Armenia is covered by forest landscapes.

Forest ecosystems of Armenia provide various services and benefits. The demand for wood and other forest resources is high; often it is higher than the rate of natural regeneration. The anthropogenic pressure on forests of Armenia mainly includes overuse of forests and forest resources in terms of loggings, grazing, hay-making, land occupation and others. It results in reduction of valuable forest ecosystems, changes in species composition and forest structure, reduction of forest productivity and other negative consequences.

Promotion of the concept of forests with HCVs in Armenia

The promotion of the concept of forests with HCVs in Armenia is conditioned by several factors. In general, the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets adopted by the COP 10 decision X/2 in Nagoya (Strategic Plan for Biodiversity 2011-2020..., 2010) stipulates promotion of high conservation values. The Ecoregion Conservation Plan for the Caucasus (Ecoregion Conservation Plan for ..., 2012) clearly states the action on development of guidelines on identification of forests with HCVs in the Caucasus region, establishment of a normative framework for and building human capacities for the concept application. The Strategy of the Republic of Armenia on Conservation, Protection, Reproduction and Use of Biological Diversity was approved by the Protocol Decision N 54 of the Republic of Armenia Government from 10 December 2015. It states that “forest management plans should consider forests with high conservation values as well as economically valuable and “mature” forests, which ensure respective conditions for survival of numerous representatives of forest biodiversity” (Strategy of the Republic of Armenia on Conservation, Protection..., 2015). The same protocol decision approved also the National Action Plan of the Republic of Armenia on Biodiversity Conservation, Protection, Reproduction and Use for 2016 – 2020. The action plan includes the activity formulated as follows: “1.3 Develop draft protocol decision of the RA Government on national criteria for forests with high conservation values in Armenia.” (National Action Plan of the Republic of Armenia on Biodiversity Conservation, Protection..., 2015).

In the frames of the “European Neighbourhood and Partnership Instrument (ENPI) East Countries Forest Law Enforcement and Governance (FLEG) II Program” (ENPI-FLEG 2 program, www.enpi-fleg.org) a task on promotion of the concept of HCVFs in Armenia is ongoing. The ENPI-FLEG 2 program is funded by the European Union and implemented in seven countries of the EU’s European Neighbourhood and Partnership Instrument East region: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine, and the Russian Federation. Austrian Development Cooperation (ADC) provides additional funds for complementary measures in Armenia and Georgia. Implementation of the program is led by the World Bank (WB), working in partnership with the International Union for Conservation of Nature (IUCN) and the World Wide Fund for Nature (WWF). The task on HCVFs is funded by the ADC.

The aim of the task is “to promote the concept of forests with HCVs at national level and build capacities for application of the concept for improvement of the system of protected areas and as contribution to sustainable forest management on promotion of the concept of HCVFs in Armenia”. More specific objectives of the task include the analysis of the national legal and policy frameworks in terms of reflection of the concept of forests with HCVs, development of draft national guidelines on identification and management of forests with HCVs, testing draft national criteria for identification of forests with HCVs in a pilot forest area as well as consultations with and capacity building for respective stakeholders. Review and analysis of the national legal, policy and strategy frameworks of Armenia related to forests with HCVs

The review and analysis of legal, policy and strategy frameworks has been implemented with review of respective documents to reveal the preconditions and gaps for application of the concept of forests with HCVs in Armenia. It resulted in development of recommendations on amendments to establish a normative basis for application of the concept.

The main legal, policy and strategy documents related to conservation and management of forests and biodiversity in Armenia include the National Forest Policy and

Strategy (NFPS) of the RA (2005), National Forest Program (NFP) of the RA (2005), Forest Code (FC) of the RA (2005), the RA Law on Specially Protected Nature Areas (2006), Regulation on Establishment of SPNAs (2009), Instruction on Forest Management Plans (2005), Strategy and State Program of Conservation and Use of SPNAs of the RA (2014) and Strategy of the Republic of Armenia on Conservation, Protection, Reproduction and Use of Biological Diversity (2015).

The NFPS, NFP and FC have no chapters, provisions or articles defining high conservation values for forests. However, articles 10-13 of the FC classify forests by main special-purpose significance and define the criteria for the mentioned types of forests as well as restrictions on use of respective categories of forests. According to the law the forests of protection significance include: forests in the water protection zones of water bodies; forests located on steep slopes (more than 30 degree); forest belt with the width of 200 m on the upper and lower timberline; forests growing in semi-desert, steppe and forest-steppe areas; and forests within the radius of 100 m surrounding botanical gardens, zoological parks and arboretums. The law prohibits forest regeneration cuttings in the forests of protection significance. According to the law the forests of special significance include: forests in specially protected areas of nature; municipal forests and forests located close to cities; forests of recreational and health protection significance; border forests and forests of military significance; forests having historical and scientific value; and forests protecting sanitary zones. The law limits and prohibits the types of forest use which do not meet the requirements of the protection regime of forests of special significance determined by the RA legislation. Some criteria of forests of protection or special significance resemble some categories/subcategories of forests with HCVs, for example: forests in the water protection zones of water bodies can be similar to sub-category HCVF 4.1 (forests critical to water catchments), forests located on steep slopes can be similar to sub-category HCVF 4.2 (forests critical to erosion control) or municipal forests and forests located close to cities can be similar to HCVF 5 (forest areas fundamental to meeting basic needs of local communities).

The NFP states about the need for biodiversity conservation. One of the activities envisaged by the NFP relates to identification, mapping and protection of model ecosystems/sites for conservation of rare and endangered species of forest biodiversity. The expected outcome of this activity is to ensure protection of the most valuable ecosystems and biodiversity. Another activity relates to implementation of projects to prevent habitat loss and protect key biotopes. The expected outcome is identification of the most valuable forest ecosystems/biotopes and their protection. The mentioned activities can be considered as prerequisite for identification of HCVF 1.2 and 1.3 (threatened and endangered species, endemic species) and HCVF 3 (forest areas that are in or contain rare, threatened or endangered ecosystems).

The Instruction on Forest Management Plans (approved by the RA Minister of Agriculture, 10 August 2005) mainly focuses on forest related issues with almost no consideration of forest biodiversity. The provisions on survey of rare, endangered, relict species or ecosystems are almost missing. Respectively, forest management plans developed for a number of forest enterprises have limited information on forest biodiversity, though some of them have activities on conservation of valuable forest species.

The Law on Specially Protected Nature Areas (SPNAs) defines SPNA as an area or individual object encompassing the terrestrial surface (including underground water, soil and mineral resources) and the airspace above with conservation, scientific, educational, health, historical, cultural, recreational, tourism and aesthetic values and having special conservation regime. However, respective values are not described and the term “high conservation values” is missing in the law. Consequently, the management plans for (forest) state reserves and

national parks have no special provisions or measures on identification and management of areas (forests) with HCVs. This would be important for identification of HCVF 1.1 (protected areas).

Provision 2 of the Regulation on Establishment of SPNAs (2009) stipulates a number of conservation values to be considered for establishment of SPNAs of different categories. In particular, the values include presence of: globally, regionally and nationally threatened ecosystems; globally, regionally and nationally rare, endangered or threatened species of flora and fauna; flora and fauna species registered in the Red Book of Armenia and (or) ICUN Red List; ecosystems serving as nesting sites, migration routes or having special significance for existence of species; important bird areas and important plant areas; rich biodiversity; relict and endemic species; intact ecosystems without anthropogenic impact. The definition of conservation values in the regulation is rather broad and in general they cannot be used as criteria for establishment of SPNAs (Galstyan, 2015). However, many of them can serve as prerequisites for formulation of national HCVF criteria for identification of HCVF 1 (1.1, 1.2, 1.3 and 1.4), 2 and 3. The need for having specific criteria for Armenia for identification of forest areas with concentration of conservation values is obvious. They can be used not only for establishment of SPNAs, but also for identification of forest areas outside of SPNAs, for which respective management regime can be prescribed to ensure conservation of defined values.

The Strategy and State Program of Conservation and Use of SPNAs of the RA (2014) has information on flora and fauna of SPNAs and rare, threatened and endangered species. The information gaps in the mentioned field show the need for further studies on biodiversity within SPNAs to include rare and threatened species and ecosystems. The activity 2.4 of the State Program states identification of priority themes of scientific research in SPNAs and their implementation. The expected outcome is the use of new data in management decision-making. The strategy envisages also better representation of Red Book listed species outside of SPNAs in the system of SPNAs. The above-mentioned can serve as prerequisite not only for identification of HCVF 1 (1.1, 1.2, 1.3 and 1.4) and 3 as well as their improved conservation.

The Strategy of the Republic of Armenia on Conservation, Protection, Reproduction and Use of Biological Diversity (2015) highlights the role of HCVPs for conservation of forest biodiversity. It says about the need to revise forest management plans with consideration of high conservation values. It mentions also the need to consider such values during establishment of new SPNAs. Thus, this document directly says about the need to promote the concept of forests with HCVs in Armenia, also states the first step in the form of development and approval of a draft protocol decision of the RA Government on national criteria for forests with high conservation values in Armenia.

Conclusions

Various strategic and legal documents of Armenia have separate provisions to serve as the basis and preconditions for promotion and application of the concept of HCVPs. However, the concept can be promoted in Armenia if it is properly reflected in respective national legal, policy and strategic frameworks. At present, the concept is clearly stated only in the Strategy of the Republic of Armenia on Conservation, Protection, Reproduction and Use of Biological Diversity. There is a need to stipulate it in national legislation, including Forest Code, Instruction on Forest Management Plans and others. This will result in improved consideration of high conservation values during development and implementation of forest

management plans, ultimately bringing round better management and conservation of respective values.

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LEGAL FRAMEWORK FOR PROTECTED AREAS IN TURKEY

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Abstract

Turkey has a broad range of protected area categories. These were created as a result of initiatives by the national government, and were established under legislation related to natural resources. At the same time, the legal framework for protected areas in Turkey is based on various legislative and regulatory instruments. Legislative tools range from the Constitution to environmental and forestry laws, decree-laws and regulations, and also include some international conventions and agreements.

Protected areas established under National Parks Law No. 2873 are not the only protection tools available. Forestry and environmental legislation also contribute to protection. In this study, the national legal and institutional context for protected areas in Turkey is examined. For that purpose, an analysis is carried out on the legal frameworks for various protected area categories in Turkey that are specifically aimed at the protection of biodiversity and vulnerable ecosystems.

Keywords: Legislation, Protected Area, Turkey

Introduction

Due to the fact that protected areas are situated largely in forest regime, it would be appropriate to provide some information about forest resources in Turkey. Turkey's diverse forest, steppe and wetland ecosystems contain vast and valuable biodiversity resources of global importance. With over 12,000 plant species, including 3,708 that are endemic, Turkey is possibly the most biologically diverse temperate country in the World and Turkey also hosts to 75% of plant species found on the European continent (World Bank, 2001; Can, 2013, Terzioğlu *et al.*, 2015). Turkey has about 22.3 million hectares' forest area, about 28.6 percent of the country's land area, and about 56 percent of that area is productive (OGM, 2015). Therewithal, 99 percent of forests are state-owned and managed by the General Directorate of Forestry (OGM). State forests' management goals as part of national forestry program are identified by considering forests' economic, ecological, social-cultural functions and participation and ecosystem-based functional planning (OGM, 2014).

Table 1 State of Land Use in Turkey (OGM, 2015)

Land Use Type	Area (ha)	(%)
Forest	22,342,935	28.6
Other*	55,661,709	71.4
Total	78,004,644	100

*: other land usages include areas such as unwooded forest soil, tableland, steppe, rocky-stony terrain, marsh graveyard, mine, forage, wetland, authorised facility, rangeland, water, agriculture, roads settlements, and Infrastructures etc.

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The basic objective of legislation over forestry is to establish legal limits for all kinds of forestry activities and operations. Legislative tools range from the Constitution to forestry laws, decrees and regulations. They also include international conventions and agreements (Erdönmez *et al*, 2010).

In Turkey, the conservation objectives of protected areas regime are derived from and elaborated with reference to statutory guidance and policy statements and, in addition to that, protected areas have been established in overwhelming proportion on state-owned lands and managed by the state agencies. According to General Directorate of Nature Conservation and National Parks (DKMP), there are 14 different categories of protected areas in Turkey as shown in Table 2.

Table 2 Protected Areas in Turkey (DKMP, 2016a)

Ministry of Forestry and Water Affairs Protected Areas		Number	Area (ha)
1	National Parks	40	828,614
2	Nature Parks	204	99,394
3	Nature Conservation Areas	31	64,224
4	Nature Monuments	112	6,993
5	Wildlife Enhancement Areas	81	1,192,794
6	Wetlands (RAMSAR areas)	14	184,487
7	Wetlands (Nationally Important areas)	20	278,072
8	Protection Forests	55	250,033
9	Urban Forests	133	10,315
10	Gene Conservation Forests (in-situ)	283	38,828
11	Seed Stands (in-situ)	337	44,664
12	Seed Orchard (ex-situ)	184	1,421
Total Overlapping		1.494	2,999,839
Ministry of Environment and Urbanization Protected Areas		Number	Area (ha)
1	Special Environmental Protection Areas	16	2.460.041
2	Natural Sites	1.273	1.322.748
General Total Overlapping		2.783	5,964,099
For 2015 while the total protected areas has been calculated as 6,782,628 ha, it has been calculated 5,694,099 ha in overlapping areas by the Republic of Turkey The Ministry of Forestry and Water Affairs, Department of Information Technology			

*Data as of 31.12.2015

The ratio of protected areas to total surface area has increased from 4.34 percent (3,385,841 ha) in 2002 to 5.71 percent (4,451,947 ha) in 2015 as shown in Figure 1.

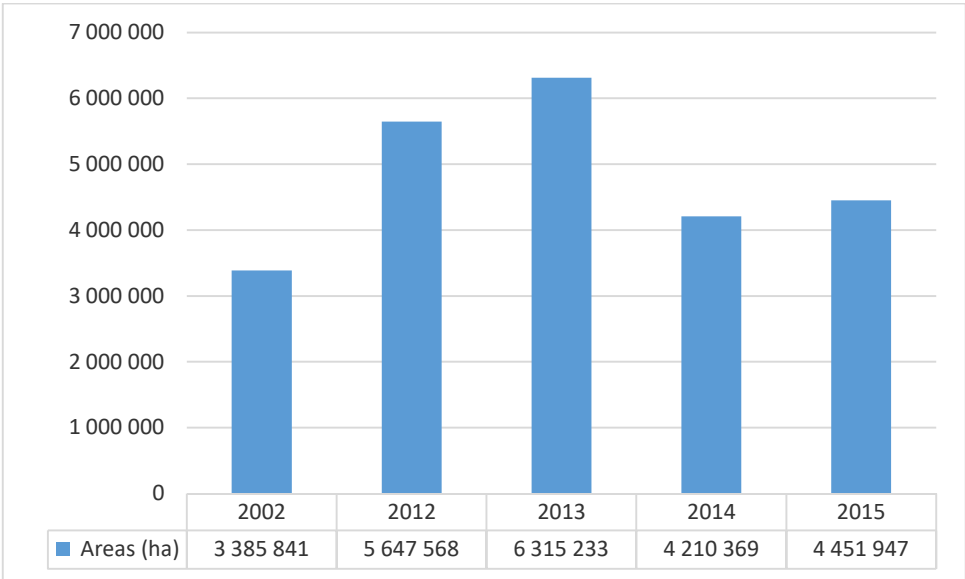


Figure 1 Size of the protected areas on land (DKMP, 2016a; DKMP, 2016h)

However, the percentage and size of protected areas on land and marine together rises to 7.65 % (5,964,099 ha) as is shown in Figure 2.

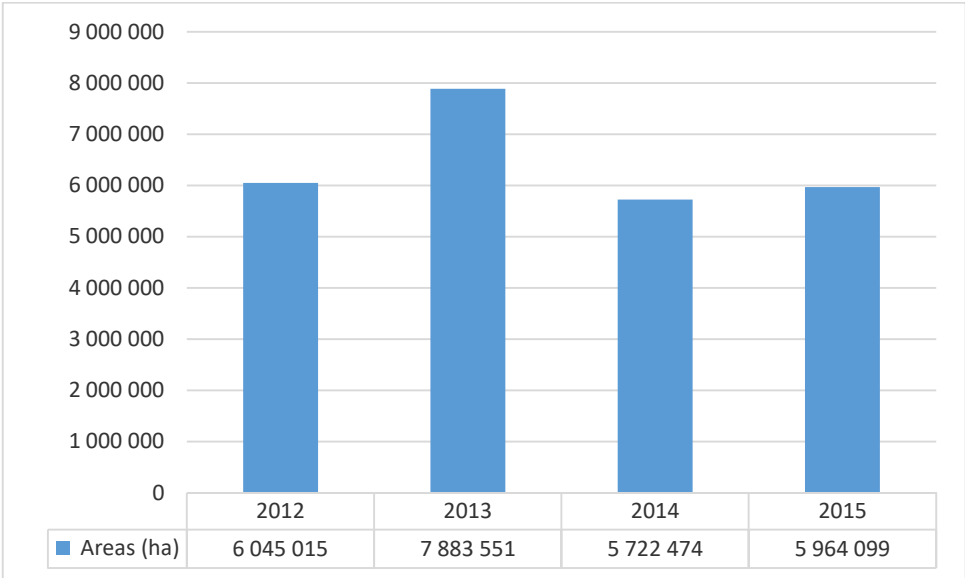


Figure 2 Size of the protected areas on land and marine (DKMP, 2016a; DKMP, 2016h)

At present case, national parks system started with the Yozgat amlığı National Park that was declared in 1958, and the last one; Pitched Battle of Sakarya Historical National Park was declared a national park in 2015 and thus the number of national parks in Turkey has reached 40. detailed information about national parks in Turkey is given in Table 3 as follows:

Table 3 National Parks in Turkey (DKMP, 2016b)

No	Name of Province	Name of National Park	Area (Decares)	Declarations by Year
1	Yozgat	Yozgat amlığı National Park	2, 669.02	1958
2	Osmaniye	Karatepe - Aslantaş National Park	41, 429.09	1958
3	Ankara	Soğuksu National Park	11,870.69	1959
4	Balıkesir	Kuşçenneti National Park	170, 583.65	1959
5	Bursa	Uludağ National Park	130,240.66	1961
6	Bolu	Yedigöller National Park	16,230.69	1965
7	Aydın	Dilek Y. - B. Menderes D. National	275.981.62	1966
8	Manisa	Spil Mountain National Park	68, 010.26	1968
9	Isparta	Kızıldağ National Park	551, 059.08	1969
10	Antalya	Güllük Dağı - Termessos National Park	66,999.77	1970
11	Isparta	Kovada Lake National Park	65, 507.09	1970
12	Tunceli	Munzur Valley National Park	426, 744.86	1971
13	Antalya	Beydağları Sahil National Park	311, 658.77	1972
14	Antalya	Köprülü Canyon National Park	357, 191.56	1973
15	Kastamonu	Ilgaz Mountain National Park	11, 176.96	1976
16	Afyon	Başkomutan Historical National Park	409, 477.83	1981
17	Nevşehir	Göreme Historical National Park	96, 136.52	1986
18	Trabzon	Altındere Valley National Park	44, 677.14	1987
19	Çorum	Boğazköy - Alacahöyük National Park	26, 004.38	1988
20	Adıyaman	Nemrut Mountain National Park	138, 272.77	1988
21	Konya	Beyşehir Lake National Park	868, 551.37	1993
22	Balıkesir	Kazdağı National Park	209, 348.33	1994
23	Rize	Kaçkar Mountains National Park	529, 700.78	1994
24	Artvin	Hatila Valley National Park	169, 437.79	1994
25	Artvin	Karagöl - Sahara National Park	32, 509.72	1994
26	Antalya	Altınbeşik Mağarası National Park	11, 466.48	1994
27	Niğde	Aladağlar National Park	550, 644.08	1995
28	Muğla	Marmaris National Park	292, 060.22	1996
29	Muğla	Saklıkent National Park	16, 432.95	1996
30	Çanakkale	Troya Historical National Park	135, 171.87	1996
31	Denizli	Honaz Mountain National Park	94, 289.76	1998
32	Kastamonu	Küre Mountains National Park	377, 533.75	2000

33	Kars	Sarıkamış-Allahuekber Mountains National Park	225, 198.85	2004
34	Ağrı	Ağrı Mountain National Park	880, 148.04	2004
35	Edirne	Gala Lake National Park	60, 868.44	2005
36	Kayseri	Sultan Sazlığı National Park	243, 576.99	2006
37	Şanlıurfa	Tek Tek Mountains National Park	193, 352.41	2007
38	Kırklareli	İğneada Longoz Forests National Park	31, 550.02	2007
39	Erzurum	Nene Hatun Historical National Park	3, 874.23	2009
40	Ankara	Pitched Battle of Sakarya Historical National Park	138, 504.64	2015

*Data as of 01.07.2015

Nature park system started with the Ölüdeniz-Kıdrak Nature Park that was declared in 1983, and the last one, Isırlık Nature Park was declared as Nature Park in 2015. Detailed information about nature parks in Turkey is given in Table 4 as follows:

Table 4 Nature Parks in Turkey (DKMP, 2016c)

No	Name of Province	Name of Nature Park	Area (Decares)	Declarations by Year
1	Muğla	Ölüdeniz - Kıdrak Nature Park	10, 195.69	1983
2	Çoruma	Çatak Nature Park Nature Park	3, 791.65	1984
3	Bolu	Abant Gölü Nature Park	12, 455.34	1988
4	İsparta	Yazılı Canyon Nature Park	5, 457.53	1989
5	Trabzon	Uzungöl Nature Park	16, 420.13	1989
6	Antalya	Kurşunlu Waterfall Nature Park	5, 965.43	1991
7	İsparta	Gölcük Nature Park	58, 880.51	1991
8	Aydın	Bafa Lake Nature Park	118, 420.73	1994
9	İstanbul	Polonezköy Nature Park	29, 313.17	1995
10	Balıkesir	Ayvalık Islands Nature Park	196, 242.66	1995
11	Kocaeli	Ballıkayalar Nature Park	16, 029.73	1995
12	Kocaeli	Beşkayalar Nature Park	10, 998.30	1998
13	İstanbul	Türkmenbaşı Nature Park	64	1998
14	Konya	Kocakoru Forest Nature Park	3, 307.91	1998
15	Gümüşhane	Artabel Lakes Nature Park	58, 198.64	1998
16	Denizli	Akdağ Nature Park	146, 923.32	2000
17	Artvin	Karagöl Nature Park	3, 682.03	2002
18	Antalya	İncekum Nature Park	264.53	2006
19	Tokat	Balıca Cave Nature Park	4, 829.15	2007
20	Sinop	Hamsilos Nature Park	678.99	2007
21	Afyon	26 Ağustos Nature Park	669.02	2008
22	Ankara	Çamkoru Nature Park	2, 150.40	2008

23	İzmir	Meryemana Nature Park	3, 629.70	2008
24	Manisa	Mesir Nature Park	120.35	2008
25	Adıyaman	Gölbaşı Lakes Nature Park	20, 797.89	2008
26	İstanbul	Park Forest Nature Park	1, 487.35	2008
27	K.Maraş	Kapıçam Nature Park	1, 790.35	2008
28	Kırıkkale	Karaahmetli Nature Park	1, 075.33	2009
29	Antalya	Mavikent Nature Park	425.25	2009
30	Çorum	Sıklık Nature Park	3, 175.38	2009
31	Ankara	Şahinler Nature Park	335.81	2009
32	Çankırı	Hazım Dağlı Nature Park	1, 263.59	2009
33	Ordu	Ulugöl Nature Park	263.84	2009
34	Malatya	Turgut Özal Nature Park	402.79	2009
35	Yozgat	Davulbaztepe Nature Park	725.53	2009
36	Kahramanmaraş	Yavşan Plateau Nature Park	3, 401.46	2009
37	Kırşehir	Aşıkpaşa Nature Park	1, 275.86	2010
38	Giresun	Ağaçbaşı Nature Park	893.17	2010
39	Trabzon	Sera Gölü Nature Park	219.52	2010
40	Adana	Dağılca Nature Park	25.63	2011
41	Adana	Karataş Nature Park	298.67	2011
42	Amasya	Şahin Plateau 75. Yıl Pond Nature Park	478.59	2011
43	Ankara	Eğriova Nature Park	301.09	2011
44	Ankara	Aluçdağı Nature Park	900.01	2011
45	Ankara	Karagöl Nature Park	107.91	2011
46	Ankara	Kartaltepe Nature Park	930.35	2011
47	Ankara	Sorgun Göleti Nature Park	503.07	2011
48	Ankara	Tekkedağı Nature Park	1, 000.14	2011
49	Ardahan	Cemal Tural Nature Park	356.46	2011
50	Aydın	Tavşanburnu Nature Park	117.34	2011
51	Balıkesir	Darıdere Nature Park	104.4	2011
52	Balıkesir	Değirmenboğazı Nature Park	248.91	2011
53	Balıkesir	Sarımsaklı Nature Park	15.86	2011
54	Bartın	Ahatlar Nature Park	93.54	2011
55	Bartın	Balamba Nature Park	235.43	2011
56	Batman	Malabadi Nature Park	243.66	2011
57	Bilecik	Küçükelmali Nature Park	101.19	2011
58	Bolu	Beşpınarlar Nature Park	268.89	2011
59	Bolu	Bolu Gölçük Nature Park	1, 500.03	2011
60	Bolu	Göksu Nature Park	242.54	2011
61	Bolu	Karagöl Nature Park	350.34	2011
62	Bolu	Sünnet Lake Nature Park	882.41	2011
63	Burdur	Salda Lake Nature Park	120.12	2011

64	Burdur	Serenler Hill Nature Park	383.76	2011
65	Bursa	Suuçtu Nature Park	100.02	2011
66	Çanakkale	Ayazmapınarı Nature Park	58.51	2011
67	Çankırı	Kenbağ Nature Park	359.98	2011
68	Düzce	Güzeldere Waterfall Nature Park	227.6	2011
69	Düzce	Kurugöl Nature Park	219.67	2011
70	Edirne	Danişment Nature Park	131.92	2011
71	Edirne	Gökçetepe Nature Park	500.17	2011
72	Elazığ	Hazar Gölü Nature Park	225	2011
73	Eskişehir	Musaözü Nature Park	501.53	2011
74	Gaziantep	Dülükbaba Nature Park	3, 060.02	2011
75	Giresun	Koçkayası Nature Park	3, 542.18	2011
76	Gümüşhane	Limni Lake Nature Park	715.35	2011
77	Gümüşhane	Tomara Şelalesi Nature Park	66.28	2011
78	Isparta	Başpınar Nature Park	395.04	2011
79	İstanbul	Avcıkoru Nature Park	6, 493.74	2011
80	İstanbul	Ayvatbendi Nature Park	510.46	2011
81	İstanbul	Bentler Nature Park	162.97	2011
82	İstanbul	Büyükada Nature Park	26.66	2011
83	İstanbul	Çilingoz Nature Park	194.98	2011
84	İstanbul	Değirmenburnu Nature Park	134.44	2011
85	İstanbul	Dilburnu Nature Park	68.69	2011
86	İstanbul	Elmasburnu Nature Park	134.63	2011
87	İstanbul	F. Rıfki Atay Nature Park	186.83	2011
88	İstanbul	Fatih Çeşmesi Nature Park	276.96	2011
89	İstanbul	Fatih Sultan Mehmet Nature Park	1, 132.14	2011
90	İstanbul	Göktürk Pond Nature Park	568.96	2011
91	İstanbul	Irmak Nature Park	103.87	2011
92	İstanbul	Kirazlıbent Nature Park	191.41	2011
93	İstanbul	Kömürcübent Nature Park	29.26	2011
94	İstanbul	Marmaracık Bays Nature Park	73.19	2011
95	İstanbul	Mehmet Akif Ersoy Nature Park	237.19	2011
96	İstanbul	Mihrabat Nature Park	200.74	2011
97	İstanbul	Neşetsuyu Nature Park	673.1	2011
98	İstanbul	Şamlar Nature Park	3, 344.29	2011
99	İzmir	Çiçekli Nature Park	210.98	2011
100	İzmir	Efeoğlu Nature Park	226.52	2011
101	İzmir	Ekmeksiz Beach Nature Park	101.54	2011
102	İzmir	Gümüldür Nature Park	73.68	2011
103	İzmir	Karagöl Nature Park	189.04	2011

104	İzmir	Tanay Nature Park	302.91	2011
105	İzmir	Yamanlardağı Nature Park	407.76	2011
106	Karabük	Çamlık Nature Park	146.38	2011
107	Karabük	Gürleyik Nature Park	150	2011
108	Kars	Soğuksu Nature Park	114.66	2011
109	Kastamonu	Dipsizgöl Nature Park	51.3	2011
110	Kastamonu	Şehit Şerifebacı Nature Park	107	2011
111	Kastamonu	Yeşilyuva Nature Park	50.28	2011
112	Kayseri	Derebağ Waterfall Nature Park	173.66	2011
113	Kırklareli	Kavaklımeşe Korusu Nature Park	355.54	2011
114	Kilis	Hisar Çamlığı Nature Park	161.28	2011
115	Kocaeli	Eriklitepe Nature Park	632.97	2011
116	Kocaeli	Kuzuyayla Nature Park	1,097.85	2011
117	Kocaeli	Suadiye Nature Park	369.78	2011
118	Kocaeli	Uzuntarla Nature Park	1,898.40	2011
119	Konya	Akyokuş Nature Park	216.18	2011
120	Konya	Yakamanastır Nature Park	866.84	2011
121	Kütahya	Çamlıca Nature Park	346.07	2011
122	Kütahya	Enne Barajı Nature Park	472.27	2011
123	Manisa	Süreyya Nature Park	48.44	2011
124	Mersin	Gümüşkum Nature Park	229.87	2011
125	Mersin	İncekum Nature Park	237.12	2011
126	Mersin	Karaekşi Nature Park	84.8	2011
127	Mersin	Kuyuluk Nature Park	198.17	2011
128	Mersin	Pullu I Nature Park	101.25	2011
129	Mersin	Pullu II Nature Park	333.35	2011
130	Mersin	Şehitlik Nature Park	57.36	2011
131	Mersin	Talat Göktepe Nature Park	261.45	2011
132	Muğla	Çubucak Nature Park	205.29	2011
133	Muğla	Güvercinlik Nature Park	25.77	2011
134	Muğla	İnbükü Nature Park	361.15	2011
135	Muğla	Katrancu Koyu Nature Park	208.68	2011
136	Muğla	Kovanlık Nature Park	42.02	2011
137	Muğla	Küçük Kargı Nature Park	152.82	2011
138	Muğla	Ömer Eşen Nature Park	44.27	2011
139	Muğla	Usluk Koyu Nature Park	142.9	2011
140	Ordu	Çınarsuyu Nature Park	66.79	2011
141	Osmaniye	Çiftmazi Nature Park	499.99	2011
142	Sakarya	İl Ormanı Nature Park	1,029.11	2011
143	Sakarya	Kuzuluk Nature Park	780.63	2011
144	Sakarya	Poyrazlar Lake Nature Park	2,310.01	2011
145	Samsun	Sarıgazel Nature Park	1,265.33	2011

146	Samsun	Vezirosuyu Nature Park	352.78	2011
147	Siirt	Hız. Veysel Karani Nature Park	117.4	2011
148	Sinop	Tatlıca Nature Park	453.09	2011
149	Sinop	Topalçam Nature Park	147.16	2011
150	Sivas	Karşıyaka Nature Park	179.92	2011
151	Sivas	Kızılkavraz Nature Park	57.56	2011
152	Şanlıurfa	Gölpınar Nature Park	2,047.49	2011
153	Tekirdağ	Atatürk Fprest Nature Park	296.16	2011
154	Tekirdağ	Çamlıkoy Nature Park	451.36	2011
155	Tokat	Orman Evleri Nature Park	49.86	2011
156	Tokat	Zinav Lake Nature Park	499.86	2011
157	Trabzon	Çalcamili Nature Park	168.21	2011
158	Trabzon	Çamburnu Nature Park	52.5	2011
159	Trabzon	Görnek Nature Park	51.04	2011
160	Trabzon	Kayabaşı Nature Park	1,269.10	2011
161	Tunceli	Örenönü Nature Park	155.46	2011
162	Yalova	Delmece Plateau Nature Park	197.63	2011
163	Yalova	Harmankaya Nature Park	6.09	2011
164	Yozgat	Kadınpınarı Nature Park	102.13	2011
165	Yozgat	Oluközü Nature Park	312.36	2011
166	Yozgat	Üçtepelere Nature Park	1,717.88	2011
167	Zonguldak	Göldağı Nature Park	136.44	2011
168	Zonguldak	İncüvez Çamlığı Nature Park	55.38	2011
169	Zonguldak	Milli Egemenlik Nature Park	489.11	2011
170	Bolu	Sülüklügöl Nature Park	8,029.17	2011
171	Gaziantep	Burç Nature Park	1,924.61	2012
172	İstanbul	Hacet Deresi Nature Park	160.17	2012
173	Çankırı	Kadıncayırı Nature Park	4,220.48	2012
174	Bilecik	Harmankaya Kanyonu Nature Park	3,975.94	2012
175	Giresun	Kuzalan Nature Park	4,822.45	2013
176	Giresun	Yedideğirmenler Nature Park	1,026.56	2013
177	Uşak	Ulubey Kanyonu Nature Park	1,192.06	2013
178	Artvin	Altıparmak Nature Park	21,109.23	2013
179	Bartın	Gürcüoluk Cave Nature Park	499.27	2013
180	Rize	Tunca Vadisi Nature Park	40,824.52	2013
181	Kocaeli	Gazilerdağı Nature Park	1,038.30	2013
182	Amasya	Boraboy Nature Park	2,595.99	2013
183	İstanbul	Göztepe Nature Park	590.32	2013
184	Yozgat	Yozgat Fatih Nature Park	2,423.52	2013
185	Tekirdağ	Kartaltepe Nature Park	2,537.22	2014
186	Bursa	Sadağı Kanyonu Nature Park	4,361.25	2014

187	Aydın	Şarlan Nature Park	370.29	2014
188	Aydın	Çağlayan Nature Park	380.43	2014
189	Hatay	Belen Geçidi Nature Park	447.09	2014
190	Zonguldak	Danaağzı Nature Park	567.13	2014
191	Bolu	Kargalı Gölcük Nature Park	1, 565.14	2014
192	Düzce	Aydınpınar Waterfall Nature Park	1, 005.00	2014
193	Rize	Akyamaç Waterfall Nature Park	499	2014
194	Bolu	Ayıkayası Nature Park	2, 480.00	2014
195	Malatya	Beydağı Nature Park	331	2014
196	Siirt	Tillo Nature Park	401	2014
197	Adana	Belemedik Nature Park	43, 491.01	2014
198	Bayburt	Yakupabdal Nature Park	2, 075.92	2014
199	Gümüşhane	Çağlayandibi Waterfall Nature Park	174.33	2014
200	Kocaeli	Uzunkum Nature Park	2, 353.83	2014
201	Rize	Handüzü Nature Park	4, 446.94	2014
202	Gümüşhane	Karşıyaka Nature Park	840	2015
203	Rize	Isırlık Nature Park	120	2015

*Data as of 01.07.2015

Nature conservation area system started with the Kökez Nature Conservation Area that was declared in 1987, and the last one, Örumcek Forest Nature Conservation Area was declared as nature conservation area in 1998 and thus the number of nature conservation area in Turkey has reached 31. Detailed information about the nature conservation areas in Turkey is given in Table 5 as follows:

Table 5 Nature Conservation Area in Turkey (DKMP, 2016d)

No	Name of Province	Name of Nature Conservation Area	Area (Decares)	Declarations by Year
1	Bolu	Kökez Nature Conservation Area	3,264.99	1987
2	Burdur	Kargı Köyü Sığla Ormanı Nature Conservation Area	838.25	1987
3	Hatay	Tekkoz - Kengerli Düz Nature Conservation Area	1,822.29	1987
4	Isparta	Kasnak Meşesi Nature Conservation Area	13, 103.83	1987
5	İstanbul	Beykoz Göknarlık Nature Conservation Area	430.96	1987
6	Karabük	Kavaklı Nature Conservation Area	3, 530.60	1987
7	Karabük	Çitdere Nature Conservation Area	7, 305.70	1987
8	Kırklareli	Kasatura Körfezi Nature Conservation Area	3, 206.33	1987
9	Samsun	Haciosman Ormanı Nature Conservation Area	1, 313.74	1987
10	Sinop	Sarıkum Nature Conservation Area	9, 354.81	1987
11	Balıkesir	Kazdağı Göknarı Nature Conservation Area	2, 541.74	1988
12	Bolu	Akdoğan ve Rüzgarlar Ebe Çamı Nature Conservation Area	1, 930.91	1988
13	Bolu	Kale - Bolu Fındığı Nature Conservation Area	4, 727.73	1988
14	Kütahya	Vakıf Çamlığı Nature Conservation Area	6, 905.87	1988
15	Muğla	Sırtlandığı Halep Çamı Nature Conservation Area	7, 314.01	1988
16	Antalya	Alacadağ Nature Conservation Area	4, 230.33	1990
17	Kırşehir	Seyfe Gölü Nature Conservation Area	125, 330.51	1990
18	Antalya	Çıglıkara Nature Conservation Area	155, 642.37	1991
19	Kütahya	Domaniç - Kaşalığ Nature Conservation Area	1, 338.73	1991
20	Antalya	Dibek Nature Conservation Area	5, 601.49	1993
21	Artvin	Çamburnu Nature Conservation Area	1, 746.28	1993
22	Hatay	Habibineccar Nature Conservation Area	1, 192.58	1993
23	Kahramanmaraş	Körçoban Nature Conservation Area	4, 808.09	1993

24	Adana	Yumurtalık Lagünü Nature Conservation Area	169,799.42	1994
25	Afyon	Dandindere Nature Conservation Area	2,570.92	1994
26	Düzce	Demirciönü Nature Conservation Area	4,372.93	1994
27	Muğla	Kartal Gölü Nature Conservation Area	13,425.79	1994
28	Konya	Akgöl (Ereğli Sazlığı) Nature Conservation Area	66,804.09	1995
29	Artvin	Camili-Efeler Ormanı Nature Conservation Area	10,234.92	1998
30	Artvin	Camili-Gorgit Nature Conservation	4,995.42	1998
31	Gümüşhane	Örümcek Ormanı Nature Conservation Area	2,419.26	1998

*Data as of 01.07.2015

Nature Monuments system started with the Samandere Waterfall Nature Monument that was declared in 1988, and the last one, Derebucak Çamlık Mağaraları Nature Monument was declared as nature monuments in 2013 and thus the number of nature monuments in Turkey has reached 112. Detailed information about nature monuments in Turkey is given in Table 6 as follows:

Table 6 Nature Monument Areas in Turkey (DKMP, 2016e)

No	Name of Province	Name of Nature Monuments	Area (Decares)	Declarations by Year
1	Düzce	Samandere Waterfall Nature Monument	109.96	1988
2	Kütahya	Mızıkçam Nature Monument	4.98	1993
3	Adana	Bıgbiğ Orman Sarmaşığı Nature Monument	0.15	1994
4	Ankara	Asarlık Tepeler Nature Monument	523.74	1994
5	Konya	Titrek Kavak Nature Monument	2.49	1994
6	İzmir	Anadolu Kestanesi Nature Monument	52.26	1994
7	Kastamonu	Araç Türbe Çamı Nature Monument	2.49	1994
8	Karabük	Eskipazar Türbeçamı Nature Monument	0.5	1994
9	Konya	Fosil Ardiç Nature Monument	0.5	1994
10	Mersin	Kocakatran Nature Monument	2.49	1994
11	Mersin	Ana Ardiç Nature Monument	0.03	1994
12	Isparta	Barla Sedir Ağacı Nature Monument	2.49	1994
13	Burdur	Çatal Sedir Nature Monument	2.49	1994
14	Çankırı	Dokuzkardeşler Çamı Nature Monument	1.49	1994
15	Sinop	Kızılca Elmalı Meşesi Nature Monument	2.49	1994
16	İzmir	Kunduracı Çınarı Nature Monument	1.49	1994
17	Isparta	Söğüt Yaylası Ulu Ardiç Nature Monument	2.49	1994

18	İzmir	Taşdede Pırnal Meşesi Nature Monument	2.49	1994
19	Sinop	Görkemli Meşe Nature Monument	2.49	1994
20	Denizli	Güney Şelalesi Nature Monument	4.98	1994
21	Adapazarı	Meşe Ağacı Nature Monument	2.49	1994
22	İzmir	Teos Menengici Nature Monument	1.49	1994
23	Yozgat	Ulukavak Nature Monument	1.49	1994
24	İstanbul	Subaşı Havuzlar Nature Monument	2.49	1995
25	Muğla	Bayır Çınarı Nature Monument	1.49	1995
26	Muğla	Bayır Servi Ağacı Nature Monument	1.49	1995
27	Antalya	Kızılağaç Köyü Lübnan Sediri Nature Monument	2.49	1995
28	Antalya	Kocakatran Lübnan sediri Nature Monument	2.49	1995
29	Antalya	Koç Sedir Nature Monument	2.5	1995
30	İzmir	Ovacık Köyü Anadolu Kestanesi Nature Monument	2.49	1995
31	Muğla	Söğüt Köyü Çınarı Nature Monument	2.49	1995
32	Antalya	Şah Ardıç Nature Monument	2.49	1995
33	Muğla	Ulumeşe Nature Monument	1.5	1995
34	Antalya	Aslan Ardıcı Nature Monument	2.49	1995
35	Kastamonu	Beldeğirmeni Köyü Çınarı Nature Monument	1.49	1995
36	Isparta	Çatalçam Nature Monument	2.49	1995
37	Kastamonu	Erenler Çamı Nature Monument	1.49	1995
38	Antalya	Karamık Köyü Sediri Nature Monument	2.49	1995
39	Kastamonu	Oniki Kardeşler Nature Monument	1.49	1995
40	Gümüşhane	Aliağanın Kavağı Nature Monument	1	1995
41	Gümüşhane	Kirani Evliya Ardıcı Nature Monument	2.49	1995
42	İzmir	İlk Kurşun Çınarı Nature Monument	2.5	1995
43	İzmir	Yarendere Fıstıkçamı Nature Monument	2.49	1995
44	İzmir	Yemişçi Çınarı Nature Monument	4.63	1995
45	İzmir	Yemişçi Fıstıkçamı Nature Monument	6.59	1995
46	Muğla	Bitez Yalısı Zeytin Ağacı Nature Monument	2.49	1995
47	Gümüşhane	Örümcek Ormanı Göknarı I Nature Monument	2.49	1995
48	Gümüşhane	Örümcek Ormanı Göknarı II Nature Monument	2.49	1995
49	Gümüşhane	Örümcek Ormanı Göknarı III Nature Monument	2.49	1995
50	Gümüşhane	Örümcek Ormanı Göknarı IV Nature Monument	2.49	1995
51	Gümüşhane	Örümcek Ormanı Ladini I Nature Monument	2.49	1995
52	Gümüşhane	Örümcek Ormanı Ladini II Nature Monument	2.49	1995

53	Gümüşhane	Örümcek Ormanı Ladini III Nature Monument	2.49	1995
54	Gümüşhane	Örümcek Ormanı Ladini IV Nature Monument	2.49	1995
55	İzmir	Kadınlar Kuyusu Koca Menengici Nature Monument	2.49	1995
56	Konya	Meke Gölü Nature Monument	2, 569.49	1998
57	Ankara	Kabaardıç Nature Monument	0.5	2000
58	Eskişehir	Geyikalanı Nature Monument	110	2000
59	Mersin	Mut Yerköprü Şelalesi Nature Monument	1, 115.72	2001
60	Erzincan	Alanın Ardıcı Nature Monument	1	2002
61	Burdur	Ballık Köyü Sediri Nature Monument	1	2002
62	Burdur	Evciler Köyü Sedir Ağacı Nature Monument	1	2002
63	Artvin	Kamilet Doğu Kayını Nature Monument	1	2002
64	Isparta	Kapıderesi Toros Sediri I Nature Monument	1	2002
65	Isparta	Kapıderesi Toros Sediri II Nature Monument	1	2002
66	Isparta	Kapıderesi Toros Sediri III Nature Monument	1	2002
67	Düzce	Kayadibi Posuk Ağacı Nature Monument	1	2002
68	Isparta	Kırıntı Köyü Çınar Ağacı Nature Monument	1	2002
69	Isparta	Kırıntı Köyü Doğu Çınarı Nature Monument	1	2002
70	Burdur	Kocapınar Toros Sediri Nature Monument	1	2002
71	Afyonkarahisar	Koruluk Kermes Meşesi I Nature Monument	1	2002
72	Afyonkarahisar	Koruluk Kermes Meşesi II Nature Monument	1	2002
73	Afyonkarahisar	Koruluk Kermes Meşesi III Nature Monument	1	2002
74	Isparta	Küçükkapı Sedir Ağacı Nature Monument	1	2002
75	Artvin	Melodere Doğu Ladini Nature Monument	1	2002
76	Düzce	Paşabükü Dişbudak Ağacı Nature Monument	1	2002
77	Düzce	Sırıkyayla Göknarı Nature Monument	1	2002
78	Isparta	Tota Dağı Anadolu Kestanesi Nature Monument	1	2002
79	Isparta	Tota Dağı Ardiç Ağacı Nature Monument	1	2002
80	Isparta	Yalnız Ardiç Nature Monument	1	2002
81	Isparta	Yaz Ihlamur Ağacı Nature Monument	1	2002
82	Adana	Acıkise Ardiç Ağacı Nature Monument	1	2002
83	Adana	Acıkise Doğu Çınarı Nature Monument	1	2002
84	Antalya	Dibek Sedir Ağacı Nature Monument	1	2002
85	Antalya	Koca Sedir Ağacı Nature Monument	1	2002

86	Konya	Ađılı Ardıç Nature Monument	0.5	2002
87	Karaman	Altıkardeşler Nature Monument	1	2002
88	Karaman	Dedeardıç Nature Monument	1	2002
89	Adana	Kandildere Ardıç Ađacı Nature Monument	1	2002
90	İzmir	Dede Menengici Nature Monument	1	2003
91	Antalya	Gedelma Çınarı Nature Monument	0.1	2003
92	Eskişehir	Karageyikli Türk Fındığı Nature Monument	1	2003
93	Eskişehir	Kayı Ardıcı Nature Monument	1	2003
94	Eskişehir	Kepez Saçlı Meşesi Nature Monument	1	2003
95	Eskişehir	Keramet Dutu Nature Monument	1	2003
96	Eskişehir	Kokulu Ardıç I Nature Monument	1	2003
97	Eskişehir	Kokulu Ardıç III Nature Monument	1	2003
98	Eskişehir	Kokulu Ardıç III Nature Monument	1	2003
99	Hatay	Onat Çınarı Nature Monument	1	2003
100	Eskişehir	Piribaba Meşesi Nature Monument	1	2003
101	Bingöl	Yüzen Adalar Nature Monument	384	2003
102	Bitlis	Nemrut Kalderası Nature Monument	48,	2003
103	Çankırı	Türbeçanı Nature Monument	1	2006
104	Adıyaman	Dođanlı Çınarı Nature Monument	1	2006
105	Zonguldak	Gümeli Nature Monument	2, 490.85	2008
106	Sinop	Bazalt Kayalıkları Nature Monument	102.49	2011
107	Manisa	Kula Peribacaları Nature Monument	1, 517.07	2012
108	Sakarya	Dođançay Şelalesi Nature Monument	42.33	2013
109	Antalya	Zeytintaşı Mađarası Nature Monument	458.95	2013
110	Mersin	Gilindire Mađarası Nature Monument	1, 065.94	2013
111	Antalya	Kocain Mađarası Nature Monument	608.06	2013
112	Konya	Derebucak Çamlık Mađaraları Nature Monument	7, 477.10	2013

*Data as of 01.07.2015

Wildlife Enhancement Areas system started with the Akyatan Lake Wildlife Enhancement Areas that was declared in 2005, and the last one, Kara Akbaba Wildlife Enhancement Areas was declared as wildlife enhancement areas in 2014 and thus the number of wildlife enhancement areas in Turkey has reached 81. Detailed information about wildlife enhancement areas in Turkey is given in Table 7 as follows:

Table 7 Wildlife Enhancement Areas in Turkey (DKMP, 2016f)

No	Name of Province	Name of Wildlife Enhancement Areas (WLEA)	Area (Decares)	Declarations by Year
1	Adana	Akyatan Lake WLEA	152,911	2005
2	Adana	Pozantı Karanfıldağ WLEA	307,394	2005
3	Adana	Tuzla Lake WLEA	39,741	2005
4	Afyonkarahisar	Sandıklı Akdağ WLEA	148,694	2005
5	Ankara	Beypazarı Kapaklı WLEA	94,709	2005
6	Ankara	Nallıhan Davutoğlan WLEA	4,514	2005
7	Ankara	Nallıhan Emremsultan WLEA	182,841	2005
8	Ankara	Nallıhan Saçak WLEA	52,676	2005
9	Antalya	Akseki İbradı Üzümdere WLEA	184,622	2005
10	Antalya	Alanya Dimçayı WLEA	481,330	2005
11	Antalya	Cevizli Gidengelmiz Dağı WLEA	161,340	2005
12	Antalya	Düzlerçamı WLEA	289,720	2005
13	Antalya	Gündoğmuş WLEA	84,044	2005
14	Antalya	Kaş Kıbrıs Çayı WLEA	35,549	2005
15	Antalya	Sarıkaya WLEA	403,977	2005
16	Antalya	Sivridağ WLEA	81,268	2005
17	Artvin	Yusufeli Çoruh Valley WLEA	232,217	2005
18	Bingöl	Kığı Şeytandağları WLEA	248,587	2005
19	Bitlis	Adilcevaz Süphandağı WLEA	307,375	2005
20	Bolu	Göynük Kapıormanı WLEA	218,962	2005
21	Bolu	Yedigöller WLEA	401,529	2005
22	Bursa	Karacabey Karadağı - Ovakorusu WLEA	285,133	2005
23	Çorum	Kargı Koşdağ WLEA	19,619	2005
24	Denizli	Çardak Beylerli Lake WLEA	9,185	2005
25	Denizli	Çivril Akdağ WLEA	106,343	2005
26	Düzce	Gölyaka Efteni Lake WLEA	7,638	2005
27	Erzurum	Çat WLEA	625,491	2005

28	Erzurum	İspir Vercenik Mountain WLEA	624,488	2005
29	Erzurum	Oltu WLEA	49,803	2005
30	Eskişehir	Mihallıçık Çatacık WLEA	266,535	2005
31	Eskişehir	Sivrihisar Balıkdanı WLEA	13,693	2005
32	Gaziantep	Tahtaköprü Dam Lake WLEA	80,359	2005
33	Hatay	Altınözü WLEA	357,849	2005
34	İstanbul	Çatalca Çilingoz WLEA	356,990	2005
35	İstanbul	Sarıyer Feneryolu WLEA	14,481	2005
49	Karabük	Sırçalı Canyon WLEA	4,107	2005
51	Kars	Kuyucuk Lake WLEA	2,402	2005
53	Kastamonu	Azdavay Kartdağı WLEA	112,162	2005
54	Kastamonu	İlgaz Mountain WLEA	170,696	2005
55	Kastamonu	Taşköprü Elekdağı WLEA	42,363	2005
56	Kastamonu	Tosya Gavurdağı WLEA	92,616	2005
57	Kayseri	Yahyalı Aladağlar WLEA	73,021	2005
58	Kocaeli	Kandıra Seyrek WLEA	10,195	2005
59	Konya	Bozdağ WLEA	592,966	2005
60	Kütahya	Merkez Altıntaş WLEA	136,791	2005
61	Kütahya	Tavşanlı Çatak WLEA	28,019	2005
63	Mersin	Mut Kestel Mountain WLEA	45,465	2005
64	Mersin	Tarsus Kadıncık Valley WLEA	87,117	2005
68	Muğla	Köyceyiz WLEA	313,739	2005
69	Muğla	Yılanlı Çakmak WLEA	15,038	2005
70	Niğde	Çamardı Demirkazık WLEA	186,741	2005
71	Osmaniye	Zorkun Plateau WLEA	38,663	2005
72	Rize	Çamlıhemşin Kaçkar WLEA	42,737	2005
74	Samsun	Bafra Kızılırmak Deltas WLEA	51,730	2005
75	Samsun	Terme Gölardı Simenlik Lake WLEA	33,487	2005
76	Sinop	Bozburun WLEA	10,537	2005
36	Adana	Adana Maraş Hançerdersi WLEA	78,949	2006
37	Adana	Adana Seyhan Dam Lake WLEA	114,364	2006
38	Afyonkarahisar	Afyon Dinar Karakuyu Lake WLEA	13,741	2006
39	Ardahan	Ardahan-Posof WLEA	586,858	2006
40	Balıkesir - Kütahya	Balıkesir-Kütahya-Akdağ WLEA	35,508	2006
41	Bartın	Bartın-Ulus-Sökü WLEA	63,743	2006
42	Bolu	Bolu (Abant) WLEA	19,310	2006
43	Burdur	Burdur-Burdur Lake WLEA	262,294	2006

44	Burdur	Burdur-Karakaş Lake WLEA	40,216	2006
45	Gümüşhane	Gümüşhane - Şiran Kuluca WLEA	52,301	2006
46	Hatay	Hatay-İskenderun-Arsuz WLEA	260,767	2006
47	İzmir	Selçuk Gebekirse Lake	5,453	2006
48	İzmir	Bayındır-Ovacık WLEA	57,889	2006
50	Karabük	Yenice WLEA	267,753	2006
52	Kars	Sarıkamış Kağızman WLEA	199,389	2006
62	Kütahya	Merkez-Türkmenbaba WLEA	118,885	2006
65	Mersin	Çamlıyayla-Cehennemderesi WLEA	273,848	2006
66	Mersin	Hisardağ ve Gedikdağı WLEA	41,892	2006
67	Mersin	Tarsus-Hopur Topaşır WLEA	59,842	2006
73	Sakarya	Kaynarca-Acarlar Lake WLEA	27,517	2006
77	Şanlıurfa	Kızılkuyu WLEA	205,041	2006
79	Tokat	Kaz Gölü WLEA	12,160	2006
80	Zonguldak	Yeşilöz WLEA	91,684	2006
78	Şanlıurfa	Birecik Fırat WLEA	1,799	2011
81	Ankara	Kara Akbaba WLEA	14,688	2014

*Data as of 01.07.2015

In Turkey, there are also some areas under the responsibility of General Directorate of Nature Conservation and National Parks but that have not been in the status of protected areas yet. Those areas are RAMSAR areas covering 184.487 hectares in total and Nationally Important Wetland areas covering 288.427 hectares in total. Detailed information about wetland areas in Turkey is given in Table 8 as follows:

Table 8 Wetland Areas in Turkey (DKMP, 2016g)

Wetland Areas (RAMSAR)

	Name of Wetland	Area (ha)	Name of Province
1	Uluabat Lake	19,900	Bursa
2	Manyas (Kuş) Lake	20,400	Balıkesir
3	Göksu Deltas	15,000	Mersin
4	Akyatan Lake	14,700	Adana
5	Gediz Deltas	14,900	İzmir
6	Burdur Lake	24,800	Burdur
7	Sultansazlığı	17,200	Kayseri
8	Seyfe Lake	10,700	Kırşehir
9	Kızılırmak Deltas	21,700	Samsun
10	Yumurtalık lagoon	19,853	Adana
11	Nemrut Lake	4,589	Bitlis
12	Kuyucuk Lake	416	Kars
13	Kızören Sinkholes	127	Konya

14	Meke Maarı	202	Konya
	Total Area	184,487	
Wetland Areas (Nationally Important)			
	Name of Wetland	Area (ha)	Name of Province
1	Acıgöl	55,095	Afyonkarahisar
2	Ahlat Reeds	243	Bitlis
3	Akgöl	1,203	Van
4	Aktaş Lake	4,109	Ardahan
5	Aygır Lake	1,034	Kars
6	Çıldır Lake	39,151	Ardahan
7	Güney Keban Barajı	41,424	Elazığ
8	Hazar Lake	28,846	Elazığ
9	Heybeli (Norşin) Lake	53	Bitlis
10	Hürmetçi Reeds	15,713	Kayseri
11	İron Reeds	13,746	Bitlis; Muş
12	Karasu Deltası	339	Van
13	Karkamış Taşkın Plain	27,396	Gaziantep; Şanlıurfa
14	Ladik Lake	1,836	Samsun
15	Nazik Lake	11,164	Bitlis
16	Putka Lake	4,181	Ardahan
17	Sarısu Plain Wetlands	10,092	Ağrı
18	Turna (Keşiş) Lake	3,045	Van
19	Yeniçağa Lake	8,224	Bolu
20	Yüksekova(Nehil) Reeds	21,533	Hakkâri
	Total area	288,427	

*Data as of 01.07.2015

Legal framework

Wide array of legal instruments establishes the overall framework for protected areas in Turkey.

Constitutional Provisions

The Constitution of 1982 contains provisions⁴ in order to protect, develop and maintain natural resources. In the Constitution, still in force, it is obviously stated⁵ that the

⁴ **A. Health services and protection of the environment**

ARTICLE 56- Everyone has the right to live in a healthy and balanced environment.

It is the duty of the State and citizens to improve the natural environment, to protect the environmental health and to prevent environmental pollution. The State shall regulate central planning and functioning of the health services to ensure that everyone leads a healthy life physically and mentally, and provide cooperation by saving and increasing productivity in

State has the right of managing and governing all state forests. State also has the authority of surveillance and control over forests that are private or belongs to the public legal entities.

Laws

National Parks Law

National Parks Law No. 2873 of 1983 constitutes the backbone of protected areas in Turkey. Under the National Parks Law, lands have been set aside to protect wildlife and their habitat in the interests of conservation and research. The purpose of this law is the selection

human and material resources. The State shall fulfil this task by utilizing and supervising the health and social assistance institutions, in both the public and private sectors. In order to establish widespread health services, general health insurance may be introduced by law.

XI. Protection of historical, cultural and natural assets

ARTICLE 63- The State shall ensure the protection of the historical, cultural and natural assets and wealth, and shall take supportive and promotive measures towards that end. Any limitations to be imposed on such privately owned assets and wealth and the compensation and exemptions to be accorded to the owners of such, because of these limitations, shall be regulated by law.

III.Exploration and exploitation of natural resources

ARTICLE 168- Natural wealth and resources shall be under the authority and at the disposal of the State. The right to explore and exploit these belongs to the State. The State may delegate this right to persons or corporate bodies for a certain period. Of the natural wealth and resources, those to be explored and exploited by the state in partnership with persons or corporate bodies, and those to be directly explored and exploited by persons or corporate bodies shall be subject to the explicit permission of the law. The conditions to be observed in such cases by persons and corporate bodies, the procedure and principles governing supervision and control by the State, and the sanctions to be applied shall be prescribed by law.

⁵ IV. Forests and the forest villagers

A. Protection and development of forests

ARTICLE 169- The State shall enact the necessary legislation and take the measures required for the protection and extension of forests. Burnt forest areas shall be reforested; other agricultural and stockbreeding activities shall not be allowed in such areas. All forests shall be under the care and supervision of the State. The ownership of state forests shall not be transferred. State forests shall be managed and exploited by the State in accordance with the law. Ownership of these forests shall not be acquired by prescription, nor shall servitude other than that in the public interest be imposed in respect of such forests. Acts and actions that might damage forests shall not be permitted. No political propaganda that might lead to the destruction of forests shall be made; no amnesties or pardons specifically for offences against forests shall be granted. Offences committed with the intention of burning or destroying forests or reducing forest areas shall not be included within the scope of amnesties or pardons.

The reducing of forest areas shall be prohibited, except in respect of areas whose preservation as forests is considered scientifically and technically useless but conversion into agricultural land has been found to be definitely advantageous, and in respect of fields, vineyards, orchards, olive groves or similar areas which technically and scientifically ceased to be forest before December 31, 1981 and whose use for agricultural or stockbreeding purposes has been found advantageous, and in respect of built-up areas in the vicinity of cities, towns or villages.

and determination of national parks, nature parks, nature monuments, nature conservation areas with values at national and international level in the country while protecting their features and characteristics intact, and to regulate the principles for their development and management.

The law consists of 25 articles divided into eight parts: (1) Objectives and Definition; (2) Determination, Planning and Expropriation; (3) Permissions; (4) Duties; (5) Protection; (6) Fund; (7) Penalties; (8) Final provisions.

The law clearly defines the national parks, nature parks, nature monuments, nature conservation areas in Article 2 below;

a) **National Park** is a natural area having, from scientific and aesthetic standpoints, both natural and cultural values of rare national and international stand, and natural, recreational and touristic sites,

b) **Nature Park** is a natural area containing characteristic vegetation and wildlife features, and is suitable for recreation activities and repose of public in its scenic wholeness.

c) **Natural monument** is a natural area having the characteristics and scientific values caused by nature or natural phenomena and protected within the framework of the principles on national parks,

d) **Nature conservation area** is a natural area designated to be used only for scientific and educational purposes containing rare, threatened or endangered ecosystems and/or species and outstanding samples caused by natural phenomena, and which should definitely be protected.

The law also points out how to designate a national park, nature park, nature monument, and nature conservation area in Article 3. According to the Article 3; upon the proposal of the Ministry of Environment and Urbanization, the areas determined to have the characteristics of a national park by the Ministry of Forestry and Water Affairs will be designed as national park by the Council of Ministers, obtaining the favourable view of the Ministries of National Defence, Ministry of Energy and Natural Resources, and Ministry of Culture and Tourism, and other related ministries as well.

In the areas within forest and forest regime, designation of nature parks, natural monuments and nature conservation areas will be designated by the approval of the Ministry of Forestry and Water Affairs.

In the areas out of the forest and forest regime, designation of nature park, natural monument and nature conservation area or the areas required to be included in the forest regime in order to complete the process on those previously designated as such by the Ministry of Forestry and Water Affairs, with the decision of the Council of Ministers upon the proposal of the Ministry of Environment and Urbanization by taking the opinion of the related ministries and these areas have been registered by the Ministry of Environment and Urbanization.

Article 5 provides for the nationalization of immovable property within the boundaries of designated areas.

According to Article 7 for permission for all types of plans, projects and investments to be carried out by “public institutions and organizations” in national parks or nature parks, they must comply with the park plans, may be granted by the Ministry of Forestry and Water Affairs, and applications inspected according to the provisions of the Law. But, within the scope of this law, historical and archaeological sites excavation, restoration and scientific research is subject to the permission of the Ministry of Culture and Tourism.

According to Article 8 in order to construct buildings and facilities for touristic purposes in the national parks and nature parks that are outside of the Tourism regions, areas and centres, yet providing public interest requirement and within the plans, the permission may be granted by the Ministry of Forestry and Water Affairs in favour of real and legal persons of private law by taking the opinion of the Ministry of Finance into account. The duration of the usufruct established in favour of real persons and legal entities may not exceed forty-nine years. At the end of this period all facilities will be transferred to the Treasury in full. Nevertheless, the duration of the beneficiary owner of usufruct whose operational success is documented by the Ministry of Culture and Tourism may be extended to ninety-nine years by the Ministry of Forestry and Water Affairs on an amount determined on the basis of the current value of the particular facilities. In this instance, the transfer to Treasury shall be performed at the end of the said period. The permissions mentioned may not be granted unless the development plans for the national parks and nature parks are being finalized.

Forest Law

Forest Law No. 6831 of 1956 sets forth the basic forestry legislation and categorizes Turkey's forests into two main groups in terms of a) ownership and governance and b) qualifications and character, both of which are subcategorized respectively within themselves as State Forests, Forests belonging to the public legal entities, and Private Forests; production forests, conservation forests and national parks.

Protection Forests, Urban Forests, Gene Conservation Forests (in-situ), Seed Stands (in-situ) and Seed Orchard (ex-situ) are generally located within the forest regime created under the Forest Law.

Law No. 3234 on the General Directorate of Forestry (OGM)

This Law, established by the General Directorate of Forestry (OGM), lists the duties of the Directorate, many of which constitute a specification of the Ministry's functions. They include forest development (including production, transportation, stocking, silvicultural works, and forest roads), administration of the cadastre and related issues, staff training. The functions of the General Director, Assistant General Directors, of individual Departments and of the Regional and District offices are also specified. As this Law was in place before the "Organic Law" of the Ministry was adopted, some of its provisions have become inadequate, being based on the previous organization of the Ministry (FAO, 2016a).

Land Hunting Law

Land Hunting Law No. 4915 of 2013 is another important law that directly affects the protected area regime in Turkey. Because, 81 units of Wildlife Enhancement Areas that are covering 1.192.794 ha are established under the Land Hunting Law.

This Law sets forth rules and principles for the following: habitat of game and wild animals; their protection and development; game and wildlife management; establishment and management of hunting grounds; organization and regulation of game, hunting tourism and production and trading of wild animals. A Central Game Commission and provincial game commissions shall be established to regulate game rules. Wild game specified by the Ministry of Forestry and Water Affairs will be included in the protection list by the Central Game Commission. Animals that are included in the protection list cannot be hunted. The Central Game Commission shall have the authority to ban or restrict hunting of certain species.

Hunting methods and gear are also defined by the Central Game Commission and the use of poison for hunting purposes shall be prohibited (FAO, 2016b).

The law clearly defines wildlife enhancement area in Article 2 as: Areas that hunt, wild animals and wildlife are protected and enhanced; are raised wild animals; are remedial measures taken for the living environment of, and areas hunting can be carried out within the framework of the private hunting plan.

Law No. 2863 on the Protection of Cultural and Natural Assets.

Law on the Protection of Culture and Natural Assets sets forth principles and procedures of protection, development and management of historical, cultural and natural resources. The law designates movable and immovable cultural and natural assets, to designate protection areas and archaeological sites. It sets forth the procedures and principles for their management, protection and conservation. The Law further sets forth the rules regarding the expropriation of and the obligations and responsibilities of real and legal persons regarding these assets. The Law also covers the principles and procedures governing research, drill and excavations. (FAO, 2016c).

Environment Law

Stated objectives of Environment Law No. 2872 of 1983 include making provision for the improvement of use of land and natural resources and preserving Turkey's vegetative and livestock assets and natural and historical richness (Article 1). Provisions of Section 3 prohibit various forms of pollution, empower the Council of Ministers to declare "Special Environmental Protection Areas", oblige "institutions, agencies and establishments" which may cause harm to the environment to prepare environmental impact assessment reports, and regulate licences and inspection (FAO, 2016d).

This Law amended by Law No. 5491. The purpose of the Law was redefined as follows: "*to ensure the preservation of the environment, which is a common asset of all living beings, through sustainable environment and sustainable development principles*". A Supreme Environment Board, chaired by the Prime Minister, shall be established, and its main tasks include: the formulation of the targets, policies and strategies; the definition of legal and administrative measures to include environment aspects to economic decisions; the resolution of environment-related disputes among the ministries and agencies, etc. (FAO, 2016e).

Decree-Laws

Decree-Law No. 645 on the Establishment and Duties of the Ministry of Forestry and Water Affairs

This Decree-Law sets forth provisions regulating the establishment, duties, powers and responsibilities of the Ministry of Forestry and Water Affairs. The duties of the Ministry are establishing policies concerning the protection, management and improvement of all forests, pasture land reclamation, desertification and erosion control, afforestation as well as establishing policies concerning the sustainable use, protection and management of water resources. The Ministry is responsible the protection, management and improvement of national parks, nature parks, natural monuments, wetlands, biological diversity and wildlife (FAO, 2016f).

Decree-Law No. 383 on the Establishment of an Environmental Protection Institution

This Decree-Law sets forth provisions on establishment of Environmental Protection Institution, which is responsible for taking necessary precautions for eradicating existing environmental problems in the areas defined as “Special Environmental Protection Area” under Article 9 of the Environment Law No. 2872. Amendments to the Decree-Law made in 1999 include: (i) the title of this Decree-Law as above; (ii) the upper organization has been named as the Ministry of Environment and Urbanization instead of the Prime Ministry; (iii) revocation of section III on the Environmental Protection Board. The Law provides a complete organizational chart of the Environmental Protection Board and functions of each department (FAO, 2106g).

By-Law

There are many regulations on the subject, of which the most important are selected and studied.

By-Law on Procedures and Principles of Determination, Registration and Approval of Protected Areas

The Regulation sets forth the procedures and principles of determination, registration, approval, change and announcement of natural sites, special environmental protection areas and natural assets, national parks, natural parks, natural monument, natural conservation area and wetlands. This Regulation implements related provisions of Law on the Protection of Cultural and Natural Assets, National Parks Law, Decree-Law No. 383 on the Establishment of an Environmental Protection Institution, and Decree Law No. 644 on the establishment and functions of the Ministry of Environment and Urban Urbanization (FAO, 2016h).

By-Law on National Parks

The objective of this Regulation is to arrange the implementation of the National Parks Law and Article 25 of the Forestry Law, No. 6831. This Regulation has been prepared in accordance with Article 22 of the Law on National Parks and Supplementary Article 5 of Forestry Law that has been included in Amending Law No 2896. The Regulation specifies the fundamental principles and criteria for national parks. The Regulation indicates that necessary plans for natural parks, nature monuments and nature protection areas will be prepared. The Regulation also specifies the establishment and management procedures of national parks. Ownership and expropriation procedures are defined. Licences that can be granted to public institutions and agencies, as well as to individuals and private agencies are defined in details (FAO, 2016i).

By-Law on the Protection of Wetlands

The Regulation implements clause (e) of paragraph 1 of Article 9 of Environment Law No. 2872, Articles 2, 8 and 26 of Decree-Law No. 645 on the establishment and duties of the Ministry of Forestry and Water Affairs and Article 4 of Land Hunting Law No. 4915. The purpose of this Regulation is to define the principles of protection, management and development of wetlands and their habitats in Turkey’s land borders and the continental shelf. This Regulation also defines the principles of cooperation and coordination between government agencies and organizations. This Regulation also covers the establishment of the National and Provincial Wetland Commissions (FAO, 2016i).

By-Law on the implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora

The Regulation implements Environment Law No. 2872, Forest Law No. 6831, Amending Law No. 5919 on National Parks, Land Hunting Law No. 4915, and Fisheries Law No. 1380. This Regulation sets forth the principles and procedures regarding the implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora aiming at the sustainability of the endangered species. It also provides for the control of their international trade. The regulation further sets forth provisions regarding the duties, responsibilities and coordination among various institutions regarding this matter (FAO, 2016j).

Institutional framework

Ministry of Forestry and Water Affairs

Network of protected areas in Turkey is overwhelmingly situated on State Forests and administered by state agencies at the national level. From the perspective of management, agency - notably the Ministry of Forestry and Water Affairs - is responsible for most of the protected areas in Turkey.

Duties of the Ministry of Forestry and Water Affairs include developing policies for protection of nature, determining protected areas; protecting, managing, improving, operating national parks, natural parks, natural monuments, protected wildlife reserves, wetlands; preserving biological diversity as well as game and wildlife (OSB, 2016).

One of the main service units of the Ministry of Forestry and Water Affairs related to protected areas is General Directorate of Nature Protection and National Parks and one affiliated institution is General Directorate of Forestry.

General Directorate of Nature Protection and National Parks

General Directorate of Nature Conservation and National Parks is the most important guarantee in country's biodiversity, nature and management of protected areas (Dikyar, 2014). According to the OSB (2016) the duties of the General Directorate of Nature Protection and National Parks are as follows:

- To perform the functions such as designation, organization, protection,
- development, management and advertisement of national parks, nature parks, nature monuments, nature conservation areas and wetlands,
- To perform the duties determined by National Parks Law,
- To protect and enhance wild animals, forest game hunting resources and water resources in forests as well as brook, pond and river, wetlands and vulnerable areas, plan and manage hunting resources and control any studies such as inventory, planning, projects, implementation and monitoring, and establish facilities for these services,
- To protect biodiversity and to take measures regarding the conservation of flora and fauna and their habitats taken under protection through international conventions,
- To define principles of the protection and use in selected regions agreed by international protection conventions,
- To observe sensitive areas, and carry out the related works accordingly,
- To carry out the works concerning the protection of animals in cooperation with relevant institutions and non-governmental organizations, support and control the activities organized in this regard,
- To carry out the works and activities related to the conservation and enhancement of plant and animal genetic resources within its responsibility,
- To carry out the works and procedures for regulating forest game hunting,
- To carry out the works in the sustainable development context acting as a bridge among the sectors.

General Directorate of Forestry

General Directorate of Forestry is responsible for protecting forestry and forestry resources against danger of all sorts; developing them in a nature friendly approach and managing forestry and forestry resources within the integrity of ecosystem and in a manner that will avail the society of multi-purpose sustainable outcomes (Kılıç, 2014).

According to the OGM (2016) the duties of the General Directorate of Forestry are as follows:

- To ensure the development of forests, to protect them against any illegal interventions, natural disasters, fires and invasive pests, and carry out necessary controls in this regard.
- To manage forests in accordance with technical, socio-cultural, ecological and economic requirements by safeguarding the sustainability of forest products and services; to carry out the works and procedures regarding production, transportation and storage of forest products and to market these products at home and abroad, and to provide vehicles and equipment necessary for forestry activities.
- To restore and rehabilitate forests and to ensure silvicultural maintenance and regeneration of forests;
- To carry out the works and procedures related to forest ownership, cadastre, permission and easement;
- To establish revolving capital enterprises related to the issues required for forestry services.
- To provide any prevocational and in-service training programmes necessary for the profession; to establish training institutions and social facilities, as well as schools to train personnel.
- To carry out any works regarding research, inventory, printing and publishing, advertising and projects related to its services, and to implement the approved ones.
- To purchase or rent any equipment, land, building and facility in order to carry out the services rapidly and efficiently and to ensure their maintenance and repair.
- To perform the similar tasks specified identified by the relevant legislation and the Ministry.

Ministry of Environment and Urbanization

Protected areas under the responsibility of the Ministry of Environment and Urbanization are Special Environmental Protection Areas and Natural Sites. One affiliated institution is General Directorate for Protection of Natural Assets.

Results

It is noteworthy that significant protected areas developments in Turkey have benefited from public awareness and typically in response to the prospect of nature, forest and wildlife enhancement. It is proved that protected areas seem to be in a steady increase considering the statistics in this regard.

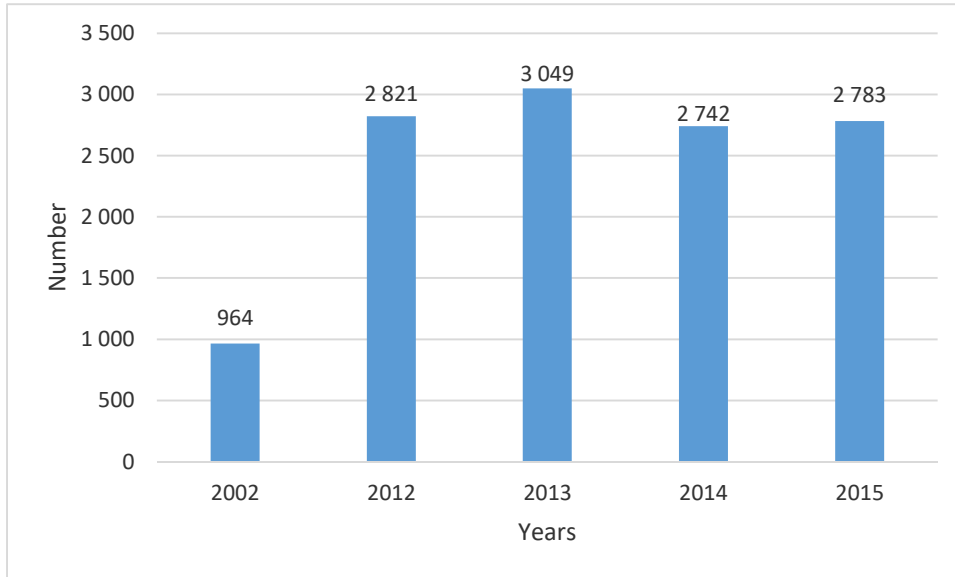


Figure 3 Number of protected areas in Turkey (DKMP, 2016a; DKMP, 2016h)

More concretely, General Directorate of Forestry and General Directorate of Nature Protection and National Parks within the Ministry of Forestry and Water Affairs are assigned responsibility to ensure that there are long-term plans in place for establishing systems of protected areas.

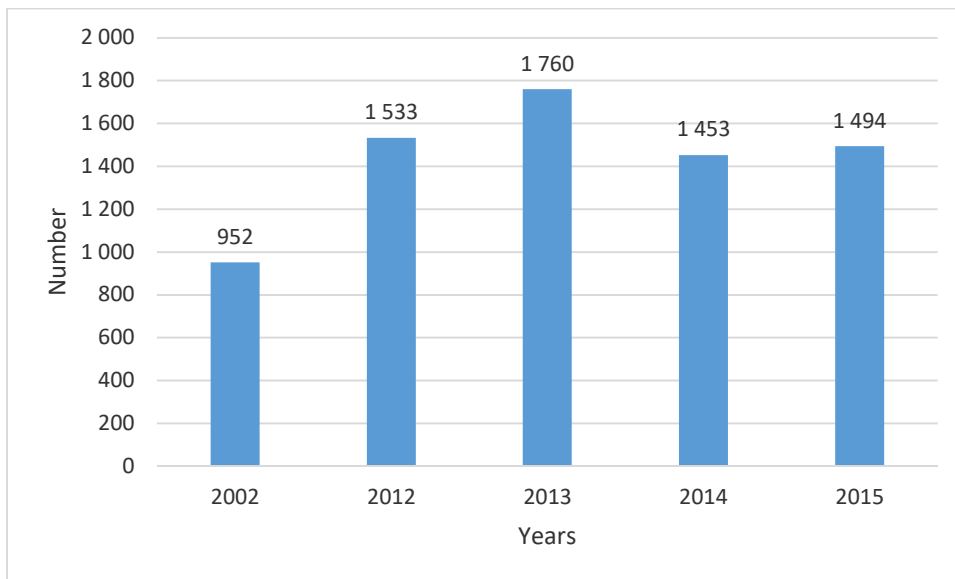


Figure 4 The Number of Protected Areas under the Responsibility of Ministry

of Forestry and Water Affairs (DKMP, 2016a; DKMP, 2016h)

A significant bundle of regulations addressing protected areas sets out guidelines for various activities, or establishes permit and approval schemes as well as prohibitions with respect to the conduct of visitors, right holders and businesses.

It is necessary to carry out required scientific studies and legislation arrangements in order to obtain qualified protected area system. A process that is associated with interest in climate change, biodiversity protection and wetlands has also been made at the national level. Because of that, at present, the effectiveness of the central government is unquestionable.

It is worth noting that the variety of approaches to protected areas governance as discussed above is acknowledged in the context of the Tenth Development Plan (2014-2018) objectives, as these are derived from the applicable legislative framework and the strategic responsibilities assigned to the Ministries within the overall framework of central government operations.

According to the Tenth Development Plan⁶ (2014-2018): Framework that directs environmental policy and implementation has advanced through preparation of basic strategy documents such as Climate Change Strategic Document and Biodiversity Strategy & Action Plan. Thereby, remarkable progress has been achieved on prevention of environmental pollution, improving environmental quality and sustainable management of natural resources, especially on control of emissions, *expansion of protected areas* and protection of biodiversity. Despite these achievements, pressure on environment caused by economic growth, population growth, and production and consumption patterns continues. Planning, implementing, monitoring and supervising in environmental and natural resources management should be enhanced. There is a need for removal of authority overlapping and strengthening of cooperation among institutions.

Policies in the Plan that will be implemented in the subject are summarized as follows:

- Uncertainties and inadequacies in duties, powers and responsibilities in environmental management will be resolved, supervising mechanisms will be strengthened; role of private sector, local administrations and NGO's will be increased.
- Practices towards improving environmental consciousness, especially protection of nature and support of sustainable consumption, will be promoted.

In the plan, the main goal is expressed as to increase environmental awareness and sensitivity, to protect the environment and to improve its quality in order to ensure that present and future generations benefit from scarce natural resources, while continuing economic and social progress.

In the Turkish National Forestry Programme⁷ in effect from 2004 to 2023, it is clearly stated and emphasized that the aims of the national programme are expressed as to ensure the proper management, protection and survival of forests; to increase public awareness about threats to forests; to support forest villagers and workers in forestry sector; to create mechanisms and organizational capacities to promote the sustainable forest management.

⁶The Tenth Development Plan

[http://www.mod.gov.tr/Lists/RecentPublications/Attachments/75/The%20Tenth%20Development%20Plan%20\(2014-2018\).pdf](http://www.mod.gov.tr/Lists/RecentPublications/Attachments/75/The%20Tenth%20Development%20Plan%20(2014-2018).pdf) [Date of Access: 01.04.2016].

⁷ The Turkish National Forestry Programme

http://www.ogm.gov.tr/ekutuphane/Dokumanlar/Ulusal_Ormancilik_Programi_2004_2023.pdf [Date of Access: 03.04.2016].

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COMPARATIVE REVIEW OF REGIONAL LAWS IN THE CONTEXT OF REGULATION OF NON-WOOD FOREST PRODUCTS IN BALKAN REGION

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Abstract

The regulative of the non-wood forest products (NWFPs) is in the context of various laws in forestry sector and out of it. These laws are, directly or indirectly, associated with this group of products, which represent organic and functional food. This paper presents the review analysis of current Serbian laws which mentioned NWFPs, compared to laws of selected countries in the region (Bosnia and Herzegovina, Montenegro, Slovenia and Macedonia). The comparison is performed at the level of the corresponding articles of the laws and other legal documents of selected countries in the region. A certain number of laws, which are in (in)direct connection to these products, have been identified. The **aim** of the research is to study the similarities and differences in the legal treatment of NWFPs, based on the analysis of the legal framework in this area. The **purpose** of this study is to provide information that would allow the provision of recommendations to improve the current situation in the area of regulations related to NWFPs. The **subjects** of the research are: laws and their articles (related to NWFPs). The methods used in this paper are: content analysis and comparison. Based on the research, identified similarities in the legislation of the countries are analysed relating to NWFPs, as well as opportunities for improvement in near future.

Key words: laws, NWFPs, comparison, region, Western Balkan.

Introduction

Regulations that directly regulate aspects of NWFPs collection and commercialization are scarce both in Serbia and in the region. In addition to the Law on forestry, NWFPs are mentioned in other laws, specifically in the laws of nature and the laws of Nature Protection (Keča et al., 2011). In the study laws and regulations related to NWFPs were compared. The comparison is made at the level of the corresponding articles of the laws and regulations of selected countries in the region that have similar regulations related to NWFPs (Serbia, Bosnia and Herzegovina, Montenegro, Slovenia and Macedonia). Countries of the region were chosen for comparison because of the policy of the European integration (Keča et al., 2014) that has been implemented in them. Bosnia and Herzegovina should obtain a candidate status for EU accession, Montenegro is granted the candidate status and began negotiations

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for accession, Serbia was granted the candidate status for accession and a date for launching EU accession negotiations, Macedonia acquired the candidate status and is waiting for the start of negotiations for the EU accession and Slovenia is a member of EU.

On the basis of established laws that have direct or indirect links to the NWFPs in Serbia, a comparison of the laws was performed in the selected countries, related to NWFP as well. Thus similarities are observed, as well as some differences between them.

Material and methods

In this paper the comparative methods are used. They are applied through the comparison of laws and regulations, which are directly or indirectly linked to NWFPs. By comparing (two copies of the same phenomenon, two homogeneous or heterogeneous phenomena, two processes in the past, present and future, in one or more defined spaces), we can determine whether they are identical, similar or whether there are differences between them (Miljević, 2007, Keča et al., 2015). Classic methods of reasoning used in this research are: analysis, synthesis, induction and deduction. For the study data collected from the relevant literature and websites of relevant organizations are used, such as: Federal Ministry of Agriculture, Water and Forestry (Bosnia and Herzegovina); Ministry of Agriculture and Rural Development (Montenegro); Ministry of Agriculture, Forestry and Water Management (Serbia); Ministry of Agriculture, Forestry and Water Management (Macedonia), Ministry of Agriculture and Forestry (Slovenia).

The **purpose** of this study is to provide information that would allow the provision of recommendations to improve the current situation in the area of regulations related to NWFPs. The subject of the research are laws and their articles related to NWFPs.

Results and discussion

Results are presented according to individual analysed countries and highlighted certain legislation related to NWFPs. Several main results are summarized in Table 1.

Table 1 Selected facts related to NWFPs from analysed laws

	BOSNIA AND HERZEGOVINA	MONTENEGRO	SERBIA	MACEDONIA	SLOVENIA
Terms used for NWFPs	Non-wood forest products	Non-wood forest products	Other forest products	Other forest products	Non-wood forest products (mushrooms, berries, fruits, edible nuts, herbs)
Competent ministry	Federal Ministry of water, agriculture and forestry	Ministry of agriculture forestry and water management	Ministry of Agriculture and Environmental Protection	Ministry of agriculture forestry and water management	Ministry of agriculture and environment
Training of collectors (predicted)	/	/	yes	/	yes
Report about made collection	yes	/	yes	/	yes
Fees for the use of NTFPs from state forests	7% from planned income	5% of market price	10% of established market price	15% of NWFPs price	
Allowed collection of all kinds of NWFPs for non-commercial use	1 kg	2 kg	/	1 kg	2 kg
Management of state forests	Cantonal Directorate of Forest	Directorate of Forest	PE "Srbijašume" PE "Vojvodinašume"	PE "Makedonijašume"	Slovenia forest service
Included in contents of planning documents of PE	yes	/	yes	/	yes
Penalties for traffic of NWFPs (for natural person)	102.26 € – 766.94 €	300 – 1,200 €	86.27 € – 431.37 €	3,500 – 4,000 €	
Penalties for traffic of NWFPs (for legal entity)	2,556.46 € – 5,112.92 €	1,200 – 10,000 €	862.74 € – 8,601.65 €	12,000 – 15,000 €	

Source: authors

Bosnia and Herzegovina

Laws, regulations and rulebooks relevant for NWFPs are: **Regulations on the cultivation, exploitation, collection and transport of forest products (2005/a)**: "Prescribes

the conditions for the cultivation of NWFPs, time and manner of collection and culture, purchase, issuance for placement..." (Article 1). Before collecting NWFPs, natural or legal person must have the approval of the forest-company, which defines the conditions and manner of collection of NWFPs.

Law on National Parks (2010/a) states that: "Forbidden uncontrolled collection of medicinal and aromatic herbs, mushrooms, and other forest fruits in the whole area of the national park" (Article 11, §3). "The minister responsible for environmental protection adopts the rulebook on internal order in the national park. This Regulation establishes the terms and conditions of use for hunting and fishing fauna, pastures, medicinal herbs mushrooms and berries" (Article 14, §1 and 2).

Draft Law on Forests (2011/a): "NWFPs covered by the law include: flowers, seeds, fruits, berries and other fruits, bark, root, fruit and pinecones and other vegetation within the forest, medicinal, aromatic and edible herbs and other plants and its parts, mushrooms, vegetable juice and resin, honey, grass and pasture cover" (Article 4, §22). "Forest users are obliged to annually allocate compensation in the amount of 2% of the total revenue generated by the sale of NWFPs" (Article 11, §6). Federal Minister adopts Rulebook which regulates conditions for breeding, utilization, collection and trade of NWFPs" (Article 39, §8).

"Federal Minister gives the regulation which prescribes the conditions for cultivation, exploitation, collection and transport of NWFPs (Article 39, §8). "Without the permission of the user or owner of private forests the collection of NWFPs is prohibited in quantities over 1 kg" (Article 44, §2). Fees for the use of state forests are 7% of the planned revenue from the sale of NWFPs" (Article 55, §1). "Financial penalty will be imposed on each person who puts NWFPs in contravention of the provisions of the law" (Article 87, §9, Article 88, §7).

Nature Protection Act (2013/a). Provisions of this law are not directly related to NWFPs. This law prohibits reducing the number of population of wild species and subspecies of plants, fungi and animals" (Article 70). "For the collection of plants, fungi and their parts (category of protected species and subspecies), the purpose of processing, trade and other business, it is necessary to get the permission of the Ministry of Nature Protection (Article 75).

Montenegro

Laws, regulations and rulebooks relevant for NWFPs are: **Nature Protection Act (2008/b).** "The manner and conditions of collection, use and trade, as well as the list of unprotected wild species of animals, plants and fungi that are used for commercial purposes is determined by the Ministry, in cooperation with the Ministry responsible for agriculture, forestry and water management" (Article 81).

Rulebook for traffic requirements and the manner of treating protected wild species during transport (2008/c). This rulebook regulates closer conditions for trade of

protected wild species of plants, animals and fungi, as well as the conduct and content of the register of issued licenses (Article 1).

Law on National Parks (2009/a). In this law it is "... forbidden to pick, collect, destroy, cut, excavate, keep and move protected wild species of plants and fungi" (Article 16, §1).

Law of Forest (2010/b). "NWFPs covered by this law include: flowers, seeds, fruits, needles and leaves of forest trees, shrubs, grasses, mosses, ferns, rustle, peat and humus, medicinal, aromatic and edible herbs, wild berries and mushrooms" (Article 4, §11). "NWFPs from state forests can be used for commercial and non-commercial purposes in accordance with the program of forest management in a way that does not endanger ecosystems and forest functions" (Article 63, §1). "Commercial use of NWFPs includes their collection for distribution on the basis of contracts" (Article 63, §2). "Non-commercial use of NWFPs is collecting the waste in quantities of daily needs of individuals, or less than 2 kg of edible forest products per day" (Article 63, §3). "For the commercial use of NWFPs compensation should be paid in the amount of 5% of the market price of the purchased products per kg." "Financial penalty will be imposed on each person who puts NWFPs in contravention of the provisions of the law" (Article 89, §1 and Article 90 §1).

In Montenegro, laws related to NWFPs include prohibiting the collection of protected species and penalties for violation of laws prohibiting the collection of protected species. In Bosnia and Herzegovina as well as in Montenegro the term "non-wood forest products is used".

Serbia

Laws, regulations and rulebooks relevant to the NWFPs are:

Law on Environmental Protection (2009/b) states that: "...certain wild flora and fauna, development forms and parts are collected and placed on the market in the manner and under the conditions laid down in the license issued by the Ministry after obtaining the opinion of the organization competent for nature Protection" (Article 27). "Protected wild fungi, lichen, plants, animals and their parts, can be collected for the purpose of processing trade, cross-border traffic, as well as plantation farming on the basis of permits issued by the Ministry in accordance with the law" (Article 76) .

Nature Protection Act (2009/c). In this law it is forbidden: to use and destroy strictly protected species of plants, animals and fungi and their habitats. It is also forbidden to destroy individual plants and fungi and their life forms, read, collect, cut or excavate and eradicate (Article 74).

Law of Forest (2010/c). Forest management plans include a project of utilization of other forest products"(Article 20). "The project of utilization of other forest products contains: location, total reserves, species, quantity, time and manner of use, as well as the value of the

product or the amount and type of work to revitalize the sites" (Article 32, §2). "In the right of utilization of other forest products and functions in state-owned forests the user has priority. The collection of other forest products (forest fruits, medicinal and other plants, the use of stone, sand, gravel, topsoil, as well as beekeeping, etc.) can be done with the permission of the user i.e. forest owners, in accordance with the project of utilization of other forest products" (Article 62). Financial penalty will be imposed on each person who puts NWFPs in contravention of the provisions of the law (Article 112, §2 and Article 113, §3).

Regulation on putting under control the use and trade of wild flora and fauna (2010/d). "To determine the wild species of flora, fauna and fungi, whose collection from natural habitats, use and place on the market under control and determine the amount of compensation for their use" (Article 1)."Permission for collection of protected species by a legal entity or entrepreneur, on the basis of the vacancy implemented by the Ministry" (Article 15). An entrepreneur who deals with the collection of protected species has an obligation to organize vocational training for collectors, and test their knowledge each year. The fee for the collection of protected species for commercial purposes is 10% of fixed annual prices.

The collection of protected species in private forests can be done only with the permission of the forest owner, together with the permission of the Ministry (Keča et al., 2011).

Unlike Bosnia and Montenegro, in Serbia non-wood forest products are named "other forest products". In all analyzed countries there is a certain amount of NWFPs products that can be collected for non-commercial use, except in Serbia (Keča and Marčeta, 2014). It is also recommended to determine the quantity of NWFPs which may be collected for non-commercial use. As in other countries and in Serbia, laws prohibit harvesting, collecting and destroying protected species of NWFPs.

Macedonia

Laws, regulations and rulebooks relevant to the NWFPs are: **Nature Protection Act (2004/a)**. There is no direct information about the NWFP. This law states "... collection of prohibited, endangered, endemic species of plants, fungi and their parts is allowed only with the prior approval of the minister responsible for nature protection" (Article 23, §1). "It is forbidden to collect wild plants, fungi and animals in nature reserves" (Article 71, §4). "Protected wild plants, fungi and animals are classified in the red book" (Article 34).

Law on the Environment (2005/b). There is no direct information about the NWFPs. There is highlighted paying for the collection and export of plants, branches and other parts of plants, collection and export of molluscs with and without shells (Article 163, §3).

Law on Forests in Macedonia (2011/c). "NWFPs are defined as: other forest products and mineral products of biological origin of forests and forest lands, including: mosses, ferns and lichens, grass, flowers, medicinal aromatic and edible plants and other plant

parts (stem, bark, leaves, fruits, abnormal growths, fungi), resins, juices of plants, grass with meadow and forest bare lands, deer and other wild animals living in the forest, humus and peat, sand and stone" (Article 12, §41a). Public Enterprise (PE) "Macedonian Forests" manages about 90% of state forests in Macedonia. Macedonia has 10 forest sectors, including the Department for the use of NWFPs. PE "Macedonian Forests" has a price list for the collection of NWFPs where you pay 15% of the price of NWFPs (Nedanovska, 2012). "Without the permission of the owner or forest user the collection of NWFPs in quantities over 1 kg is forbidden" (Article 13, §2). "The types of NWFPs, their collection and use is prescribed by the Minister who manages the state body responsible for forestry" (Article 72, §7). "The use of NWFP that are protected, the use and collection of NWFPs can be done only with a special program. The persons who manage the forests are obliged to keep records of the number of issued approvals, the type and amount of collected NWFPs" (Article 72, §1, 2 and 4). Financial penalty will be imposed on each person who puts NWFPs in contravention of the provisions of the law (Article 103, §7 and Article 104, §13).

In Macedonia as in other countries, the analyzed laws related to NWFPs include prohibiting of collection, harvesting and destruction of NWFPs, as well as financial penalty prescribed by these laws. In Macedonia the term "other forest products" is used, which is somewhat similar to Serbia, where this term is "other forest products".

In Serbia there is no information on permitted amounts of NWFPs which may be collected for non-commercial use, while in Macedonia this quantity is 1 kg. In Serbia it is recommended to determine the allowed amount of NWFPs for non-commercial use. NWFPs are often an ignored and invisible component of forestry and other policies. For many countries, of paramount importance is the recognition of NWFPs as a sector which needs particular policies integrated with general forestry and other policies (2013/b).

Slovenia

Laws, regulations and rulebooks relevant for NWFPs are: Act on forests (2013/c), Rules on the protection of forests (2009), Decree on the protection of wild fungi 2011 (2011/b), Rules on the cadastre of bee pastures, bee pasture management, marketing of bees and honey flow forecasting programme (2010/e), Wild Game and Hunting Act (2008/d) (Bouriaud L., Nichiforel L., 2013).

Act on forest (2013). Art. 40 describe criteria and circumstances that should be met for grazing in forests to be allowed. It should be defined in the silvicultural plan how and where grazing can be performed and which other roles of forest should not be jeopardized by doing so. The area should be fenced; grazing must not cause soil erosion; and should not affect natural regeneration where old growth stands are to be regenerated. Silvicultural plans are elaborated by Slovenia Forest Service (hereafter SFS).

Art. 41 defines criteria that rule whether collecting forest tree seeds and other forest goods deteriorates forests or not. Collecting litter should not be carried out more than once in

10-year period; only in areas where it was traditionally already present; not in areas of torrential waters. Resin and sap can be collected on trees marked for felling or otherwise assigned for this purpose by SFS. Tree fruits, cones and seeds should be collected in a way that does not jeopardize regeneration. Tree crown surface should not be decreased by more than 30%; when utilizing bushes at least 30% of live shoots should remain; by picking herbs/mosses, no more than 30/20% of area should be harvested.

Art. 43 defines recreational picking of forest goods. Each forest visitor is allowed to collect no more than 2 kg of mushrooms (except for those prohibited for picking by the decree that regulates protection of wild fungi), fruits, mosses and chestnut; and 1 kg of herbs (except for those prohibited for picking by the decree that regulates protection of protected plant species) daily for subsistence purposes in recreational sense.

Art. 24 of Act on forests provides legal basis for fencing the forest. It can be done for silvicultural purposes (preventing danger from regeneration); protection water catchments; natural protected areas; cultural heritage and scientific-research objects. Approval for fencing is given by the Slovenia forest Service. Act on forests also gives legal basis for limiting public access to forests that are used for production of NWFP.

The Law on Forests (1993) guarantees free public access to forests (Article 5). However, forest owners have the right to close certain forest areas to public access for reasons of protecting regeneration, wildlife protection and in order to protect forest ecosystems in general. Forest roads can be used publicly, but at the responsibility of the users (Article 39). Driving off forest roads is only allowed in special cases and to a much limited extent.

Decree on the protection of wild fungi (2011/b): The decree in general sets prohibitions for picking, possession, transportation, selling and trading of mushrooms protected by the decree, except under circumstances (permissions) also defined in the decree. The decree specifies how permissions for picking protected species of fungi could be obtained and which information on the picker should be provided to the ministry, dealing with natural environment. Art. 1 defines that wild fungi in this decree are species of higher fungi from the phylum of *Basidiomycota* and *Ascomycota* that form visible regeneration structures – fruiting bodies from mycelium. Art. 6 sets criteria under which the ministry can approve the removal of protected fungi under this decree, if there are no other options and survival of those fungi will not be jeopardized, for reasons of: protection of animal and plant species and protection of habitat types, prevention of damages to crops, livestock, forests, fishing areas and waters and other assets, assuring the health and security of people, research, education, renewal of populations of protected fungi; additional introduction; reintroduction; artificial regeneration. Permission must include information on actors, means, spatial and temporal scope of picking, the species of fungi and allowable amount to harvest. If one wishes to harvest and sell more than 2 kg per person a day, he/she has to: register a business as a sole trader or limited liability company (LLC) or as a personal supplementary activity of gathering and selling forest fruits and herbs⁴ in a local administrative unit, obtain an approval from the forest owner, submit a report on income every three months to the tax administration (income is

⁴Prevention of Undeclared Work and Employment Act (Ur.l. RS st. 12/2007)

taxed at 20% rate), and issue an invoice. Art. 7 states that an individual can sell only the amount of mushrooms, that he/she himself can harvest alone or together with family members he/she lives within a common household. An individual can sell mushrooms also in places that are designated for selling food, in accordance with the rules. Art. 8 states that the purchaser, according to this decree, can be a natural or a legal person, who is doing business by purchasing mushrooms within his/her registered business activity (hereafter: purchaser). Purchaser is obliged to keep records of purchased mushrooms, which holds information on species and amount of mushrooms, place and date of purchase. Purchaser is obliged to submit a summary of those records to the Ministry of environment and spatial planning* by the 31st of December each year. The summary should contain information on species and amount of mushrooms, spot where purchase took place according to months of the year and must be equipped with a stamp of the purchaser.

Forestry inspectorate in collaboration with local police forces is controlling the “max 2 kg of mushrooms” provision more intensively.

As an aside-information: there is an ongoing debate on introduction of permits for picking mushrooms. It could cover recreational and commercial picking. The parties are the Ministry of agriculture and environment, Slovenia Forest Service and Slovenian Forest Owners Association.

Conclusions

Based on the analysis of laws and legal regulations related to the NWFP, corresponding conclusions are:

- in the forest laws of the analyzed countries, the term "non-wood forest products" (NWFPs) is used in Bosnia and Herzegovina and Montenegro, while the term "other forest products" is used in Serbia and "secondary forest products" in Macedonia;
- the amounts allowed for collection of NWFPs for commercial use in Bosnia and Herzegovina and Macedonia are 1 kg and 2 kg in Montenegro, while in Serbia there is no information about the allowed amount;
- competent ministries are the same for all countries (Ministry of Agriculture, Forestry and Water Management);
 - permits for wild collection are issued to owners or users of forests;
- financial penalty for traffic NWFPs for individuals are from € 86.27 in Serbia and 4,000 € in Macedonia, and also for legal persons is the lowest in Serbia € 862.74 and the highest in Macedonia € 15,000.

In the analyzed countries, i.e. in Laws on Forests NWFPs are an integral part of these laws. It is necessary in the future to give greater importance to these products and make special rules, which would include every detail related to NWFP.

It is recommended to estimate to what extent the current legal framework is directed to the values of NWFPs. This should include an assessment of the merits of the issue of permits, which would provide better information on the scope of the collection, economic contributions, and other aspects of the sector.

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SURVIVAL OF FORESTS IN THE REPUBLIC OF SERBIA AS A CHALLENGE OF THE MODERN WORLD

NATAŠA TOMIĆ-PETROVIĆ¹

In the 20th century Serbia was in fifth place in Europe regarding the deciduous and periwinkle forest areas. Today, in the 21st century the world's forests are rapidly disappearing. Felling of trees presents the serious threat for men's health and also for the survival of plants and animals, because the existing micro climate is changing. United Nations informed the public that almost 90% of disasters that happened in the previous two decades in the world were caused by climate changes.

Urban areas are spreading, many roads are being constructed and with the increase of population it is evident that we are also facing the serious lack of water. In the journal "Science Advances" authors of the study from the University of Twente (Holland) indicated a decrease in the amount of groundwater, as well as the level of the lakes, some of which are drying up. For example Poopo Lake, the second largest lake in Bolivia (surface of 27,700 square meters), which was located at a height of 3,680 meters in the Andes, has dried up due to global warming, and pollution produced by the surrounding tin mines. This is an environmental disaster and the residents from the surrounding areas who were living from fishing are threatened and are now forced to leave these areas.

The World Health Organization on a global level estimated that El Nino² may endanger 60 million people in the world. World innovation by designer from the Netherlands Dan Rosegarden is the ecological tower, a machine that uses green energy of the wind and patented ionic technology for production of so much needed fresh air. The public environmental project, Seven-story "smog" tower, i.e. the free vacuum cleaner of smog³, will be constructed in Rotterdam.

In this paper author represents the situation with forests in the Republic of Serbia with the aim that Belgrade wins the bid for the green capital of Europe⁴. We still remember large floods that happened in my country in 2014 and that they repeated again in March 2016. Unfortunately, in Serbia clearing the forests were often done without a plan, houses were built in the areas where they should not be built.

Strategy of forestry development ("Official Gazette of the Republic of Serbia", number 59/2006.) was adopted in 2006 with basic aim of preservation and amelioration of forests state and development of forestry as an economic branch. The Law on forests ("Official Gazette RS" no. 30/10, 93/12, 89/15) provides for conditions for sustainable forest and forest land management as the good of general interest, in the manner and to the extent that permanently maintains and improves their productivity, biodiversity, regeneration capacity and vitality and

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² El Nino is a global atmospheric-oceanic phenomenon, which is caused by fluctuations in wind directions and water temperature in the tropical part of the Pacific Ocean.

³ It has the ability to purify for one hour 30,000 cubic meters of air. It is mainly intended for public parks.

⁴ Today at the meeting "Cities of the Future" Ljubljana is declared the green capital of Europe.

enhances their potential to mitigate climate change, as well as their economic, ecological and social functions, and that it does not cause damage to the surrounding ecosystems. (see Article 3 of the Law).

According to Article 10 of this Law, the change of use of forests and forest land can be done:

- 1) when it is specifically provided for by the development plan of forest areas;
- 2) if it is required by the public interest established by special law or act of the Government;
- 3) for the construction of facilities for the protection of people and property from natural disasters and national defence;
- 4) in the process of land consolidation and reparation of agricultural land and forests;
- 5) for the construction of economic or residential buildings of forest owners in the area to 10 ha;
- 6) for the construction of facilities for the use of other renewable energy sources of small capacity (small power plants and other similar facilities, in terms of legislation in the energy sector) and exploitation of mineral resources, if the area of forests and forest land for these purposes is less than 15 ha. The change of use of forests and forest land from items 4) -6) of this article shall be made with the consent of the Ministry.

In accordance with Article 15. of the Law on forests, monitoring the impact of cross-border air pollution is a system of continuous monitoring and analysis of the overall situation of forests ecosystems caused by the influence of cross-border air pollution, in accordance with internationally accepted methodology.

In the spring of 2016, in April, "Zelenilo" performs spring planting of trees in the alley of the free green areas and in urban forests. During this year 2,878 new trees will be planted in a constant effort to increase the number of trees in Belgrade.⁵ The most common types of trees in green spaces are maple, sycamore, horse chestnut, linden and ash, and a smaller number cherry plum. This year „Lepo polje Nursery“, located on about 15 hectares is exporting our plants to many middle and east European countries – for many years they are cooperating with Institute of Forestry in Belgrade and with Serbian Ministry of Agriculture, Forestry and Water Management. The Institute of Forestry brings their students and cooperatives to their practical training, lessons and studies at this nursery. Satisfaction in work is creating the perfect result, Aristotle already wrote.

Today, in our capital city Belgrade we have been working on the improvement the identity of capital, as well as mobility and ecology. The goal is to reduce pollution levels in Belgrade and throughout the country, improving and protecting environment, especially forests, contributing to the quality of life. New Belgrade has set high standards for all municipalities in Serbia when taking care of citizens and protection of the environment in which they live. On the 21st of March, the World's Forest Day in our capital giving nursery plants of conifers to residents became tradition.

In Vojvodina the largest mountain is Fruška⁶ Gora, and the freshness is a result of the dense forests and the river Danube. In our country Sombor is the town with the greenest areas with 17,000 trees and 150,000 square meters of parks. Nature reserve "Imperial Bar" is home to more than 240 species of birds.

⁵ Most of the new trees will be planted in rows of trees in New Belgrade - 198.

⁶ "Fruška" comes from the German word for „fresh“.

Kopaonik is the largest mountain⁷ massif in Serbia, running north to south for a length of 80 kilometres. Since 1981, Kopaonik has been a National Park with over 1,500 plant species out of which 91 are endemic and 82 sub-endemic species. Law on National Parks ("Official Gazette" no. 84/2015) adopted on 14th of October 2015 regulates the goals, values, boundaries, protection, management and use of national parks "Fruška gora", "Đerdap"⁸, "Tara"⁹, "Kopaonik" and "Šar planina"¹⁰.

In the southwest of Serbia there is Divčibare, mountain /Mt./ plateau rich in forests and water and the central part of Mt. Maljen. Divčibare is surrounded by the Povlen and Suvobor mountains.

The Homolje Mountain Range stretches southwest of the city of Majdanpek, where there are dense, centuries-old forests, caves and the gold-bearing river Pek.

The Rudnik mountain has been proclaimed an "air spa" since 1922, thanks to its advantageous climatic conditions. The practically untouched nature of Golija, a biosphere reserve, is under the protection of UNESCO. But Serbia's very first site included on UNESCO's World Heritage list was the complex around Stari Ras, officially listed as Stari Ras¹¹ and Sopoćani.

Conclusion

It is necessary to act responsibly towards the environment, towards ourselves and towards the others. The world will get a first wooden skyscraper (the basic concept is the ecological approach, and the building will be 84 meters high), which will be built in Vienna by 2018.

It is obvious that the world's forests are disappearing. The actual state of pollution represents the real danger for man and ecosystem and legislator limits that risk by prescribing legal norms to a bearable level. Therefore we have to save every tree as if it was the last. However, Serbia is one of the ecologically preserved places in Europe. Thus, nowadays environmentalist groups are preparing a unique paddling tour of threatened Balkan rivers, too. Kayakers front campaign to save Balkan rivers.¹²

Our goal is to reduce pollution levels in Belgrade and throughout the whole country, improving and protecting environment, especially forests, contributing to the quality of life. We hope that our capital town will be selected for the green capital of Europe.

⁷ In the mountain ridge there are mixed and evergreen forests.

⁸ This national park with the Djerdap Gorge the longest and the largest gorge in Europe, whose "Iron Gate" connects two important cultural and economic parts of Europe.

⁹ 80% of this national park is covered by mixed forests of spruce, beech and fir tree. There is Pančić Spruce (*Picea omorica*), world endemic species, growing on Tara mountain.

¹⁰ The national park Šar Mountain is situated on the territory of the Autonomous Province of Kosovo and Metohija.

¹¹ Near the Serbian town Novi Pazar a medieval complex of monuments is located, with favourable position, situated in an area where medieval roads along east–west and north-south routes converged.

¹² Wild Serbia's kayak season lasts until the second half of October.

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ANNEX I – Presentation of Liabilities resulting from Public Access to Forests in Austria

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Programme

- Recreation in Austrian forests & opening forests for public access
- Public access to forests
- Fault liability in Austrian law
- Fault liability in forests
- Fault liability on ways and roads

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Recreation in Austrian forests

- „back to nature“ movement since 1800
- based on: natural philosophy and romanticism
- and: educational efforts by „father of gymnastics“ Jahn
- no mass phenomenon, due to lack of days off for labour force
- exclusive usage by high & middle classes

Recreation in Austrian forests

Opening forests for public access

- before 1975 (prior to new Forest Code 1975):
access to forests **prohibited**, forest owner entitled to hinder anybody to enter his forest (§ 354 ABGB)
- **no usucaption** of access rights since Reichs-ForstG 1852 (usucaption = acquiring rights by uninterrupted possession of it for a definite period, 30 /40 years)

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Recreation in Austrian forests

Opening forests for public access

- since 1975 (new Forest Code 1975): general opening of forests in Austria for public access
- = everyman's right to enter forests (by stepping into them), for recreational purposes only, including a stay of limited duration (§ 33 Abs. 1)
- legal limitation of private property right => interpretation is very narrow, everything that's not expressly permitted (by law or owner's consent) is prohibited

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Public access to forests

everyman's right to enter forests for recreational purposes

- *Everyman* = *everywoman* = *everychild* -- but **not everydog!** „Everyman“ relates to persons, exclusively. When it comes to animals, provisions of the right in rem apply =>
- provision is not comprising dogs (or any other domestic animals)!

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Public access to forests

everyman's right to **enter** forests for recreational purposes

legal limitations (§ 33 Abs. 2):

- exclusion and demarcation by **authority** (forest fires, forest pests combating, etc.)
- exclusion and demarcation by **forest owner** (felling/skidding/storage sites, construction sites, areas of wind/snow broken trees, etc.)
- exclusion by **law**, no demarcation (forest regeneration sites below 3m mean tree height)

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Public access to forests

everyman's right to **enter** forests for recreational purposes

explicitly **not included** (§ 33 Abs. 3):

- staying overnight, camping, driving or riding vehicles, horse-riding, establishing permanent cross country skiing tracks (prohibited, but permissible with consent of forest owner)
- skiing in forests closer than 0,5 kms to ski lifts, groomed ski slopes and ski routes

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Public access to forests

everyman's right to enter forests for **recreational purposes**

- issue of motivation
- monetary considerations
- group sizes and quantity of visitors
- damages to the forest sites and stands

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Forest political priority

- increasing demands for recreation in forests limit the usability of forests for their owners (e.g., open access for mountain bikers to forests and forest roads)
- while, in case of accidents - **liability of forest owners under civil and criminal law**

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Fault liability in Austrian law

- two aspects of fault liability: intention and negligence
- *intentional tort* = plan to commit a crime and cause harm, and not to care about
- *unintentional tort* = ordinary or gross negligence - the failure to exercise that degree of care that, in the circumstances, the law requires for the protection of other persons or those interests of other persons that may be injuriously affected by the want of such care (ordinary = could happen to anybody; gross = extraordinary carelessness)

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Fault liability in forests

Special provisions on forest operations

Damages in the context of forest operations, casualty is

- person **involved** in operations ⇒ perpetrator of accident is liable also in case of **ordinary negligence**;
- person **not involved** in operations ⇒ perpetrator of accident is liable also in case of **intention or gross negligence**;
- person **not involved** in operations & accident occurs in properly enclosed area ⇒ perpetrator of accident is liable in case of **intention** only!

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Fault liability in forests

Special provisions on forest operations

- proper enclosure of forest operations area
- according to the 1989 Regulation on „Signs to be used in forests“
- „timely limited forest enclosure“



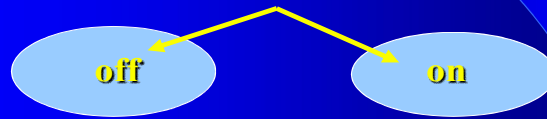
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General fault liability in forests

Liability for damages which result from inadequate condition of forests (= trees)



forest roads or paths/tracks specifically designated to public use

General fault liability

paths/tracks are assumed to be specifically designated to public use, as soon as forest owner

- applies specific signs or marks himself, or
- tacitly allows application of signs or marks

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General fault liability in forests

Damages resulting from inadequate condition of forests (=trees) **away from** forest roads or paths/tracks specifically designated to public use

→ **no liability** of forest owner or his/her representatives (incl. forest labour etc.).

General fault liability in forests

Forest owner **not obliged**

- to refrain from activities in his forest which hamper public access, or
- to make arrangements for easier access or to secure public access.

Forest owner **not entitled** to create or maintain unsecured danger spots (pitfalls, leghold traps, ...)

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General fault liability in forests

Damages resulting from inadequate condition of forests (=trees) **on forest roads or paths/tracks specifically designated to public use**

—————> **liability of forest owner**

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Across Austria, **40,4 %** of trees in forests display damages relevant to constitute liability (Source: Austrian Forest Inventory 2007-2009)

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Fault liability on ways and roads

- holder of way/road liable to user for damages resulting from an **inadequate condition** of his way/road
- **holder of way/road** is the person who decides on measures of control and maintainance
- liability only in case of **intention or gross negligence**

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A photograph of bare tree branches against a grey, overcast sky, serving as the background for the central text.

Thank You for Your Attention!

Peter Herbst

17th IUFRO Legal Aspects of European Forest Sustainable Development
Prague, Czech Republic, May 18 – 20, 2016

ANNEX II: Agenda of the 17th International Symposium on Legal Aspects of European Forest Sustainable Development



IUFRO Division 9: Forest Policy and Economics
Research Group 9.06.00 Forest Law and Environmental Legislation

Prague, Czech Republic
 May 18 – 20, 2016

Programme Proposal and Organisational Management (version 15/05/2016)

Tuesday 17. 05. 2016	Arrival of participants Accommodation Hotel Galaxie	Individually during the day	Dinner of participants according to their own choice
Wednesday 18. 05. 2016	Symposium Presentations of the participants	8:30 – 9:00 Registration 9:00 – 9:30 Welcome of the participants 9:30 – 12:00 Presentations and discussion (including coffee break) 12:00 – 13:30 lunch 13:30 – 17:00 Presentations and discussion (including coffee break) 19:00 – 21:00 Welcome dinner (St. Klara Vineyard) 21:00 – 21:30 Transfer from the St. Klara Vineyard to the ferry and bus stop	Meeting for the departure to the symposium venue at 8:30 in the hotel lobby Meeting for the departure for dinner at 18:15 in front of the Hotel Galaxie
Thursday 19. 05. 2016	Symposium Presentations of the participants	9:00 – 12:00 Presentations and discussion (including coffee break) 12:00 – 13:30 lunch	

		<p>13:30 – 15:00 Presentations and discussion</p> <p>18:30 – 20:00 Guided Tour of Hradčany and Malá Strana (Prague historical centre) and Petřín gardens</p> <p>20:00 – 22:30 Dinner (Nebozízek Restaurant, Prague)</p>	<p>Meeting for the departure for dinner at 17:30 in front of the Hotel Galaxie</p>
<p>Friday 20. 5. 2016</p>	<p>Field trip to the University Forest Enterprise Kostelec nad Černými lesy and Kurná Hora</p>	<p>8:00 Departure</p> <p>9:30 – 13:00 Excursion Walking tour on a red tourist path in NNR Voděradské bučiny to Jevanský Lake dam, tree nursery, sawmill</p> <p>13:30 – 14:30 Lunch</p> <p>14:30 – 15:10 Transfer to Kutná Hora</p> <p>16:00 Tour of the historical silver mine</p> <p>17:30 Tour of the St. Barbara Cathedral</p> <p>18:00 – 20:00 return to Prague</p>	<p>Meeting for the departure for field trip at 8:00 in front of the Hotel Galaxie</p>
<p>Saturday 21. 05. 2016</p>	<p>Departure of participants</p>	<p>Individually during the day</p>	

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