IUFRO DIVISION 9, FOREST POLICY AND ECONOMICS

RESEARCH GROUP 9.06.00: FOREST LAW AND ENVIRONMENTAL LEGISLATION

Legal Aspects of European Forest Sustainable Development

Proceedings of the 16th International

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Legal Aspects of European Forest Sustainable Development

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Editors: Ioan Vasile Abrudan, Rastislav Sulek, Bogdan Popa

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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, not only, but in particular such with economies in transition. 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 this 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.

Starting from 1998, the former IUFRO 6.13.00, now 9.06.00 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 XXIst 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), and 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 XXIVth IUFRO World Congress in Salt Lake City, USA, in October 2014.

On the occasion of the 16th International Symposium on “Legal Aspects of European Forest Sustainable Development” in Brasov, thirty-two researchers and practitioners originating from twenty countries pre-registered to attend this meeting and finally sixteen of them used

that unique opportunity to get acquainted, involved and familiar with the new legal situation mainly in European forests, but also were profiting from the presence of participants from across the world, including Tajikistan and Japan.

Except o the introductory sessions, ten presentations on eight countries were offered to the audience. Moreover, numerous discussions on a broad range of topic were held, especially in the area of strategic objectives of forest management from the point of view either of the politicians or the practitioners. Special attention was devoted to the issues of institutional and organisational framework for sustainable forest management and policy / legal tools needed in order to implement the appropriate sustainable forest management.

The part of the symposium was also devoted to the remembrance of Professor em. Dr. Dr. h.c. mult. Franz Schmithüsen, professor of forest policy and forest economics and Honorary Member of IUFRO, the founder and long-standing member of this group, who passed away earlier in 2015.

The symposium was kindly hosted by the Transilvania University of Brasov and supported by the co-host organisation, the Forest Research and Management Institute – Moldsilva, Chisinau, Moldova. The meeting was organized by Ioan Vasile Abrudan, rector of the Transilvania University of Brasov together with Bogdan Popa of The Faculty of Silviculture and Forest Engineering and their respective staff at the Transilvania University of Brasov, as well as Rastislav Sulek and Peter Herbst (IUFRO 9.06.00).

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Rastislav Šulek, Coordinator
Peter Herbst, Deputy Coordinator
IUFRO Forest Law and Environmental Legislation, 9.06.00

Remembrance of Franz Schmithüsen

Professor em. Dr. Dr. h.c. mult. Franz Schmithüsen, professor of forest policy and forest economics who formed an entire generation of forestry experts, and Honorary Member of IUFRO, passed away in Zurich on April 14, 2015 at the age of 75.

Franz Schmithüsen was born in Germany in 1940. He studied forest sciences in Freiburg in Breisgau, Germany and in Vancouver, British Columbia, and received his doctorate in technical sciences in 1969 from ETH Zurich, with a study on the usage rights to forest resources. In 1975 he earned his title as a professor at the Faculty of Forestry in Freiburg, in the specialist areas of forest economics and politics.

In the subsequent years, he was strongly committed to forestry practice. From 1967 to 1984 he pursued a career as a government official in the German forest service and held various positions in the State Forest Administration, amongst other things as Head of the Forestry Office and Forestry Director of Baden-Württemberg. In the period between 1970 and 1984 he already started his international and consultancy activities with FAO and the World Bank and later on also with ICRAF, IPF and EFI. In 1984 he was appointed Professor of Forest Policy and Forestry Economy at the ETH where he oversaw the Professorship for Forest Policy and Forest Economics until retiring in 2005.

The integration of social and natural sciences was a particular concern for him. In research and teaching, he attached particular importance to a comprehensive view of the varied demands of humans on the forest and landscape. Together with his group at the ETH, he made a major contribution both nationally and internationally to research the forest and landscape in a social context as well as the professionalization and optimisation of the management of the forest as a resource. He also focused on empirical social research on public attitudes and perceptions. His scientific achievements were, amongst other things, recognised by honorary doctor's titles of the Universities of Prague and Thessaloniki. As a member of numerous committees, he was actively involved in designing the forest policies of various countries. He also made a major contribution to developing ETH Zurich as Head of the Institute for Forest and Wood Research or of the Department for Forest and Wood Research as well as a delegate of the President for the Election of Professors. With his communication skills, his command of several languages, his optimism and his comprehensive worldview, he managed to find a tenable solution for all parties involved even in the event of seemingly irresolvable conflicts. For instance, he made a major contribution to the successful merger of the then departments of Environmental Natural Sciences and Forestry.

His research activities focused on policy conditions for sustainable forest management, developments in forest law and public administrations, and on private utilization rights

created also the basis for his research work in IUFRO. He started in 1984 as Coordinator of the newly founded Unit on Forest Law in a Subject Group of Division 4, which later on became Research Group 6.13.00, now 9.06.00, titled Forest Law and Environmental Legislation.

In 1984, Franz Schmithüsen began to publish conference proceedings, and started a series of research proceedings and new publications such as the IUFRO World Series, the Union‘s most important publication series, in 1990. Up to now, 32 volumes have already been published. In his Unit 6.13.00, he initiated in 1999 a series of symposia focusing on forest legislation in countries with economies in transition. Now, the sixteenth International Symposium on Legal Aspects of European Forest Sustainable Development is being held. Fifteen Volumes of Proceedings were published till this day, the first 7 were edited or co-edited by Franz Schmithüsen.

Franz Schmithüsen served on the IUFRO Executive Board as the Treasurer of the Union between the years of 1987 and 1995. He reorganized, modernized and consolidated the finances and the financial management of IUFRO. He also promoted the reorganization of the Divisions 4 and 6 and contributed to the development of Task Forces. For his outstanding contributions to IUFRO he was awarded with the Honorary Membership at the IUFRO Congress 2000 in Kuala Lumpur, Malaysia.

Franz Schmithüsen will remain in our memories as a critical, committed and pleasant colleague who was keen to debate and looked far beyond his area of expertise. The IUFRO community shall gratefully thank him for his efforts and contributions to the growth and international presence of IUFRO in the forestry world. We are grateful for his friendship and understanding we received.

(Source: Heinrich Schmutzenhofer, ETH Obituary, https://www.ethz.ch/services/en/news-and-events/internal-news/archive/2015/04/forming-for-an-entire-generation-of-forestry-experts.html, http://www.iufro.org/fileadmin/material/publications/news-noticias/news15-4.pdf)

Historical Transition of the State Forest Management in Japan

Ikuo OTA[1] (Japan)

Abstract

Japan is a forested country: Two third of the land area is covered by dense forest. Within her 25 million ha of forestland, 7.6 million ha or 31% is owned by the state. The state forest in Japan has about 140 years of history. Forestry as a science and practice was imported from Europe, and the idea of the state forest organization also was introduced from Germany. However, there were no explicit purposes of state forest management for many years, and the philosophy of sustained yield, which once was adapted as a basis of the management, has not been accomplished in its history. All around the country, state forest as well as private forests were overcut and denuded under the wartime economy in the second quarter of the 20th Century. It is why the rehabilitation reforestation was a painstaking endeavor after the World War II. During the high economic growth period between late 1950s and early 1970s, state forest enjoyed glorious days. Being helped by the soaring timber price, state forest made a big profit and they decided to cut more timber than sustained yield level. However, after the economic boom, state forest account became deficit in lax management and other reasons. In 1998, state forest system was renovated, and finally the purpose of the management has stated. Presently, the state forest is in the process of further reform. Its future direction is to open the forest for the people and to manage the forest in order to better demonstrate the public benefit functions.

Keywords: Forestry Agency of Japan, public benefit functions, self-supporting accounting system, state forest, sustained yield

1. Introduction

Japan is one of the most forest rich countries in OECD. Within her 37.8 million ha of total land area, 25.1 million ha or 67% is covered by dense forest. The area of the state forest in Japan is about 7.6 million ha, and it is bigger than that of Poland who has the biggest state forest in European Union. State forest produces about 20% of domestic timber, even though vast areas of them are preserved as special protection forests of National Parks, World Natural Heritages or other legislatures.

2013, state forest had changed its accounting system from the self-supporting corporate accounting to the general accounting of the government. Before that, state forest changed its

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primary objective from timber production into enhancing environmental functions. Why and how were such drastic changes introduced rather hastily in recent years? This paper analyses historical events of state forest since its beginning, and evaluates present status of its management system.

2. Beginning of the state forest in Japan

Meiji Restoration, which aimed at the overthrow of more than 600 years of domination system by samurai, Japanese warriors, started in 1868. Before that, the country was divided into more than 250 clans. Each clan had a feudal load, and all the loads were submitted to Shogun, the load of loads living in Edo, where is called Tokyo today. Basically all the lands belonged to local loads, except some direct dominions of Shogun, and each clan had its own rules or customs for protecting forests. Although the area was not large, backyard forests of rural villages, namely Satoyama, usually did not belong to the load, but to the people of the village in custom. Because of long tradition of forest utilization for subsistence agriculture, rural people knew well how to manage their backyard forests. In contrast, most of the remote mountain forests were not belong to anybody.

Modern Japan had just started by Meiji Restoration. The new government was eager to introduce western culture and the way of life. They dispatched capable young people to western countries, such as England, France, and Germany, and got many information and technologies in all the area of natural and social science fields. Especially, industrialization and military technology were the highest importance for modern Japan. Political system and modern legislation were the other important issues. Forestry as a science also was introduced in these days from Europe.

The new government took over all the lands of all clans, and strictly divided them into public land and private land, with some exception of imperial reserves. Development of cadastral system was important for the government to obtain stable tax income. It took several years to complete this land ownership partition process, because ownerships of forestland were rather ambiguous until that time. In 1876, forestland partition had done in all over the country, and nearly 40% of forestland was to be designated as state owned forest.

The first forestry section was established in the Ministry of the Interior in 1874. Although the state forest territory was enclosed and the management organization was created, there were no explicit purposes in the state forest. Historically thinking, it was an original problem of the state forest in Japan. This caused many difficulties in its 140 years of history up to now. As described below, the management of the state forest was no consistency until very recent years.

It was also important for the government to have concrete and authorized national laws for managing forestland. During the first three decades of the new regime, overdevelopment of forestland caused severe problems of deforestation and flood in many places. Forest law was highly desired to regulate the utilization of fragile forestland. However, it was not so easy to make such regulatory legislation because of the protest from private landowners and industry. In addition, many peasants complained to state forest in which they used to have traditional use rights. Illegal logging and even setting fires had contrived by such local people. In order to resolve this kind of disputes, the government gave back some parts of state forest to the local villagers, or gave permission to the people for use.

Finally, the first Forest Law was established in 1897, of which the main purpose was to secure land protection function of all forests. The State Forest Law was established in 1899. Originally, Forestry Agency had created in the Ministry of the Interior in 1879, and the agency transferred to the Ministry of Agriculture and Commerce in 1882. The government divided the state owned forest into three parts: State Forest under supervision of Forestry Agency, Hokkaido State Forest managed by Ministry of the Interior, and Imperial Forest for the sake of emperor and his family. The biggest one was the state forest managed by Forestry Agency. Management system of state owned forest in Japan started in this way.

The basic idea of the state forest management system was introduced from Germany. Forestry schools at the university level also were created by the young teachers who studied forestry in Germany. German forestry has been giving a big influence into Japanese forestry since then.

3. Practice of the idea of sustained yield

Japanese government wished to strengthen the tendency of imperialism to expand the political and military power in East Asian region since the late 19th Century. Japan won the Sino-Japanese War in 1895 and the Russo-Japanese War in 1905, and acquired Taiwan from Qing and Sakhalin from Russia after the events. Japan also annexed Korean peninsula in 1910. Forest area expanded to almost twice as much as the original territory. These new forestlands were managed by the Ministry of Colonial Affairs with the help of Forestry Agency.

With the development of the organization in the beginning of the 20th Century, foresters in Forestry Agency worked hard to cruise state forest territories, created forest plans, and began to practice sustainable way of forest management. They established forest plan on about 4.1 million ha and planted trees on 300,000 ha in state forest before 1921. Sustained yield as an idea of sustainable forest management thus began to take off.

However, strong era of the national economy did not last long. Japan had entered into long war with China since 1931, and finally the country decided to fight against the United Nations as a member of the Axis powers. Timber was highly demanded as an important resources for the war, and Forestry Agency overcut and supplied large amount of timber from the state forest by ignoring the sustained yield plan which they established by themselves.

World War II resulted huge areas of devastated forestland over the country. About 3 million ha of denuded forest including both state forest and private forest urgently needed reforestation. Therefore, rehabilitated reforestation was the most important forest policy launched by the Forestry Agency during the late 1940s and the early 1950s.

State forest management system had experienced a big change after the war under the US occupation. First, they lost all the state owned forest in oversea territories. Second, all three different state owned forests in Japanese islands were unified into one, and Forestry Agency took charge in 7.8million ha of state forest altogether. At the same time, Forestry Agency introduced the self-supporting accounting system. It resulted that the agency should make profit to pay salary for employees and to sustain the organizational activities by themselves. Forestry Agency was not a public corporation but a bureaucratic agency within the Ministry of Agriculture and Forestry, while the accounting system of the state forest management was independent from the general budget of the government. The status of employees in Forestry Agency was public servants as before.

Foresters in the agency welcomed the new accounting system, because they could spend money as their own purposes without constraint from the government. In addition, the chief of the agency was chosen from foresters rather than officials. It was another big change of new system, and the whole agency became much more technocratic organization than before. They could do scientific researches and field experiments, and introduced new technologies as long as making profit by their timber production.

There were some exceptions for the self-supporting accounting system. Within the activities of the Forestry Agency, land protection activities such as landslide management and dam construction were exception from the self-supporting accounting system. The money for land protection activities was provided by general budget of the government every year.

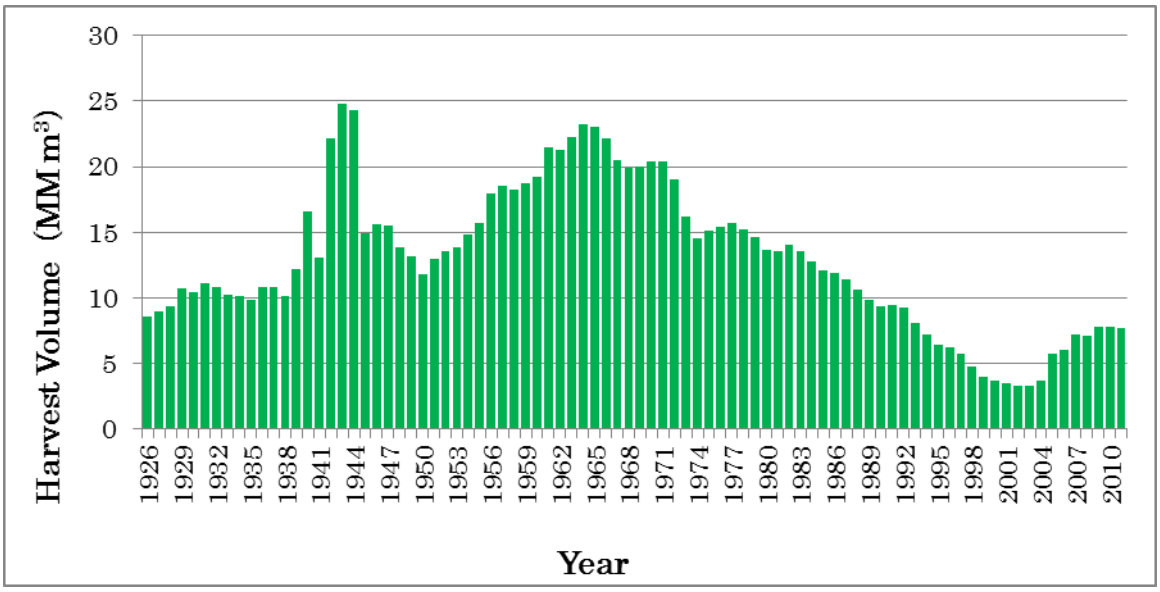

Figure 1. Trend of timber harvest volume on state forest in Japan (1926-2011)*Source: Forestry Agency (Each year) Statistics of the state forest activities*

Activities of the new state forest system were well along with the economic boom after 1950s. Timber demand became bigger and bigger during the high economic growth period, and timber price had continued to rise. State forest forced to cut more trees than annual increment by the public who need timber. In 1958, Forestry Agency launched "Plan for reinforcement of productivity on state forest". There were three objectives in this plan: 1) Expanding softwood plantation in state forest from 1.1 million ha to 3.2 million ha in 40 years horizon, 2) expanding forest road network, 3) Promoting genetic improvement in order to shorten rotation age. According to this plan, forestry agency accelerated timber production during 1960s and early 1970s. Thus, Forestry Agency broke the rule of sustained yield again. Figure 1 shows the trend of timber harvest volume on state forest. Two peaks in the early 1940s and 1960s are the results of overcut.

4. Financial problem of the state forest

Because of high economic growth, timber demand always exceeded the capacity of supply even though state forest hastily increased timber production. Timber price rose up constantly during the period between late 1950s and early 1970s. Boost in timber price was of course welcomed by forest owners, but it was a big problem for consumers and politicians. To cope with such unstable market situation, the government decided to ban log import restriction, a measure enforced after the war because of insufficient foreign currency reserves, and facilitated import of softwood log for construction, especially from the United States, in 1961. It was an epoch making policy decision in the history of forestry in Japan. After that,

the government began to reduce tariff rate for wood products one after another. Consequently, huge amount of log, timber, plywood and wood chips from many countries flooded into this small island.

After the policy change of free acceptance of foreign logs, imported timber started to replace the position of domestic timber in the market. As shown in Figure 2, import expanded sharply, and it became over 50% of wood supply within ten years after the ban of import restriction. There were several reasons for superiority of imported logs: 1) Logs with large diameter from foreign countries such as USA and Indonesia were more profitable than domestic small diameter ones for sawmills, 2) Imported logs were homogeneous in quality and good to mass production, 3) Imported logs were less expensive than domestic ones.

With the expansion of timber production and rising revenue, Forestry Agency hired more and more staff and forest workers until 1960s. However, working conditions for forestry workers were very bad to compare with staffs and even with labors in other industries. Therefore, improvement of working conditions was the primary question for labor union of state forest workers. Finally, until mid-1970s, most of the contracted workers became permanent fulltime employees of state forest, and their working conditions were further improved. Unfortunately, however, financial situation of the state forest accounting began to be worse at that time. Employment of forest workers as permanent fulltime status became a heavy burden for state forest since its early stage.

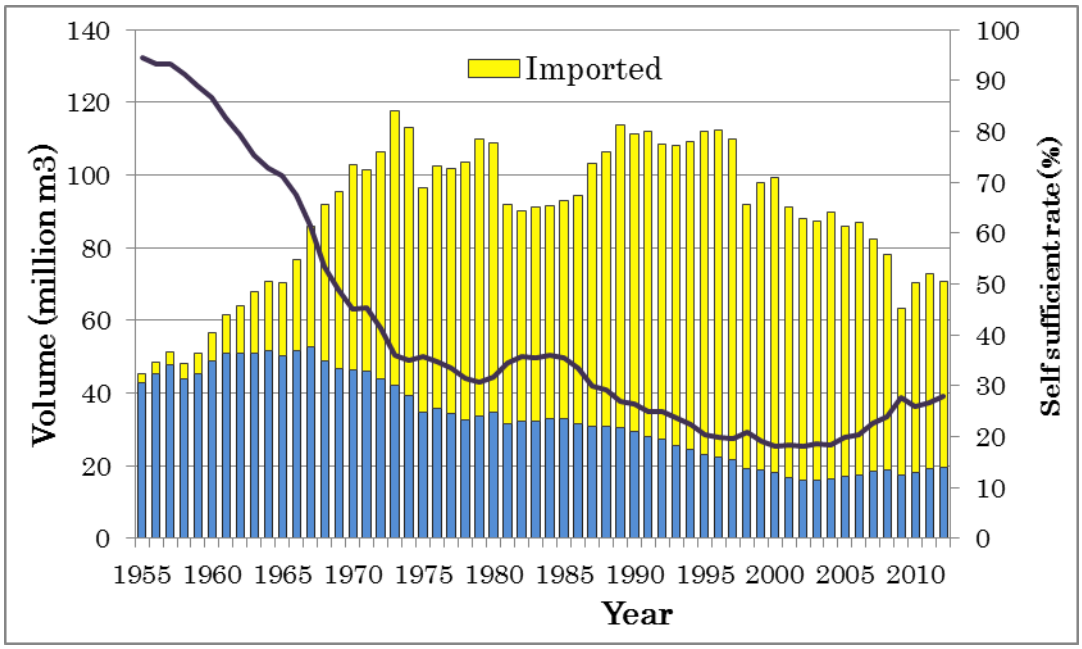

Figure 2.Trend of domestic production and timber import volume of Japan (1955-2012)

Source: Forestry Agency (Each year) Table of wood demand and supply

In 1975, the state forest recorded a historically large deficit. Since this year, state forest accounting never got positive balance at all. The reason of deficit was clear. Domestic timber, including the state forest products, had been expelled by imported substitutes. Although timber production volume was shrinking, expenditure of the organization increased steadily. To reduce the number of workers was a critical requirement from the government. Coping with such a situation, Forestry Agency made “Plan for betterment of state forest management” in 1978. The objective of this plan was improving efficiency of state forest management, and the main target of the plan was reducing the number of workers. Table1 shows the trend of the number of employees from 1950 to 2010. In this table, the staff means foresters (including engineers, technicians, and other field staff) and officers, and forest workers means physical labor (including logging and silvicultural workers) with permanent fulltime and part time status.

Table1.Trend of the number of employees in Forestry Agency (1950-2010)

Year	Staff	Forest Workers	Total Employees
1950	21,099	NA	NA
1955	20,122	NA	NA
1960	26,409	NA	NA
1965	39,980	NA	NA
1970	39,373	90,223	129,596
1975	36,744	61,750	98,494
1980	33,304	38,540	71,844
1985	27,983	23,514	51,497
1990	19,962	15,649	35,611
1995	11,865	8,019	19,884
2000	6,322	4,028	10,350
2005	5,108	2,039	7,147
2010	4,756	922	5,678

Source: Forestry Agency (Each year) Statistics of the state forest activities.

Although great efforts for improvement had been done, financial status of the state forest account became worse and worse. Forestry Agency revised the betterment plan again and again, in 1984, 1987, and 1991, but the situation could not be improved as planned. State forest as well as private forest sector in Japan carried structural problem in this stage. Wage rate increased constantly with upward economy, but timber price did not because of the competition against imported wood.

Forestry Agency had also reduced the number of divisional forest office, the local center of state forest management, drastically as one of rationalizing measures. As shown in Table2, more than 350 divisional forest offices were located around the country in 1978, but now there are less than 100. With the reduction of the number of forest rangers, average forest acreage for one forest ranger became very large.

Table2. The number of divisional forest offices (1978-2012)

Year	Number
1978	351
1984	335
1988	316
1992	302
1996	264
1998	229
2000	98
2012	98

Source: Forestry Agency (Each year) Forestry white paper

In addition to all downsizing efforts described above, Forestry Agency sold redundant lands in order to get money. Especially, the sites of the divisional forest offices and ranger stations, which were relocated because of merging with adjacent ones, were sold to the public.

However, financial status of the state forest account had not retrieved at all. Figure3 shows the trend of revenue and expenditure of the state forest account. Deficit, or gap, between expenditure and revenue, became bigger and bigger after late 1970s, and the state forest account continued to pile up loans from national treasury. All the betterment plans had failed until the middle of 1990s, and it was no hope for Forestry Agency to clear up the debt by themselves. Total amount of the debt reached at about 3.8 trillion yen in 1998 when the state forest account system came to practically bankrupt.

5. Renovation of the state forest system in 1998

In October 1998, the government decisively carried out an epoch making policy change on state forest management. A new law, Law of Special Measures for State Forest Renovation, was to explain the reasons of this renovation of the state forest, to declare the new objectives of the state forest management, and to designate additional special measures.

The noteworthy point of the law is that the primary purpose of state forest management should be changed from continuous timber production to public benefit functions such as

land protection and water holding capacity. In addition, the self-supporting accounting system of the state forest partially abolished, and 2.8 trillion out of 3.8 trillion yen of total cumulative debt transferred into the general budget of the government for repayment. Important points of this renovation were as follows:

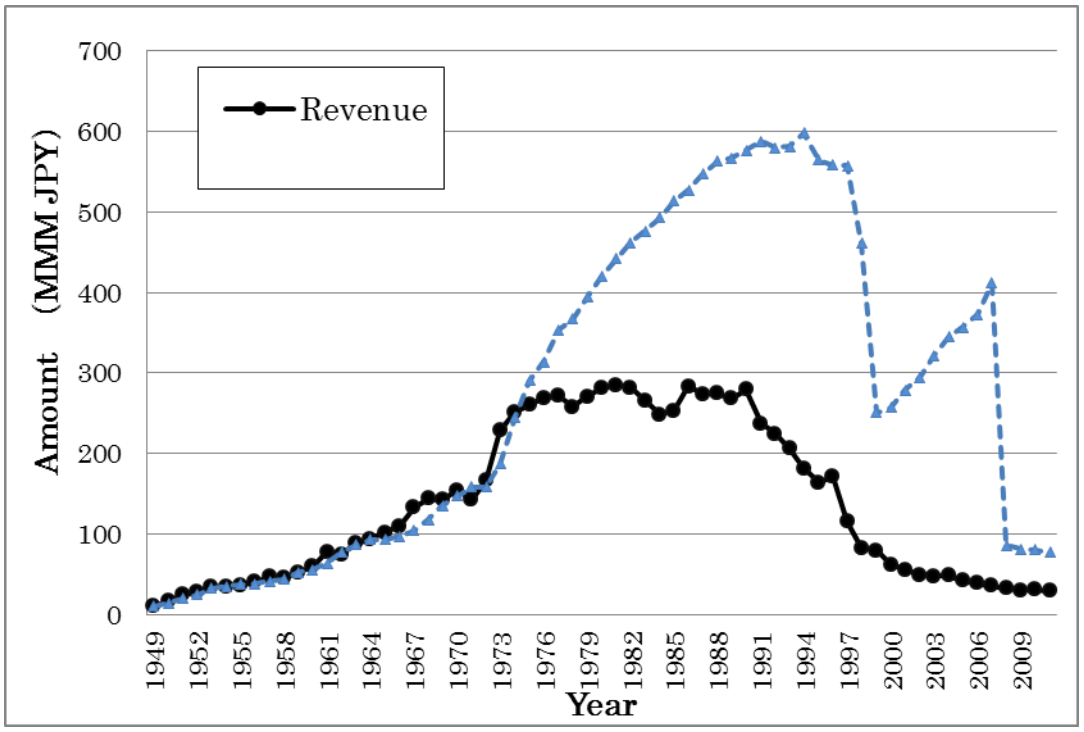

Figure3. Revenue and expenditure of the state forest account (1949-2011) *Source: Forestry Agency (Each year) Summary of forestry statistics*

The noteworthy point of the law is that the primary purpose of state forest management should be changed from continuous timber production to public benefit functions such as land protection and water holding capacity. In addition, the self-supporting accounting system of the state forest partially abolished, and 2.8 trillion out of 3.8 trillion yen of total cumulative debt transferred into the general budget of the government for repayment. Important points of this renovation were as follows:

(1) The primary purpose of state forest management is designated to maintain public benefit functions but timber production.

(2) Integration of regional forest offices from 14 to 7, and divisional forest offices from 229 to 98 until April 1999.

(3) Abolish the present self-support accounting system of the state forest, and the government financially supports the state forest budget so as not to pile up another debt in the future. At the same time, 2.8 trillion out of 3.8 trillion yen of cumulative debt was transferred to the general budget.

(4) Getting out of logging and silvicultural practices with own forest workers, and all the practices are to be done by contracted private workers.
(5) Making realistic schedule of repaying 1.0 trillion yen of remained debt which Forestry Agency was responsible for. It would take 50 years to accomplish repayment of all the debt by the plan.
(6) Further reduction of employees both staff and forest workers.
(7) Creating basic forest management plans having formal public review process in both national and regional level.

As a result of this renovation, classification, i.e. zoning system, of state forest has changed. Before 1998, more than half of total state forest was classified as “timber production forest”, but around two third of such forest was going to be re-classified into “land and water protection forest”. Finally, public function forest increased from 46% to 79%, but timber production forest decreased from 54% to 21% by the renovation. Expected timber production volume was also shifted downward in accordance with this change.

Legal framework of state forest also has changed in 1998. Management of the state forest used to be regulated by the Law of State Forest originally established in 1951. However, this law only concerned forest planning, sales and renting procedures of the state forest and others. Details of the management in practice were ruled by the Ministerial instruction. This was because the chief of Forestry Agency needed freedom of management under the self-supporting accounting system. With the renovation of the accounting system, the situation should be changed, and the Law of State Forest was revised and renamed as the Law Concerning for State Forest Management in March 1999.

The Law Concerning for State Forest Management designated the purpose of the state forest in its chapter 3 as follows:

The purpose for managing the state forest is to maintain and promote public benefit functions of state forest such as land protection, and also to produce forest product with sustainable and planned manner, and to contribute to the industrial promotion and improvement of people’s welfare of the local society where the state forest allocated with the utilization of the state forest.

Self-supporting accounting system of the state forest had collapsed after a half century of experience. The organization survived and renovated, but the number of employees became very small. Without regarding forest workers, the number of staff in 2010becameless than 5,000, and it is about 1/8 of those in 1970. In such a situation, how can they look over 7 million ha of state forest at all?

5. Demise of the self-supporting accounting system and the present status

In 2013, self-supporting accounting system of the state forest had finally ended. After that, all the budget of Forestry Agency belongs to the general budget of the government. The new slogan of the state forest since 1998 is “Forest for the public”. Before that, general public likely thought that the state forest was owned by the national government as a source of income, even though it was not profitable for years, and Forestry Agency behaved like a big company who possessed the forest on behalf of the government. Forest plan in the state forest was completely separated to those of private forestlands, and Forestry Agency was on their own way without cooperating with others. Now things changed, and the state forest is to belong to the people. However, people are confused about this drastic change, and it will still take many years for general public to accept the slogan as it is.

“Forest for the public” is a beautiful slogan, but it might mean that “we cannot manage the state forest well, so we ask you to manage and use it”, in some extent. Forestry Agency should be responsible for all the stewardships to the state forest, but actually it is not possible with its limited amount of manpower and budget. Actually, not a small portion of the state forest is located high mountains or steep terrains, and some of such lands are designated as national parks, world natural heritages, or other protected areas, but there also are over 2.2 million ha of softwood plantations. Timber production is still an objective of the management, though it is not the primary one. Proper management of the state forest is surely required now and in the future.

Presently, the state forest system is composed of 7 regional forest management offices as shown in Figure 4. There are 98 divisional forest management offices, and 842 ranger stations under the supervision of regional forest management offices. In most cases, there is only one ranger, or forester in other word, in each ranger station. However, much more ranger stations existed in 50 years ago, i.e. in 1964; there were 2,334 ranger stations in which one or more rangers worked. Since total area of the state forest has not changed, the management area per one ranger has increased greatly. Average size of the management area is about 9,000 ha per ranger now. As a result of this change, proper forest management would not have been made in many cases.

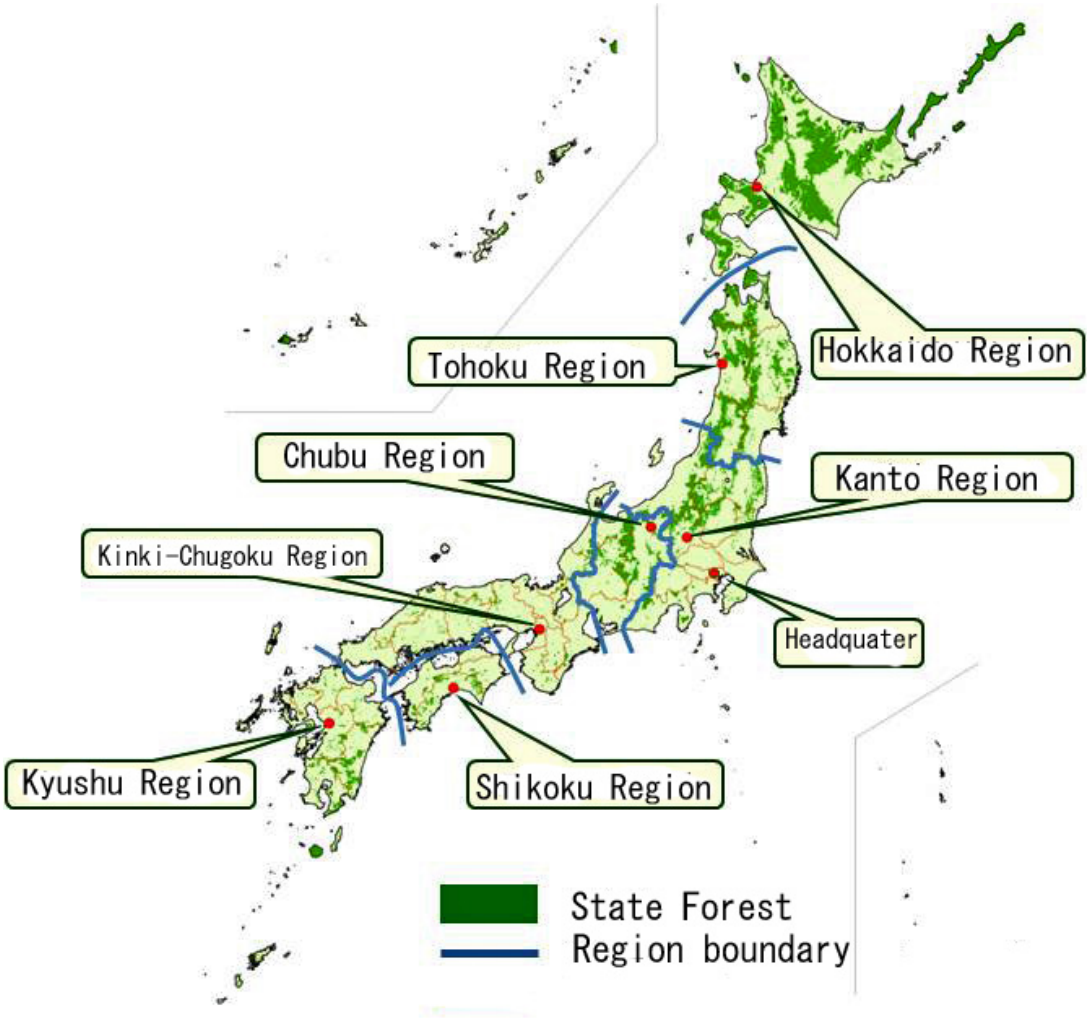

Figure 4. Map of the state forest in Japan *Source: Forestry Agency HP <www.rinya.maff.go.jp> revised by the author*

Zoning of the state forest has changed several times after the World War II. The first zoning system was introduced in 1958. There were three categories as follows: 1) environmentally friendly management forest, 2) timber production forest, and 3) forest to contribute to local people. Majority of the forest were categorized in number 2 area at the time.

Zoning system today is more complicated. Table 3 indicates the present zoning system. It is based on the function types classification. Interestingly, there is no category about timber production. However, in the categories of “prevention of soil erosion and landslide” and ”Facilitating water holding capacity”, timber harvest is planned in order to fully perform respective forest functions. Because of adapting such zoning system, Forestry Agency seems to be glorified with environmentally friendly organization to the public.

Table 3. Zoning system of the state forest (2014)

Category (Function types)	Area (ha)	Percentage (%)
Prevention of soil erosion and landslide	1,450,000	19
Maintaining natural ecosystem	1,660,000	22
Utilization of forest space	540,000	7
Creating comfortable environment	1,000	0
Facilitating water holding capacity	3,930,000	52
Total	7,580,000	100

Source: Forestry Agency (2014) Forestry White Paper

6. Conclusions

State forest system is changing in Japan. Originally, it was a state property for making money to the government and for supplying timber to build up the developing nation. However today, the government is struggling to keep the forest in good shape because of the budget limitation, while people expects more and more public benefit functions to the state forest rather than timber production.

Having a long history as a giant timber producing organization owned by the state, Forestry Agency is not a kind of the office who contacts with people friendly and gently. Their behavior is still somewhat overbearing. The way to reach the “Forest for the public” would be long and winding.

Nevertheless, a tailwind is blowing for forestry. A movement for aiming the low-carbon society is getting active especially after the nuclear power accident in Fukushima. Utilization of wood as material and energy source is increasing. The importance of forest as an open buffer zone and protection against natural disaster has also increased.

Under such circumstances, state forest is increasing its timber production in recent years (see Figure 1). Thinking about the good relationship between forest and people, stable timber production including small clear cut and thinning operations is welcomed in terms of sustainable forest management. Collaborative forest practices of state forest and surrounding private forests, of which one could not even imagine in the past, is beginning here and there. General attitude of state forest employees is improving so far. Further progress of the state forest management with leaning from the examples of other countries is expected.

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Analysis of Forestry Sector Financing in Tajikistan

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1. **Background**

The forestry sector is a minor part of Tajikistan's national economy; it is, however, of utmost importance for provision of forest products to a local population which is strongly dependent on that. It provides important local and global environmental services, such as maintaining soil stability, protecting water flow and quality, regulating the global climate through carbon sequestration, and serving as the repository of the bulk of terrestrial biodiversity.

Similar to other Central Asian countries, Tajikistan has relatively small forest resources. The country's forests cover an estimated 421.000 hectares[4] (ha) or 3% of its land area and account for 0.01% of global forest cover. Forest cover in Tajikistan corresponds to 0.05 ha per capita against 0.6 ha globally.

During the last 70 years, the area under forests in Tajikistan decreased significantly due to conversion into agricultural lands as well as its use for firewood as the only source for heating and cooking purposes in rural and remote areas during the civil war. Almost 70% of the population in Tajikistan lives close to or within forest areas. Forests in Tajikistan have soil-protective, erosion-preventive and water-conservative functions and are of significant importance for agricultural and energy sectors of the country while providing, among others, employment opportunities. Given seasonal employment fluctuations, the forestry sector employs up to 10,000 people.

Transition to a market economy stressed the need for reforms in Tajikistan's forestry sector. Since independence in 1991, Tajikistan's forestry sector has undergone several structural changes. The issue of sustainable forest management (SFM), that ought to be sound economically, ecologically and socially, has become one of the key sectoral tasks of the Government of Tajikistan.

Sustainable forest management implies use of forests and its resources in ways and at the rate that ensures their biodiversity, productivity, regeneration capacity and potential for fulfilling

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[4]Forestry Agency Data

their **ecological, economic and social functions** for future generations. This is a complicated task that requires coordinated efforts and effective partnership between government agencies, NGOs, civil society, private sector, investors and other stakeholders. Recently introduced legal and institutional reform steps ensure that all interested stakeholders can get involved, invest, contribute and benefit from forest management. One of the important pre-conditions for SFM is an adequate level of finances through all available sources. Analysis of forestry sector financing in Tajikistan stressed insufficient levels of finances as one of the main reasons that encumber sustainable forest management and afforestation activities and revealed the urgent need for reforms of the current financing system.

Currently, the forest sector is financed from state budget and special funds generated by the 42 state forest enterprises (SFE) in Tajikistan, only.

The input-based financing approach used for state budget planning for all sectors of the economy, including for forestry sector in Tajikistan, has proved to be inefficient. This financing mechanism lacks performance indicators and monitoring activities. Sector financing is allocated on a residual basis. As a result, forestry sector experiences chronic underfinancing.

While private sector investments in the forestry sector in developing countries is seven times higher compared to total ODA for the forestry sector[5], participation of Tajikistan's private sector in forest sector development is basically non-existent. Foreign investors are also not interested in investing in the forestry sector due to inadequate sector information and small sector size. Local population wherever involved as lease holders is contributing in kind as additional labor force.

In this regard, there is a need for efficient use of available funds. In addition, there are untapped potentials and opportunities for SFE to increase their profit through efficient use of forest resources and their sustainable management. The forest sector in Tajikistan may also benefit from increased global attention to climate change aspects and high need for adaptation of national economies.

2. Current financing level of forestry sector

Sustainable forest management is one of the Tajik Forestry Agency's key responsibilities. Sustainable forest management and its use for the interest of state, society and future generation is possible through creating a system of sustainable financing of forestry sector

[5]World Bank. Forests and Economic Development. August 2013.

only. Sustainable financing of the forestry sector is considered as one of the key bottlenecks for forest sector development in Tajikistan.

Financing of forestry sector can derive from various sources and channels:

- central and local governments (budgetary),
- revenue from the sale of forest product and rendering services (non-budgetary),
- private sector investment (investments), and
- overseas development assistance (ODA).

The forestry sector in Tajikistan is currently financed through state budget and special (non-budgetary) means of SFEs generated via sale of forest products and rendering ecosystem services. Private sector participation in forestry sector development is at its rudimentary stage. ODA are channeled through various projects.

State Budget Financing. Forests in Tajikistan belong to the state or to public entities (e.g., Dekhan farms, production cooperatives), therefore, main financing of the forestry sector is channeled through state budget allocation.

Input-based financing is currently used for planning of budgetary allocations for the forestry sector in Tajikistan. Input-based financing has the following weaknesses and disadvantages:

i. Financing is based on cost estimates, not on results (performance indicators);
ii. Budget planning for next year is based on indexation of costs incurred in previous year;
iii. Rigid budget plan system and "soft" control over actual spending;
iv. Discrepancy between amount of budget allocation and functions performed and results.

Input-based financing is based on predetermined costs and does not take into account actual performance indicators of the financed activities. Thus, there is a mismatch of actual expenditures with final outcomes of forestry activities and forest management. Furthermore, this method creates irrational stimulus to increase costs since budget expenditures for the next year are cut when savings are in place in some expenditure items in the previous calendar year.

This method of budget planning and estimation for financing the forestry sector has not changed since 1990s. Financing of the forestry sector in Tajikistan has always been based on

the residual principle. Residual funds from state budget earmarked for forestry sector have always been below actual financing needs. As a result, forestry sector has been constantly suffering from underfinancing. Analysis of financing flow to forestry sector during 2012-2014 showed that financing from state budget covered on average 28% of the sector needs. Most part of financing covered salary and non-salary operating expenses (80%). Subsequently, major underfinancing is attributed to silvicultural and related activities.

The share of budget allocation to the forestry sector in overall state budget expenditure items during 2012-2014, averaged 0.09%. However, incremental growth of budget allocation to the forestry sector has been greater as compared to that of overall state budget expenditure items and inflation rate. Growth rate of budget allocation to forestry sector were 32.9% and 43.1% compared to that of overall budget expenditures accounting for 20.3% and 18.6% for 2012 and 2013 respectively. Inflation rate for the same period accounted for 6.4% and 3.7% accordingly. Nevertheless, this trend was not steady as evidenced by contraction to 4.9% in growth rate of budgetary allocation made in 2014.

Table1. Stat Budget Allocation to Forestry Sector for 2010-2015

Indicators	**2005**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
State budget expenditures ('000 TJS)*	1,291,000	6,781,799	8,593,870	10,340,600	12,268,071	14,143,126	15,542,463
Growth rate of budget allocation (%)	0	425.3[6]	26.7	20.3	18.6	15.3	9.9
Incl. allocation to forestry sector (TJS)	1,412,614	4,723,258	6,046,648	8,034,765	11,499,219	12,024,456	14,362,459
Growth rate of budget allocation to forestry sector (%)	0	234.4[7]	28	32.9	43.1	4.9	19.4
Ratio of forestry sector budget allocation to overall state budget expenditure (%)	0.11	0.07	0.07	0.08	0.09	0.09	0.09
Inflation rate (%)**	-	9.8	9.3	6.4	3.7	7.4	-
US $ Exchange rate (end of period)*	-	4.4031	4.7585	4.7644	4.7741	5.3079	6.2602[8]

Source: Data from Ministry of Finance (*) and National Bank of Tajikistan (**)

[6]2005 is used as a base year

[7]2005 is used as a base year

[8]Exchange rate of Tajik Somoni against US Dollar as of July 20, 2015

The growth in budgetary allocation to the sector in 2013 was mainly due to an increase of administrative and operational (salary and non-salary) costs, including rise in salary and subsequent growth of social taxes.

Indeed, despite continuous increase in state budget financing of the forestry sector during 2010-2015, relative share of funds allocated to State Forest Enterprises (SFEs) for silvicultural and related activities (afforestation and reforestation, creating and rehabilitating irrigation system, pest management, creating and restoring forest protective strips, forest roads etc.) in total budget allocated to SFEs is diminishing. Findings from our analysis suggest that the share of silvicultural activities financing in total budget allocation to SFEs was shrinking from 26.3% in 2012 to 21.5% in 2013, 19.7% in 2014 and 17.4% in 2015 (as per approved state budget).

That lack of budget allocation for silvicultural activities resulted in the decrease of a number of silvicultural activities and area planned for this purpose. Prior to independence, total area planned for silvicultural activities annually in the sector accounted for about 5,000 ha, whereas now it is reduced by 60% to about 2,000 ha[9].

Low financing from state budget has also been allocated for repair and maintenance of machinery and equipment. During 2013 and 2014, the share of expenditures for repair and maintenance of transport facilities accounted for 1.52% and 2.07% respectively. This can partially be explained by the conditions of available machinery and equipment which are obsolete since no funds have been allocated to update them. Another reason is that machinery and equipment are too old and allocated funds for their repair and maintenance cannot actually cover the cost of bringing them to operational condition. Machinery and equipment are in "beyond economic repair" condition and should rather be written-off.

Furthermore, the forestry sector is one of the lowest salary sectors of the economy in Tajikistan. Despite its historical increase, annual average salary in 2013 was TJS 376.43 equivalent to US$ 79.01 constituting 54.2% of national average level. Employees in the forestry sector (i.e., SFEs) get 2 times lower salary than employees from manufacturing industry and public administration & defense sector, 4 times lower than transport & communication sector and 5 times lower than employees from financial intermediation sector.

Own Funds of State Forest Enterprises. Another source of financing for Tajikistan's forestry sector is revenues of State Forest Enterprises (SFEs) generated through sales of

[9]Data from Forestry Agency under the Government of RT

forest products and plants, rendering ecosystem services (right to pasture), lease of forest plots, penalties on illegal activities etc. Analysis of revenue sources showed that during 2012-2013 less than 55% of its revenues are generated via silvicultural activities. Given available land, market opportunities and current pricing mechanism for forest products, profitability of state forest enterprises is considered to be low. Average profitability of SFEs considering budgetary and non-budgetary funds as well as revenues generated during 2012-2013 accounted for less than 50%.

One of the key limiting factors for increased profitability of SFEs is the existing pricing mechanism for forest products which affects, *inter alia*, motivation of SFEs for increased production of forest products. Application of non-market pricing mechanisms as currently practiced in the forestry sector do not take into account such factors as seasonal demand and supply, competitive advantages, customer preferences etc. Prices for forest products determined by the Forest Agency (FA) are far below the prices prevailing in domestic market.

Private Sector Involvement and ODA. Generally, the private sector plays an important role in financing forestry sector. According to International Union for Conservation of Nature[10], global investment in commercial forestry is over US$ 150 billion per year which is far more than US$ 12 billion or so spent on the forest sector each year by governments and aid agencies combined. World Bank estimates suggest that private investment in developing countries and countries in transition is estimated to reach US$ 10 billion per year[11]. While private sector investments in the forestry sector in developing countries is seven times higher compared to total ODA (about US$ 1.5 billion) for the forestry sector, participation of Tajikistan's private sector in forest sector development is basically non-existent.

Despite available investment incentives pursuant to Law on Investment, Tax Code and Custom Code of the Republic of Tajikistan, domestic and foreign investors are still not interested to invest into the forestry sector of Tajikistan. The main reasons for that are insufficient land tenure security and availability of sufficiently large and productive land for forestry, long periods of return on investments, lack of information on the potential and investment opportunities in forestry sector, high interest rates for loans and lack of concessional lines of financing from financial sector for investment in forestry sector and the small-scale domestic markets coinciding with remoteness from international markets (i.a., high transportation costs).

[10]Interview of Stewart Maginnis – IUCN Global Director given on April 2011

[11]World Bank.Forests and Economic Development. August 28, 2013

3. Economic potential of Forestry Sector

The contribution of the forestry sector to national economies is one dimension of sustainable forest management. Despite the fact that forests cover only 3% of the country's area, this sector has diverse economic potential. Forests in Tajikistan host a wide diversity of plant and animal species and recreational area. Tajikistan's dendroflora comprises 268 species of trees and shrubs, including 22 medicinal herbs many of which are important both commercially and for sustaining rural livelihoods. Major goods include fuelwood, fodder, wild food, medicines and other non-timber forest products.

Tajikistan's forest resources provide livelihood for rural people, employment opportunity and source of income, thus contributing to poverty reduction. Currently, poverty headcount ratio stands at 35.6% and majority of poor people live in rural areas[12]. Given the target set by the Government of the Republic of Tajikistan to decrease poverty rate to 30% during 2015, forestry sector may play an important role in achieving this.

Forestry sector provides employment opportunities, in particular for labor force in rural areas in Tajikistan, since almost 70% of population in Tajikistan lives close to or within forest areas. Given seasonal employment, forestry sector employs up to 10,000 people annually. 1 of 2 households are using wood as primary fuel for cooking and heating homes. Non-timber forest products are used by local population to meet their basic needs. According to official reports, SFEs annually are collecting/harvesting on average 10,000 m^3 of wood, 1200 tons of pistachio, 200 tons of dog-rose, 10 tons of honey, 120 tons of walnuts, 15 tons of almond, 20 tons of medicinal herbs, 100 tons of dried fruits, 200 tons of vegetables and gourds etc. Revenues generated by SFEs from using forest resources account for over TJS 6 million (equivalent to over US$ 1.1 million) which is far below from its current potential.

Timber and fuelwood are amongst the most important forest products that potentially can generate cash earnings. In the 1970s and 1980s, some 400,000 meters^3 of timber used to be imported annually from Russian Federation, including 350,000 m^3 as commercial timber and the remaining 50,000 m^3 as fuelwood. In monetary terms, total imported timber and its main products accounted for US$ 228.300 during 2013. These figures demonstrate a huge potential for both tree planting and timber processing industry which must be employed through comprehensive afforestation programs jointly by domestic and foreign investors and forestry sector.

[12]Address of the President of Republic of Tajikistan to Parliament - 2015

Non-Timber Forest Products (NTFP) have potential to bring higher economic returns. Of course, the significance of NTFP differs from region to region and among individual SFEs operating in each region due to geographical and biological features of area and the extent of NTFP availability. Current revenue level generated by SFEs from NTFP sales does not reflect its actual potential. Analysis showed that revenue from NTFP sales has the highest share in SFEs' overall revenue sources. Certain high-valued forest products of Tajikistan are traded in both domestic and international markets and there is always a certain level of demand for them. However, existing pricing mechanism for NTFP is hindering SFE from generating increased revenues. Given the current level of such NTFP and their prices prevailing in domestic markets, potential revenues of SFEs from high-valued and demanded NTFP sales could have been higher by at least 120%.

With proper capital investments in establishing processing plants and creating value chains for NTFP, and adopting market pricing mechanism potential revenue may increase even higher and create employment opportunity.

4. Options for improving financing of forestry sector

Analysis of forestry sector financing in Tajikistan stressed an insufficient level of finances as one of the main reason that encumbers sustainable forest management and afforestation activities.

Based on the trend of the annual budget financing level allocated to the forestry sector and given the 2016-17 budget forecast, the annual increase of state budget financing will not exceed 10-12%. In this regard, effective use of available funds from state budget allocation becomes an important aspect.

As an alternative to the input-based financing approach, a programmatic budgeting approach is recommended. A programmatic budgeting approach would be a mechanism to implement Government's forestry policy as indicated in the Forestry Development Strategy for 2016-2030. It could help transform strategic objectives determined by the main strategic sectoral document into budget programs and its relevant activities. Adoption of this approach would further help the sector to identify priorities and focus key human and financing resources on their implementation given limited financing capacity of state budget.

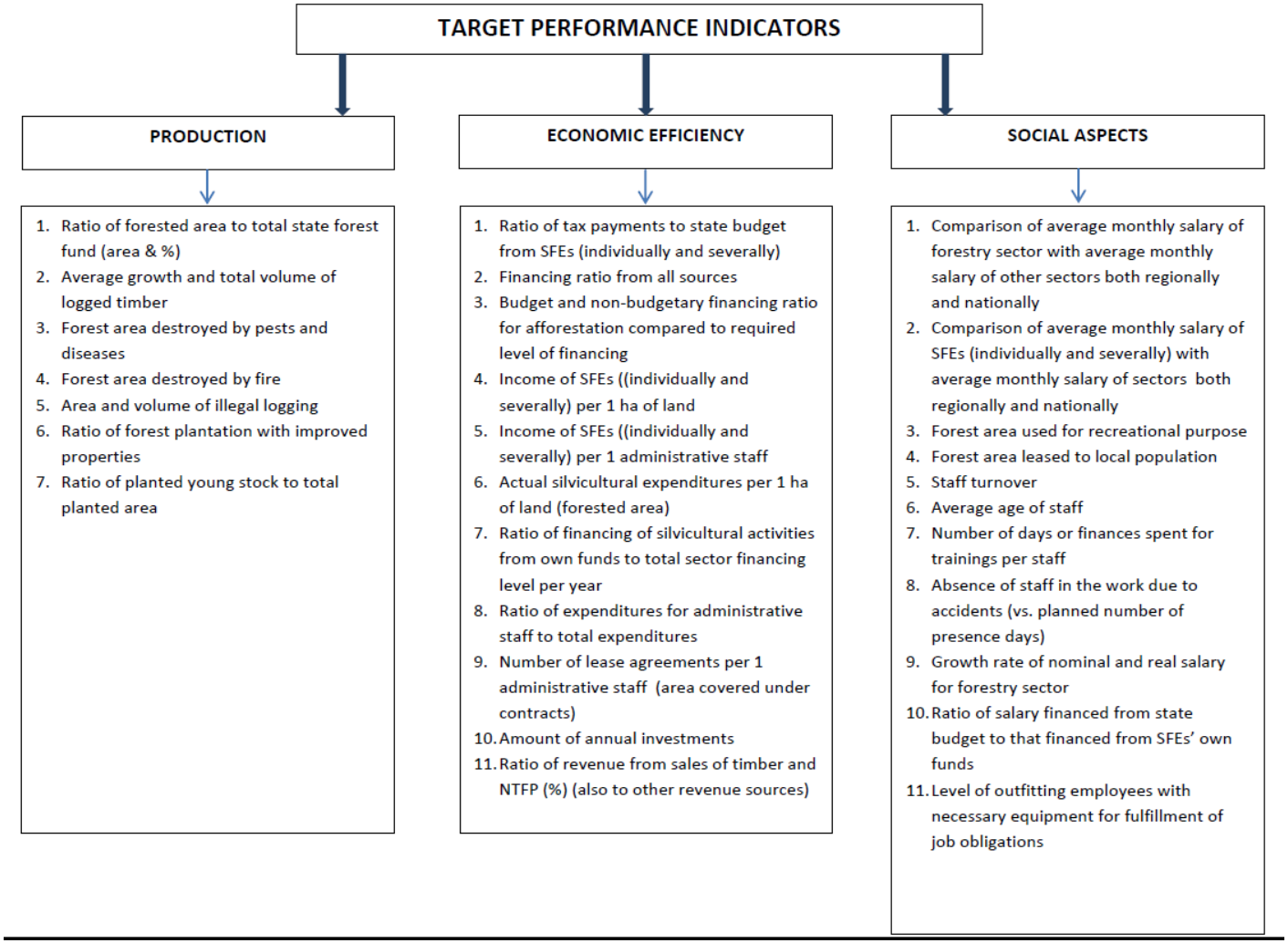
All budget programs must be feasible and measureable. They can be measured via target performance indicators. Target performance indicators shall be used as an instrument for monitoring ecological, economic and social aspects of budget programs. Such performance indicators can be developed for the whole sector as well as for individual sector

organizations. An example for performance indicators based on analyses and consultations with the SFE Penjikent are depicted in Figure 1.

With the view to increase financing other sources than budget and own funds of SFE, the following activities could be jointly or severally implemented and need support from and involvement of both the Government of Tajikistan and development partners:

- Arranging concessional loans by the banking sector for SFEs and entrepreneurs for organization of the production and processing of forest products through the Entrepreneurship Support Fund or public-private partnership;
- Inclusion of investment projects in the forest sector into the programme of international investment events and forums conducted in the Republic of Tajikistan and abroad annually;
- Improving access to information on investment opportunities in forestry sector for both domestic and foreign investors and creation of an investment friendly environment;
- Active collaboration with development partners (donor organizations, international funds on financial and technical cooperation), in particular in respect to grants and loans for purchase of equipment and machinery as prioritized by SFE under agreed management approach to ensure their long-term use and sustainability.

Figure 1. Proposed Performance Indicators



A Legal Analysis on Turkish Forest Legislation in Terms of Legally Binding Agreement on Forests in Europe[1]

Üstüner BİRBEN[1], H. Emre ÜNAL[2], Sezgin ÖZDEN[3]

Abstract

Besides meeting needs of the society, protecting and enhancing forests that have an important role among natural resources depends on obtaining benefit from forest ecosystem based on sustainable development principles. For this aim both social order and legal rules are necessary.

Main goals stated as sustainable forest management, forest restoration, production potential for renewable energy, adaptation to climate change, biodiversity, green economy, forest functions, decreasing illegal harvesting, information, participation and cooperation and anticipated to be signed by the parties Forest Convention is only one of these legal rules and will be a part of the domestic law system in the near future in Turkey. That change will require amendments for national forest regulation in the domestic law system and hence the legislative framework related to the subject and effectiveness for organization forms. Even if the studies carried for this aim have different aspects to each country, experiences of the past offer opportunity to find the truth. Especially seeking sustainable forest management brings new attitudes, notions and applications for the subject. The main purpose of all the new attitudes, notions and applications is to ensure a balanced interaction between society and forest ecosystem.

As a consequence it is important to study on Forest Convention that is anticipated to be signed by the parties in near future in terms of national forest regulation. For this reason, in this study, FOREST EUROPE process is studied chronologically in notions of the Forest Convention, international law, the notion of international convention and finally the main aims emphasized in the draft document of Forest Convention are studied considering national forest regulation for weaknesses, strengths, threats and opportunities.

Keywords: FOREST EUROPE, Forest Convention, National Forest Legislation

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[1] [[European] / [Regional] Forest Convention]] / [International Framework Convention on Forests] / [Forest Convention]

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1. Introduction

Before being participated in the United Nations Conference on Environment and Development (UNCED) held in Rio in 1992, many of the United Nation countries have hoped to agree on a comprehensive forestry agreement and discuss on such topics as biodiversity, climate change and combating desertification but that aim has failed when industrialized and developing countries could not agree on a common decision and couldn't develop common strategies. At the end, agreements[4] attributing to biodiversity, climate change and combating desertification have been adopted instead of a comprehensive forestry agreement. Although not agreed on a comprehensive forestry agreement, United Nation countries have kept studying on the subject after Rio and have attained important stages[5] (OGM, 2010). FOREST EUROPE process, among the stages, is the most important one related to this study.

2. FOREST EUROPE Process

On the initiative of France and Finland, FOREST EUROPE process developing forest policy for sustainable management of the whole forests in Europe was held in Strasbourg/France in 1990 with the first Ministerial Conference. The process has been called "FOREST EUROPE" since the beginning of 2010 while its official name is "the First Ministerial Conference on the Protection of Forests in Europe". Within the process, common strategies have been developed on how to protect the forests and enhance the sustainability for 46 European countries and European Union. It has especially served to provide a solid and healthy basis for animals, plants, biodiversity, natural products, a clean environment, job, recreation and tourism (OGM, 2011a).

FOREST EUROPE process has meant to provide an agreement on the forest management in Europe and held conferences for this goal. Political engagements (the Ministerial Conference decisions) has monitored with such operations as specialist meetings, round table meetings, workshops and working groups. Turkey has been a 'signatory country' for FOREST EUROPE process beyond its establishment and the decisions taken within the process have been signed by the Turkish ministers responsible for the forests then have become part of the domestic law (OGM 2010).

[4]Forestry Principles, Agenda 21, The UN Convention to Combat Desertification, Convention on Biological Diversity, United Nations Framework Convention on Climate Change.

[5]The Intergovernmental Panel on Forestry (1995-1997), Intergovernmental Forum on Forests (1997-2000), UN Forestry Forum (2000-2015).

Six Ministerial Conferences have been held so far within the process dating back 1990. The process and the decisions are stated below in Table 1.

Table 1: The Ministerial Conference Decisions (Yegül, 2010; OGM, 2011b)

1990 Strasbourg Ministerial Conference Resolutions	**S1 -** European Network of permanent Sample Plots for Monitoring of Forest Ecosystems; **S2 –** Conservation of Forest Genetic Resources; **S3 -** Decentralized European Data Bank on Forest Fires; **S4 –** Adapting the Management of Mountain Forests to New Environmental Conditions; **S5 –** Expansion of the EUROSILVA Network of Research on Tree Physiology **S6 -** European Network for Research into Forest Ecosystems.
1993 Helsinki Ministerial Conference Resolutions	**H1 –** General Guidelines for the Sustainable Management of Forests in Europe; **H2 –** General Guidelines for the Conservation of the Biodiversity of European Forests; **H3 –** Forestry Cooperation with Countries with Economies in Transition; **H4 –** Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change
1998 Lisbon Ministerial Conference Resolutions	**L1 –** People, Forests and Forestry – Enhancement of the Socio-Economic Aspects of Sustainable Forest Management; **L2 –** Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management.
2003 Vienna Ministerial Conference Resolutions	**V1:** Cross-Sectoral Co-operation and NFPs **V2:** Economic Viability of SFM **V3:** Social and Cultural Dimension of SFM **V4:** Forest Biological Diversity **V5:** Climate Change and Sustainable Forest Management in Europe
2007 Warsaw Ministerial Conference Resolutions	**W1:** Forest, Wood and Energy **W2:** Forest and Water
2011 Oslo Ministerial Conference	**O1:** European Forests 2020 **O2:** Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe

The decision to prepare 'Forest Convention' that has a 'legal binding' was issued also at the 6th Ministerial Conference held in Norway in June, 2011 (Belen, 2011). At this point it is necessary to mention international agreement for the importance and clarity of the subject.

3. The Notion of International Convention in the Context of International Law And Turkish Law System

International law is an outcome of common profits of states, as a result, it is necessary to admit that the importance of international law will increase parallel to today's conditions where international requirements and solidarity have gradually increased, national boundaries have started to exceed. As long as International public policy being carried out beyond national public policy, it enforce any national policies at any level and lead the states to arrange their systems, policies and legislative arrangements in legal system as well as in any other areas by revising and updating them continuously and by biding legal issues, institutions and relations to rules and conditions agreeable to international legal norms (Doğan, 2006).

Although international law and domestic law is analyzed in the doctrine from various aspects and especially many studies has been carried related to the international law orders in domestic law orders, it is understood that the theoretical and positive aspects of the question on how domestic law orders open to the effects of international law is still remain unclarified (Can, 2009). Today the appearance of Turkish law is that domestic law and international agreements that we are signatory party cause two different disunited and incompatible form (Akipek, 1999).

International legal system has a distinctive impact on the domestic law order (Koçak, NA). However, being a party to an international convention of a state means a voluntary process. Besides that any state could not force to be a part of an agreement, it is assumed that the state could approve the agreement only if the conditions are equal after examining what charges and obligations he will accept and what kind of authorities he will assigned to them in exchange for the benefits he obtains in addition to the issues that what kind of profits he could obtain from the convention. If a state approves an international convention, it means that he has the minimum required criteria or better, he has the opinion that he aims to go beyond them (Akipek, 1999).

The importance of the international convention for Turkish domestic law has increased when the 1961 Constitution came into force. The articles 'the international agreements put into force orderly have the force of law and for them 'no one can appeal to the Constitutional Court claiming unconstitutionality' have an important role in this increases (Aybay, 2007). It

can be clearly understood from the interpretation of the 90th article in the Constitution of 1982 in which the 65th article of Constitution of 1961 adopted exactly in the same way (Akipek, 1999), agreements have the impact of law in Turkish law system and are applied directly (Koçak, Tarihsiz). The only exception is the agreements on the issues mentioned in 15th, 16th, 42nd and 92nd articles of the Constitution of 1982 (Tunç, 2000).

Koçak (undated) summarizes the natural outcomes in 6 items below pointing out that states have to obey the agreements on which they put signature otherwise it will bring responsibility, International agreements are parts of domestic law.

i. International conventions are applied automatically without any necessity for regulations.
ii. No one can appeal to the Constitutional Court claiming international convention as unconstitutional, even so it is applied.
iii. The international convention will be applied even if it is against the legislations that have been come into force after itself.
iv. International agreements can be canceled or amended according to the International law Orders saying that international convention are equal to the Act does not mean it can be replaced with the Act.
v. An approved international convention does not impede TBMM (Grand National Assembly of Turkey) to legislate a regulation on the same issue but in contradiction with the agreement. That leads a responsibility for the state in the international platform but it is a natural consequence of sovereign right of him.

In today's conditions of globalization increasingly gained intensity, it becomes inevitable for international community members to behave compatibly and in common with each other with close cooperation in the context of regulating, taking precaution and analyzing the issues, events and problems that have universal qualification and content within the intergovernmental relations (Doğan, 2006). The next step after the approval of the convention will naturally be absorbing the requirements of the convention into the applicable legislation considering which part of the domestic law it is related to and harmonizing the national legislation with the international convention (Akipek, 1999). Thus, it is clear that harmonization of the legislation is necessary within Forest Convention that is likely to be signed.

4. Forest Convention: Weaknesses, Strengths, Threats and Opportunities

In order to identify the weaknesses, strengths, threats and opportunities of a convention and national forest legislation, first one should understand clearly the goal of the convention. For

that purpose, both the goals identified as eleven items under the title of VI. Objectives of Legally Binding Agreement on Forests in Europe[6] in 2010 and five items under the title of objectives in article 2 of Forest Convention[7] in 2013 studied to reach them are given as tables below.

Table 2. Objectives of Legally Binding Agreement on Forests in Europe in 2010

Objective -1	Ensure multiple forest functions and the lasting provision of goods and services, in all European forests through sustainable forest management
Objective -2	Maintain and enhance forest resources in Europe, their health, vitality and resilience, and their adaptation to climate change
Objective -3	Protect forests against natural hazards and human induced threats,
Objective -4	Enhance the contributions of forests to the mitigation of climate change through carbon sequestration and storage and use of wood for substitution of non-renewable materials and energy
Objective -5	Maintain and enhance the productive potential of European forests for providing renewable raw material and biomass in a sustainable manner,
Objective -6	Halt the loss of forest biodiversity in Europe,
Objective -7	Create enabling conditions for forests owners and the sector at large to enhance the competitiveness (economic functions) of European forests and to contribute to a green economy, employment and the development of rural and urban areas,
Objective -8	Contribute to the quality of life through the strengthening of social and cultural, as well as economic and environmental functions of forests in Europe,
Objective -9	Maintain and enhance the quantity and quality of environmental services from European forests in a sustainable manner,
Objective -10	Reduce, with the aim of eliminating, illegal logging and associated trade in timber and timber products,
Objective -11	Improve the forest knowledge base through research, information sharing and communication and enhance cooperation on forests and participation at local, national, regional and global levels.

[6]http://www.foresteurope.org/docs/other_meetings/2010/WGLBA/1_THENONPAPERFINALLBA1October2010.pdf

[7]http://foris.fao.org/static/forestnegotiations/DOC2_EN_end_of_INC4_Warsaw.docx

Table 3. Objectives of Forests Convention in 2013

Objective -1	To reinforce and strengthen the implementation of sustainable forest management and to ensure multi-functionality of forests and the long-term provision of a broad range of forest ecosystem services and goods derived from them
Objective -2	To enhance the role of forests and forestry in contributing to solving global challenges
Objective -3	To provide a framework for fostering national actions and international cooperation
Objective -4	To maintain, protect, restore and enhance forests, their health, productivity, biodiversity, vitality and resilience to threats and natural hazards, and their capacity to adapt to climate change as well as their role in combating desertification
Objective -5	To ensure that forests contribute effectively to sustainable development, livelihoods and the well-being of society by providing economic, environmental, cultural and social benefits at all levels

With reference to the objectives appeared in the Forest Convention that is stated in the Table 3, regulations[8] set the general framework of the national forest legislation and have already been in force are analyzed comparatively and qualifications of national legislation is studied over the convention likely to be signed. Here is a figure showing comparison.

[8]National Afforestation and Erosion Control Mobilization Law No. 4122, National Parks Law No. 2873, Forest Law No. 6831, 4-Law on Organization and Duties of the General Directorate of Forestry, 5-Decree-Law No. 645 on the establishment and duties of the Ministry of Forestry and Water Affairs, The Constitution of the Republic of Turkey.

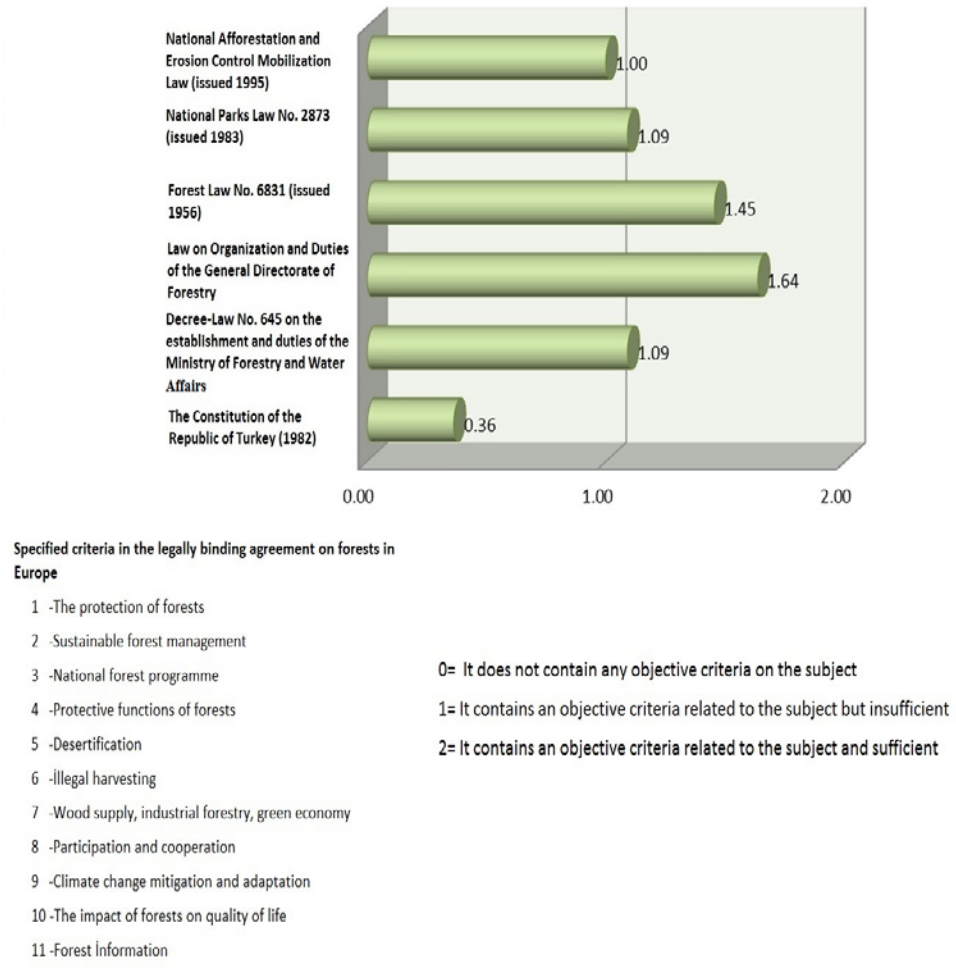

Figure 1. Comparison of National Forest Legislation with the Forest Convention in terms of objectives (was developed from Coşkun, 2011)

When generally reviewed considering the Figure 1. National Forest Legislation in present day is insufficient over the five target criteria mentioned in Forest Convention. One of the reasons behind this is mostly that the Regulations represent the conditions of the period they were prepared and most of them were prepared considering the requirements of that period so they are insufficient for today's requirements. It also makes it difficult for developments and practices experienced in forestry on a global scale to be reflected coordinately in the Legislation.

As it can be understood from the Figure 1, the Constitution of 1982 with 0,36 points is the most insufficient legal arrangement over the target criteria of Forest Convention. However, during the assessment, one should consider that constitutions are only a main framework for arrangements and leave the detailed regulations to the relevant legislations. Thus the consequences should not be thought as negative.

At the end of the assessment, it is concluded that the provisions in National Afforestation and Erosion Control Mobilization Law, National Parks Law, Forest Law, Law on Organization and Duties of the General Directorate of Forestry, Decree-Law No. 645 on the Establishment and Duties of the Ministry of Forestry and Water Affairs have similar features with the target criteria but they still cannot meet them entirely. Yet, it is appeared that *Law on Organization and Duties of the General Directorate of Forestry (OGM)* with 1,64 points that is amended with Decree-Law No:645 of 29.06.2011 is the closest legal regulations to meet the five target criteria. It is thought that the following elements have influenced the results:

a) The date of the regulations is close to the Convention.

b) General Directorate of Forestry (OGM) is one of the organizations that have an active role preparing (working on) the Forest Convention and Turkey is also elected to the membership for The Intergovernmental Negotiating Committee within the decisions taken at the Ministerial Conference held in Oslo on 14-16 June 2011.

The most important factor that can be considered as a threat to the Turkish National Forest Legislation is the definition of **'forest'** under the title of **'Terms and Definitions'** of the Convention. Even though terms and definitions are balanced with the actual content of a possible legal agreement, it is clearly stated in that "*Generally, definitions such as widely used definition of United Nations green economy and the definition of climate change are built upon existing co-decision rules as far as possible. If a decision is taken as a subject for a negotiation, definitions can be improved and then defined for the purpose of the agreement"*. Moreover, when Article 1 and Article 3 within the title ' Articles added to the agreement' are considered together, it appears that if ¾ of the parties at the meeting approve and accept the forest definition, Turkey will have to keep to the majority even if he objects to the definition mentioned at the end of the negotiations. Today, in the 2nd Article under the title of 'Terms and Definitions' of the draft paper[9] that discussed at the Intergovernmental Negotiating Committee meeting that held in Bonn, it is clearly stated that that the definition will also be one of the international definitions generally used in the reports on forest and that party countries will apply it to their national legislation. In the document[10] with the title of 'samples of terms and definitions' on the web[11] of the Intergovernmental Negotiating Committee, forest is defined as "non-agricultural and nun-urban lands larger than 0,5 hectares and a canopy cover of more than 10 percent". Yet, forest definition shaping our forest

[9]http://foris.fao.org/static/forestnegotiations/Document2_INC2_EN.DOC

[10]http://www.forestnegotiations.org/INC/INC2http://foris.fao.org/static/forestnegotiations/Examples_of_Notions_and_Definitions.pdf

[11]http://www.forestnegotiations.org/

legislation is stated in 1st Article of Forest Law No. 6831. The forest definition has a great importance because forest cadaster carries their studies on qualification process considering legal forest definition, and the property process comes after the qualification process, that is identification of the owner of the forestlands. One can see in the Law that forest definition is divided into two parts as 'forest' and 'non-forest' then forestlands are defined considering the forest definition in the paragraph 1 in the Law while non-forestlands are organized as 11 'bends' in paragraph 2 (Gençay, 2012). Hence, when national and international 'forest' thresholds are compared, there is no threshold as **'minimum area'** for the state forest according to the Article 1 in Forest Law with No. 6831. However, it is stated in Clause G of Article 1 of the same Law that 'minimum forestland' threshold for 'possessed lands non-contiguous to forest' must be 3 hectares. This threshold differs as minimum 0,05-1,0 hectares in the United Nations Framework Convention on Climate Change (UNFCCC), as 0,5 hectares in the Convention on Biological Diversity (CBD), and as 0,5 hectares in the Forest Resources Assessment (FRA). Similarly, in the National Forest Inventory, it is stated between 1-10 % for 'degraded' forests, and between 11-100 % for 'normal' forest areas. While it is stated 10-30 % in UNFCCC, 10 % in CBD, and 10 % in FRA (Yegül, 2006).

5. Conclusion

It is obvious that the Forest Convention will bring new dimensions for the sense and system of forestry with the innovations brought by it. Nevertheless forest definition is appeared the most important factor and the one that will probably cause too many debates, when the subject studied in terms of National Forest Legislation. It means that any possible forest definition may even cause to renew the boundaries of forest regime in Turkey. Private forest debates that have occurred since 1937 will especially revive when the Forest Convention becomes a part of national legislation. The reason is that 3 hectares threshold (sub-limit) has already necessary for a land to be considered as forest, but with the Convention, this limit could be decreased to 0,5 hectares and it means that smaller forestlands will necessarily be included in forest regime. Such a practice will require for small forestlands to be accepted as private forest although they are among the private property in land. That will not only lead to new conflicts on private forest ownership between state and society, but also it will be a negative impact on forest cadaster, still under development.

The Convention contains many opportunities in the economic and social aspects on the condition that especially adaptation to climate change, carbon sequestration, biodiversity, green economy among the five targets stated in Table 3 improved well. For example, economic value predicted only for the carbon market is pronounced as 1 trillion dollar (Khan, 2010) And it is known that economic size of the forest carbon market among global carbon market is 178 million dollar in 2010 The forest carbon market has become a market with 432

million dollar economic value that effects 49 different countries among various regions of the world, and 7,9 million hectares of forestlands (Diaz *et al.*, 2011). Thus, this issue contains many opportunities.

Forest Law No: 6831 has been amendment many times since 1956, and in spite of handling the forests as a whole, it has rapidly lost its influence over the forests as a result of the secondary regulations on it's over ground and underground sources. Yet, it will be updated in the light of Forest Convention considering the necessities of the time or it can be a base to a new forest law.

To sum up, although it will bring many debates in terms of national forest legislation, Forest Convention is a chance for its opportunities, harmonization with Europe and reviewing the national forest legislation. Furthermore it will be a reference point to overcome current problems in the sense that it will guarantee the rights of future generations over forest resources.

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Forest sector reform and forest service in Albania

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Abstract

Since 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 the decentralization of forest and pasture governance, conceding responsibilities to rural communities on forest and pasture management in order to fulfill 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, it is required a balance of strategic

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objectives realization 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, it is needed a sustainable organizational structure aiming at not only the strategic objectives fulfillment but also functional duties.

Keywords: reorganization, reform, strategy, forestry service, forest legislation.

1. 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 and 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 favorable 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 poor live in rural areas). Albania has had 65 municipality and 316 Communes with over 2800 villages. Each commune has had an average population of 6500 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 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

Two both 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.

2. 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	Area (ha)	%
A	*Total forest & forest land area*	*1,498,957*	
1	*High forests*	*294,957*	*19,68*
1a	*conifers*	*84,461*	
1b	*broadleaves*	*210,496*	
2	*Coppice*	*405,016*	*27,02*
3	*Shrubs*	*241,724*	*16,13*
4	*Open Forest*	*557,260*	*37,17*
B	*Pasture*	*480,777*	

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 25000 tons with a value of US$ 35-40 million are being exported as average 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.

Photo 1. Degraded area

3. The situation before and during 90-s

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 misuse, 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 dropped considerably since the mid-1980s.

So we can point out that before and during 90-s 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 postures.
- 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 area.

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.

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.

4. Institutional 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 GDFP, 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.

5. 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.
So 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 fulfillment 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 6232256 ha forests and 140000 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 there were needed about 13 years to be realized. During the transfer process there have been noticed 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 & 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: **"Albanian Communal Forestry is a good mechanism for forest sustainable management".**

Photo 2, 3. Forest stand and territory well managed in Melan Commune

But, after a new territorial reform approved by 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. So, all this work that has 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 the environmental minister declaration (Dec. 2014) forestry service will be part of municipality administration.

6. Protected areas - 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 covers now approximately 16% 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 until the year 2020 the PA-s network will cover about 25% 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-centers, bio-corridors, and rehabilitation areas and buffer zones.

Establishment of a protected areas administration and staff training is the other 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.

7. Issues to be still 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.

8. Recommendations

- To complete the legal framework for the forests and pasture lands to the ownership of LGU 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;
- Establish an effective extension service for community forests and pastures;
- Employment of foresters in forest and pasture sector and not party militants because forestry is a specific activity and requires professionalism for a better management;
- Establishment of a forest service structure with clear tasks, solid and compact and not separated as a structure, not in the function of forest activities. Based on the Albanian experience, these separate structures do not interact with one another, since they need more material, financial and human expenses.

9. Analysis of Institutional and Legal Reform of Albanian Forest Service at national and local level.

Strategic lines	*Objectives*	*Comments*
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 deals 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 have 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.

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Importance of Forest Roads for Environmental Friendly Forestry

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Abstract

Forest resources of the Republic of Serbia are managed on the principles of sustainable development what originates from the Constitution of the Republic of Serbia. According to the National Strategy of Sustainable Utilization of National Resources and Goods ("*Official Gazette of the Republic of Serbia", no. 33/12*) forests represent irreplaceable factor in solving the problem of preservation, protection and promotion of quality of environment, not only in regional limits, but with their eco-systematic services achieve positive global effect on all environmental components. Increasing contribution of forestry sector to economic and social development of the Republic of Serbia means also rising and maintenance of optimal quality and density of forest roads, as well as accessory infrastructure, because of the sustainable forest management carrying out and the provision of social and cultural needs of society.

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 economic branch. Law on forests *("Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.)* from year 2010, in article 8 defines forest roads as objects, roads built mainly because of forest management activities carrying out, and especially for protection of forests from fire. According to the same Law (article 64) technical infrastructure is planned, built and maintained and used in the manner that does not endanger: 1) water springs and water courses, 2) habitats important for survival of wild flora and fauna species, 3) the process of natural rejuvenating in forests, 4) cultural and historical heritage, 5) other universal functions of forests, 6) soil stability and does not cause erosion and torrents.

Human activities in forestry sector can have significant impact in total concentration of gases with greenhouse effect in the atmosphere, so forests have very significant ecological functions. In this paper an interesting case with the old oak tree that makes problem to constructors of the highway in our country is also presented.

Some of our tasks in the future are: to promote quality of natural potentials, development of green technology, work on procedures of „green“ construction, especially of forest roads, but also to provide for and strengthen legal and institutional frameworks for support to the protective functions of forests.

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Keywords: forestry sector, forest roads, sustainable forest management

1. Introduction

The world's forests are rapidly disappearing and fragmentation of forests poses a serious threat to plant life and animals, and the existing microclimate is being changed. Climate change threatens also the world's cultural heritage. Reforestation is one of the most effective ways of combating climate changes affecting the Balkans too. In the framework of afforestation strategy in the last 4 years in Serbia about 500 hectares is afforested with different kinds of trees. While in Serbia 30% of the territory is afforested, in Belgrade under the trees is slightly more than 15 percent of the territory. How important is afforestation in the urban environment, it can be seen from the fact that one hectare of forest per year binds 15 tons of carbon dioxide and releases 11 tons of oxygen and filters 50-70 tons of dust.

Increasing contribution of forestry sector to economic and social development of the Republic of Serbia means also rising and maintenance of optimal quality and density of forest roads, as well as accessory infrastructure, because of the sustainable forest management carrying out and the provision of social and cultural needs of society.

2. The case of Serbia – sustainable development and forest roads

There is nobody in this country who has not heard of oak - a record[2], the sacred tree on the Corridor 11, and appeals for the salvation of the oak were coming also from abroad. While the road was traced it has not been taken into consideration, and then a mass protest was held under the oak tree in order to protect it. The red oak is known by its longevity. In the monograph of the village in which it is located there is a record that it is about 450 years old, i.e. 260 years older than the church of Savinac, founded by Prince Miloš in 1819. This tree has become a current political issue and it arrived also in the National Assembly. The Secretary-General of the European Green Party has called on the Government to choose a different route for the highway.

Forests and forest land in the Republic of Serbia cover around 2.5 million hectares, what represents about one third of the territory of the Republic of Serbia. Forest resources of the Republic of Serbia are managed on the principles of sustainable development what originates from the Constitution of the Republic of Serbia.

[2] Oak is located lonely at about 1000 meters away from the town Savinac. It is over 30 meters high, and the volume of the tree is 8.5 meters.

Recognizing that the current level of production and technological processes in forestry, due to technical-technological and organizational anachronism and insufficiently developed forest road network affects the difficulty in forest management, **Strategy of forestry development**[3] was adopted in 2006 with basic aim of preservation and amelioration of forests state and development of forestry as economic branch.

Government adopted in 2012the **National Strategy of Sustainable Utilization of National Resources and Goods**[4] according to which forests represent irreplaceable factor in solving the problem of preservation, protection and promotion of quality of environment, not only in regional limits, but with their eco-systematic services achieve positive global effect on all environmental components. According to this Strategy forest road is an integral part of the forest, classified as the forest, while the public roads through the forest are categorized as urban land.

Forest Administration, as an administrative body within the Ministry of Agriculture, Trade, Forestry and Water Management, in the Republic of Serbia performs state administration and professional tasks related to: forestry policy; forest conservation; promotion and utilization of forests and wildlife; implementation of protection measures of forests and wildlife; control of seeds and seedlings in forestry, as well as other duties prescribed by law. Forest Administration also approves and funds projects related to reforestation, improving habitat conditions, the production of seeds and seedlings, nurseries, construction of forest roads for afforestation and fire protection, as well as scientific projects.

Public Enterprises "Srbijašume" and "Vojvodinašume" are organized at three levels: Directorate-General, forest farms and forest administrations. The main activities of public enterprises are also the design, construction and maintenance of forest roads, parks and green recreational areas and other facilities for forest management.

Law on forests[5] from year 2010, in article 8 defines forest roads as objects, roads built mainly because of forest management activities carrying out, and especially for protection of forests from fire. According to the same Law (article 64) technical infrastructure is planned, built and maintained and used in the manner that does not endanger: 1) water springs and water courses, 2) habitats important for survival of wild flora and fauna species, 3) the process of natural rejuvenating in forests, 4) cultural and historical heritage, 5) other universal functions of forests, 6) soil stability and does not cause erosion and torrents. According to article 65, paragraph 1. of this law optimal openness of forests to forest roads is

[3]"Official Gazette of the Republic of Serbia ", number 59/2006.

[4]"Official Gazette of the Republic of Serbia", no. 33/12.

[5]"Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.

established by the development plan, and planning and construction of forest roads is worked out in detail by the program of construction and maintenance of forest roads, that is integral part of development plan, as well as by bases and programs.

According to article 1 of the **Regulation on conditions for utilization of forest roads**[6] Public Enterprise (PE) for Forest Management "Srbijašume", as a user of forest land owned by the state and the holder of the authorization referred to in Article 52, paragraph 2 of the Law on forests, by this ordinance regulates a number of questions on which the functional durability of forest roads, the rationality of their maintenance and Road Safety on them depend on, such as: - categorization of forest roads - general and special conditions for the use of forest roads by other enterprises, legal entities and citizens (hereinafter referred to other users), - specific traffic rules, restrictions and prohibitions on forest roads. On the basis of the authority from the Law on Forests and this Regulation, PE "Srbijašume" has the following rights and obligations: 1. to enable other companies, legal entities and citizens to use forest roads under the conditions laid down in this Regulation; 2. to inform other users in the media and in other ways about the conditions under which they may use forest roads; 3. to maintain forest roads in a way that for the needs of forest management allows secure traffic on them; 4. to restrict or suspend traffic on forest road in all cases when: traffic safety is endangered, when it is necessary to protect specific road (or part thereof), or when that require breeding and forest management or environmental-protective measures in a particular forest site; 5 to determine the price list of compensations for the use of forest roads; 6. to establish a way of achieving compensation for damages that participants do in traffic to: forest roads, road structures, trees beside the road, forest products or the environment, in cases when the fee is not realized in the proceedings before the competent court.[7]

Forest roads are divided into two categories: 1. The basic road network consists of forest truck roads, as unclassified roads (forest roads), which may be with: - constructed roadway ("hard ways"), - undeveloped roadway ("soft roads") or - combined roadway (part of the route with constructed and part with undeveloped roadway). 2. Supplementary road network consists of tractor roads.[8]Forest roads in PE "Srbijašume" are its fixed assets. They are designed and constructed in accordance with the Guidelines for the design and construction of forest truck roads, the act established by the Department for the use of forests (June 1993,

[6]"Official Gazette of the Republic of Serbia", no. 22/98.

[7]Article 2 of the Regulation on conditions for utilization of forest roads, "Official Gazette of the Republic of Serbia", no. 22/98.

[8] See: article 4 of the Regulation on conditions for utilization of forest roads, "Official Gazette of the Republic of Serbia", no. 22/98.

with subsequent amendments)[9].Taking into consideration the density and the way of traffic circulation, forest roads are designed and constructed with one or two lanes[10].

According to article 25 of **Regulation on conditions for utilization of forest roads**[11] users of forest roads are obliged to compensate to the Public Enterprise "Srbijašume" every damage on the road, objects on the road or by the road, trees or environment done by their vehicle, works or car maintenance or repair, disrupting of other forest roads users, throwing around or losing oil products, chemicals, wrapping or other things and materials.

3. Environment and forest roads in Serbian legislation

Law on forests[12] adopted year 2010 in the Republic of Serbia provides for conditions for sustainable management of forests and forest land as the good of general interest, in the manner and in the volume that permanently maintains and ameliorates their productive capability, biological diversity, capability for regeneration and vitality, and ameliorates their potential for climate changes mitigation, as well as their economic, ecological and social function, without causing damage to neighboring ecosystems in the process. According to article 10, paragraph 4 of the Law on forests by the change of purpose of forests are not considered pure deforestation works: construction of power lines (electrical, telecommunication and cable cars) as a function of forest management; construction of forest roads and other facilities for forest management. Clear cutting can be done in order to open forest passages, electric lines, communication lines, construction of forest roads, ski lifts and other facilities for forest management and which ensure the promotion and use of all forest functions, if this is in accordance with the forest management plans[13].In the forests can be built facilities in accordance with forest management plans and specific regulation governing the field of wildlife and hunting[14].

Forest roads are used for purposes of forest management, but exceptionally forest roads can also be used for other purposes under the conditions specified by the user, owner of forests that are managed in accordance with the base, or local government for roads in the forests of owners managed in accordance with the program. Forest roads can also be used for sport

[9]Article 5 of the Regulation on conditions for utilization of forest roads, "Official Gazette of the Republic of Serbia", no. 22/98.

[10]Article 6 of the Regulation on conditions for utilization of forest roads, "Official Gazette of the Republic of Serbia", no. 22/98.

[11]"Official Gazette of the Republic of Serbia", no. 22/98.

[12]"Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.

[13]Article 9 of the Law on forests, "Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.

[14] See: article 63. of the Law on forests, "Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.

competitions involving motor vehicles under the conditions and in the manner determined by the base or programs.[15]

According to the **Law on fire protection**[16] in performing the inspection supervision the inspector has also the authority to order that all forest roads and passages are maintained in a state that allows daily access for fire fighting vehicles[17].

According to the **Nature Protection Act**[18] in order to inform, assist and control visitors and collect fees for the use of a motor vehicle in a protected area, on a public road through the protected area may be established entrance station with appropriate facilities, equipment and personnel on the basis of spatial, i.e. urban plan and management plan for the protected area and with the approval of the manager of public road. Entrance station can have objects, tools, equipment and persons for the purposes of maintaining of the public road and traffic safety. When at the entrance station the bills are charged, manager of the protected area is obliged to organize the collection so as to ensure the flow of vehicles with minimal traffic congestion, in accordance with traffic and technical requirements, as determined by the public road manager in the process of issuing approvals[19].

PE "Srbijašume" can temporarily or permanently prohibit to the individual users of forest roads the use of certain road direction if it finds that they do not observe the regulations on traffic safety, do not respect the provisions of this regulation, do not respect the limitations, restrictions and regulations on the specific conditions for the use of forest roads and if they avoid paying fees for the use of forest roads[20].

Owner, i.e. user of the forest shall regularly maintain forest roads. It is forbidden in the woods without a license of the owner, i.e. forest user: the movement of motor vehicles out of roads that are intended for this purpose, except for official purposes; movement in confined and restricted areas, roads, fenced hunting grounds, experimental and business premises; moving on surfaces subjected to forest works and afforestation, harvest, construction, hunting

[15]See: article 66 of the Law on forests, "Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.

[16]"Official Gazette of the Republic of Serbia", number 111/2009.

[17] See: article 78 of the Law on the fire protection, "Official Gazette of the Republic of Serbia", number 111/2009.

[18]"Official Gazette of the Republic of Serbia", number 36/09, 88/10, 91/10.

[19] See: article 68 of the Nature Protection Act ("Official Gazette of the Republic of Serbia", number 36/09, 88/10, 91/10).

[20]Article 12 of the Regulation on conditions for utilization of forest roads, "Official Gazette of the Republic of Serbia", no. 22/98.

and more.[21]A fine of 100,000 to 1,000,000 dinars shall be imposed on a legal entity if: - uses and maintains forest roads contrary to the provisions of Article 66, paragraph 1 to 3 of this Law; - uses forest roads for sports competition contrary to Article 66, paragraph 4 hereof; - does not keep the cadaster of forest roads used for forest management purposes (Article 66, paragraph 5).[22]

In accordance with the **Regulation on the Determining the Basis of Water Management of the Republic of Serbia**[23] it also is necessary to perform adequate control of diffuse sources of pollution, primarily from agriculture (fertilizers and pesticides), from urban areas (rain water), from forestry (forest roads, timber harvest, fire, pesticides), from traffic (oily substances, lead), from landfill of waste and septic tanks, as well as traffic control and the use of hazardous substances. According to the **Regulation on conditions for utilization of forest roads**[24] in forest truck roads it is prohibited among other things: - spillage, leaving or throwing waste and other materials, - discharge of waste and other waters, or preventing their draining out, - performing other actions that may damage the road, interfere with traffic and performing tasks in the field of forest management[25].

According to the **Regulation on the forest order**[26] passages, export routes, accessory warehouses, bridges, forest roads, drainpipes, drinking water resources and protective fences for prevention of damage caused by game, are put in order no later than three months from the completed harvest, manufacture, i.e. export of wood assortments[27].

4. Conclusion

Lately, experts have begun to oppose the so-called "Unnatural", artificial accumulation of trees as a long-term solution. Today the Chinese government in partnership with the United Nations is building a green belt along the Silk Road, caravan routes. In addition to the Great Wall and along the famous Silk Road is being built imposing green wall of 1.3 billion tree seedlings, mostly elm, in the deserts of Gobi and Taklamakan[28], to mitigate sandstorms that

[21] See: articles 51 and 66 of the Law on forests, "Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.

[22] See: article 112 of the Law on forests, "Official Gazette of the Republic of Serbia", number 30/2010, 93/2012.

[23]"Official Gazette of the Republic of Serbia", number 11/02.

[24]"Official Gazette of the Republic of Serbia", no. 22/98.

[25] See: article 16 of the Regulation on conditions for utilization of forest roads, "Official Gazette of the Republic of Serbia", no. 22/98.

[26]"Official Gazette of the Republic of Serbia", no.38/11.

[27]See: article 20 of the Regulation on the forest order, "Official Gazette of the Republic of Serbia", no.38/11.

[28] These are the largest sandy landscapes in Asia.

bring trouble to the north of the country. In this way successfully sandstorms are thinning out. However, the question arises whether this vegetation will survive in deserts.

Human activities in forestry sector can have significant impact in total concentration of gases with greenhouse effect in the atmosphere, so forests have very significant ecological functions. In this paper an interesting case with the old oak tree that makes problem to constructors of the highway in our country is also presented.

Raising and maintenance of optimal quality and density of forest roads with accessory infrastructure in order to carry out sustainable forest management and provide for social and cultural needs of society will also increase the contribution of forestry sector to economic and social development of our country. Some of our tasks in the future are: to promote quality of natural potentials, development of green technology, work on procedures of „green“ construction, especially of forest roads, but also to provide for and strengthen legal and institutional frameworks for support to the protective functions of forests.

Considerations of actual Slovenian forestry reform needs and proposed solutions (2015)

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Abstract

The paper firstly considers the actual Slovenian forestry reform needs, based on previous and current forestry system problems and issues related to implementation of the 1993 Forest law and the 1993 Law on Fund for agricultural land and forests of the Republic of Slovenia. Further, a re-organizational model in form of a state company for management of state forests, as proposed by the Ministry for agriculture, forestry and food within the new draft Law on management of forests of the Republic of Slovenia (being publically discussed in April), is being considered in detail. Additionally, an alternative -shareholding company - model for utilization of state forests, based on public-private partnership, as proposed and advocated by some wood industry sector representatives, is being presented. Last part of the paper assesses suitability of the two models based on key sectorial principles, objectives and criteria. In parallel, also a third- comprehensive public enterprise -model for both, the management of the state forests and provision of (public and paid) forestry services for private forests/ owners, is being presented in comparable way and recommended as an optimum forestry sector reform model, accompanied by other necessary system changes.

Keywords: forest legislation, forestry organization, state forest company, share-holding company under public private partnership, public forestry enterprise, Slovenia

1. Introduction

The Slovenian forest and forestry developments and reform needs, including proposals of possible re-organizational models, had already been presented internationally during previous two years (Ferlin, 2013; Ferlin et al., 2014). Although the reform initiatives started in 2012, until now no any changes in the forestry organizational set-up and/or key forestry system mechanisms have been made. The main reason lies in the changes of two Governments, not bringing their reform attempts to realization. The only - minor - changes of the Forest law (Forest Law, 1993, 2002, 2007, 2010, 2013, 2014, 2015), related to implementation of EU Timber Regulation No. 995/2010 (European Union, 2010) have been endorsed from 2013 until now. These changes included first the regulation (in 2013) and after it (in 2014/2015) the postponement of requirements regarding national traceability of wood origin (by a transport document). The last mentioned followed after a catastrophic ice and snow-brake, which occurred in the whole Slovenia in early 2014. Based on the publicly, politically and

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governmentally very much supportive climate - for rehabilitation of the forests - the competent ministry by that time, i.e. the Ministry of agriculture and environment (MAE), prepared a proposal of a new Law on management of forests of the Republic of Slovenia (Law on public-private partnership, 2006) for endorsement by a rapid procedure. Main objective of it was to establish a new state forest company, which would - apart from management and rehabilitation of state forests – also intervene at the disturbed wood market (by purchasing of wood from private forests). However, as the MAE wanted through this law, on the "helter skelter", to resolve also long-term reorganization of the state forest management function, including abolishment of the concession system, the proposal was not acceptable for main stakeholders, neither for then governmental coalition. Further forestry reform process was then interrupted because of resignation[2] of the Government.

The new Government, established in September 2014, with changed structure of the competent ministry, i.e. back to the Ministry of agriculture, forestry and food (MAFF), of which the minister remained the same, has chosen the forestry reform and the wood industry revitalization needs as their high priority. The MAFF then started, or actually continued to develop the previous proposal of Law on management of state forests.

The aim of the paper is to analyze the current draft Law on management of forests of the Republic of Slovenia (Ministry of agriculture, forestry and food, 2014) with proposed new state forest company model. Apart from it also another actual - share-holding company - model for utilization of state forests, based on public-private partnership (PPP), will be analyzed and compared with the first one. Based on wider forestry sector problems and needs, on which national consensus exists, a comprehensive forestry sector re-organization model - with other changes of the forestry system - will be presented and recommended to the decision-makers.

2. Problems, issues and reform needs

The following key problems of Slovenian forestry system have been identified already in 2012 (Ferlin, 2013): (a) insufficient state budget financing for forestry activities which are in public interest, particularly of the Public Forestry Service (PFS) within the Slovenia Forest Service (SFS); (b) not acceptable division of the state forest management function among the Fund for agricultural land and forests of the Republic of Slovenia (FALF)[3] as state forest

[2] Not really because of the forestry issues.

[3] The FALF as public institution (established in 1993) for management of agricultural land (by leases) and forests (by concessions) of the Republic of Slovenia has until now been dominantly governed by the agricultural sector, with non-sufficient influence of the forestry sector. Its forestry section had from the beginning less than 10 forestry staff only, while currently it has les then 30 of them. The technical services for preparation of the

manager and the SFS as state forest management service provider; (c) still problematic implementation of current state forest concession system and anticipated expiration of concession contracts (in 2016) and (d) non-competitive domestic wood processing industry. Apart from these, currently also (e) non-favorable status of the SFS (as public institution) in terms of efficient enhancement of private forest management can be added as serious forestry problem and issue. The problems under above points b), c) and e) cause unsustainable relations among the state forest triangle's actors (the FALF, the SFS and the concession holders) consequently leading also to a too low economic effectiveness for the state as forest owner. All the aforementioned problems and issues present also currently actual forestry reform needs.

From wider sectorial aspects, also the following forestry system issues and reform needs should be listed: (g) introduction of responsibilities of bigger forest owners, including the state, for financing certain forestry service activities, in particular the forest management planning and marking of trees for felling, which are currently provided *gratis* by the SFS for all forest owners; (h) redefinition of payments from state forest incomes to municipalities, which now amount to 7% of wood production value at the road side and (i) relief of financing of the Slovenian denationalization fund (SDF) for purposes of denationalization of forests, which amounts to 10% of the income from management of state forests, and some other issues.

3. Key reform principles and objectives

The leading re-organizational principle of Slovenian forestry sector is based on maintaining the unified PFS within the SFS and supported by all stakeholders. This is the prime principle already from the establishing of the current system in 1993, based on the fact that private (74%) and, among them, very small forest holdings (2.6 hectares on average) largely dominate in Slovenia. The SFS should thus also in future provide all kind of forestry technical (from forest management planning and marking of trees for felling) and extension services for these forests and their owners. The following sub-principles are related to the first one: (a) keeping a unified forest information system; (b) maintaining joint forest management units (FMUs) of state and private forests; (c) elaborating joint forest management plans and (d) keeping joint forester's post at the FMU level. The leading and related principles however require certain specific forestry organizational solutions. In that context, for instance, a usual state forest enterprise performing the forest management and the

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concession (annual) planes have mainly been performed - on contract bases - by the SFS (out of the PFS tasks), which however had no direct responsibilities for operational control of the concession holders. This was actually also a main reason for non-efficient functioning of the whole forest concession system.

forest management service functions (together), is a priory not possible. From the other side, integration of the state forest management and the forest service functions within the SFS as such an enterprise, is possible.

For designing of the forestry reform models, however, the most important is the new governmental Coalition Agreement from September 2014 (Government coalition agreement, 2014), which – respecting the above principle(s) - brings some very concrete objectives in this regard, such as: (a) strengthening the Slovenia forest service (SFS) for more efficient support to forest management; (b) strengthening the Fund for agricultural land and forests of the Republic of Slovenia (FALF) for more effective management of state forests including (eventual) restructuring of the FALF towards a state enterprise; (c) revision of current state forest concession system, particularly towards better supplying of local wood value chains and (d) support to re-establishing and development of the local wood industry. The objectives thus anticipate the strengthening of the current system and institutions, with eventual upgrading of the FALF into state enterprise. No any abolishment, rather than revision of the concession system is expected, mainly with purpose to support of the wood industry. In order to assure political coordination of the forestry reform developments, the MAFF appoints even the state secretary for forestry[4].

4. Method for assessment of the organizational models

Method for assessment of the reform models is based on the principles, objectives and criteria (POC), which have been adapted for the assessment purposes based on the commonly identified problems, needs and objectives (presented in the section 3). According to these, more detailed organizational criteria for assessment of suitability of the models have then designed and presented in the Table 1.

5. Ministry's forestry reform approach and process

Current approach of the MAFF to development of the forestry sector reform is as follows: in the first stage, the re-organization of the state forest management and the establishing of the new company, based on that particular law, should be carried out, while in the second stage, the 1993 Forest law with other system elements would be changed. The main issues, which should be proposed for that change by the MAFF, are not known yet at the moment.

In terms of participation in the development of the current draft Law on management of state forests (2015), it should be noted that its drafting was not participatory, i.e. without engagement of any wider working group. The MAFF actually drafted it alone and then

[4] This important function for forestry did not exist from 2004 onwards.

simply put in the public debate. It is however the fact that the draft – not entering yet here into its content - is very similar to the one from the last year, for which the additional expert assistance might not be needed. The public debate on the draft law lasted for a month and had been concluded already (at the end of April). Based on a communication to the public [12], the MAFF received many written comments and recommendations of stakeholders, which could be summarized as follows: (a) the public forestry sector stakeholders expect a comprehensive forestry reform starting from adaptation of the forest law, instead of current law proposal which deals with state forest management only; (b) the FALF itself expects to take over the role of the proposed company, i.e. to be restructured into it; (c) the forest concession holders expect some clear guaranties for possibility for further execution of the state forest operations and preservation of their jobs; (d) the wood industry and crafts representatives highlight the requirement on integration of the new company in the wood industry chain in order to assure its stable wood supply; (e) representatives of farmers and forest owners point out the preservation of possibility for mountainous farms to carry out the work in state forests, while (f) the municipalities require preservation of their financial benefits from the state forest incomes. This is a spectrum of comments and requirements, which would be very hard to meet within such a MAFF proposal.

In addition, it is worth to mention, that there are quite different and shared views on that law concept among the leading coalition party and the party from which the competent minster comes.

6. Characteristics of the ministry's state forest company model

The draft Law on management of state forests anticipates establishing of a new forest company (of limited liability) for management and utilization of state forests, which would be 100% state owned. The new company should – as per explanations of the proposer – mainly contract the forest operations and perform the selling of wood assortments on its own. For performing of these business functions, about 100 employees (0.7 per 10.000 m^3 of gross annual allowable cut - AAC[5]) should be planned only. Later the company would start to perform also the forest operations on its own, in order to be able to have own control over the norms and costs of forest operations. The needed forest management service activities are further planned to be performed by the SFS and paid from the state budget. For the forestry service activities however about 200 FTE of workers (1.3 per 10.000 m^3 of anticipated gross AAC) should be needed, as per our previous calculations (Ferlin, 2013). This means that altogether about 300 employees (2 per 10.000 m^3 of AAC) would be engaged in performing the forest management and utilization function in state forests.

[5]AAC for the period 2011-2020 for state forests amounts to 1.56 million m^3 per year or 6.5 m^3 per hectare.

Current forestry section of the FALF should be abolished and its forestry (and corresponding supporting) staff and assets transferred to the new company. By such an organizational solution also current concession system, after expiration of the concession contracts (in 2016), would be abolished. For that purpose also appurtenant provisions of the Law on FALF (Agricultural land and forest fund law, 1993, 1996, 2010), regulating the state forest management by concessions, would be removed. From the selling aspect, it is important that ways and procedures, which are obligatory for public bodies, i.e. to choose the best financial offer, are being excluded from the (draft) law, anticipating that the company would be allowed to use wider economic criteria - combining price and other business requirements - for selling the wood to strategic buyers through long-term contracts. The company should however respect the Article 107 of the European Union Treaty (European Union, 2010) regarding the non-allowed state aid, meaning that subsidizing the local wood industry by to cheap wood would not be allowed.

Table 1. Assessment of suitability of the proposed forestry re-organization models based on the organizational principles, objectives and criteria

Principles, objectives and criteria (POC)	**Fulfilment of the POC**		
	State company	**PPP company**	**Public enterprise**
1. The PFS within the SFS remains unified and provides services for all forests	YES	YES	YES
2. System of state budget financing of forest and forestry activities which are in public interest to be revised and improved	NO	N.C.	YES
3. Responsibilities of bigger forest owners, including the state, to (self)finance the PFS activities related to forest management to be introduced	NO	N.C.	YES
4. The SFS as public institution to be strengthened for its efficient enhancement of the forest management and restructured (into a modern public enterprise)	NO	NO	YES
5. Responsibilities of the SFS to be extended to the management of state forests	NO	NO	YES
6. State forest concession system to be revised and used for better supply of local wood value chains	NO	NO	YES
7. The FALF to be strengthened for more efficient functioning and (eventually) restructured to a state enterprise, while its forestry responsibilities to be reduced to disposal of state forests	NO	NO	YES

8. System of financing of municipalities from state forest incomes to be redefined / adapted to new forest utilization model	YES	N.C.	YES
9. Financing of the SDF from state forest incomes for (still non-accomplished) denationalization to be released	YES	N.C.	YES
10. The (new) organization for management / utilization of state forests to obtain the forest utilization right directly by the law	YES	NO	YES
11. Activities of the (new) organization for management / utilization of state forests to be in public interest	YES	NO	YES
12. Activities of the (new) organization for management / utilization of state forests to include the management and the service functions	NO	NO	YES
13. The (new) organization for management / utilization of state forests to have own staff for performing the management and the service functions	NO	NO	YES
14. The (new) organization for management / utilization of state forests to be allowed to procure the forest operations without respecting the public procurement rules	NO	YES*	NO
15. The (new) organization for management / utilization of state forests to be allowed to sell the wood to the best strategic buyers (not only the best financial bidders) to support the local wood industry	YES	YES	YES**
16. The (new) organization for management / utilization of state forests NOT to be obliged to respect the Article 107 of the EU Treaty on the non-allowed state aid	NO	YES*	NO
17. The organization for management of state forests to use the improved concession system for forest utilization to support the local wood processing chains	NO	N.C.	YES

Note:

1) N.C. – not considered.

*2) * in case, the company would be in dominant private ownership.*

*3) ** in case that income from commercial activities will prevail in the turnover.*

7. Characteristics of the shareholding company model under PPP

An alternative model for management, actually utilization of state forests only, as proposed by wood industry representatives (Katalenic, 2015), is based on the PPP through a

shareholding company, to be established under the Law on PPP[6] (Law on public-private partnership, 2006). The private partners in the shareholding company, which would exercise the PPP, should be current forestry concession holders' companies (joined into a consortium), contributing all their – forest utilization related - assets to the company portfolio. And of course, the forestry staff and physical workers. The shareholding company would exercise all the forestry operations and selling of wood on its own. Share[7]of the state as public partner in the company would be equal to the value of granted concession right(s) and assets of the FALF, which would (similarly to the state company model) be transferred to the shareholding company. For performing the state forest utilization function, about 150 employees (1 per 10.000 m^3 of gross AAC) have been planned for the shareholding company by the proposer. All the forest service activities have been anticipated to be performed by the SFS and paid from the state budget also for that model. Taking this assumption into account, altogether about 350 employees (2.3 per 10.000 m^3 of AAC) would be engaged on performing the state forest management and the utilization functions.

Current forestry section of the FALF would also be abolished and its staff transferred to the shareholding company. However, by such an organizational solution, the current - contract based - concession system would only be transformed to the so called status based concession system within the PPP, while the former concession holders would continue their business activities within the PPP relation. From the wood selling aspect, the proposer believes that the shareholding company would not be limited[8] to sell the wood to the strategic partners, based on wider economic criteria. In that way, such a model should be particularly favorable for support to re-vitalization and the development of the local wood industry. In case, the shareholding company would be in dominantly private ownership, it would not be obliged to respect the Article 107 of the Treaty. The PPP could however be granted to such a privately owned shareholding company, based on EU opened public tender only.

8. Suitability of the two re-organizational models

8.1. The state forest company model

The model generally fulfils a lesser part of the listed (general and specific) sectorial POC only (Table 1). It is, however, based on the prime national principle by which the PFS within the SFS would remain unified and also in future responsible for state (and private) forest

[6] As the Law regulates the PPPs for other (than forestry) sectors only, a specific law on such a kind of utilisation of state forests would be indispensable.

[7] The state's share could even be lower than the private one, depending on the value of private assets which would be joint.

[8] This could however be the case, if the shareholding company would be dominantly privately owned.

service function. Regardless of the anticipated company status -which is, under respect of sustainability, profit oriented – the model just anticipates that the SFS further provides the forestry services for *gratis*, i.e. paid from the state budget. At the same time, the (draft) law contributes nothing to the resolving of the SFS's main problem, i.e. critical lack in its state budget financing and consequent limitations in the SFS functioning, which could indirectly endanger the functioning of the very company. The company is thus only expected to utilize the income from state forest management, which would be released of significant forest administration and service costs, e.g. about 4.5 € per cubic meter of *gross* AAC, as per some previous calculations (Ferlin, 2013). That is why such a concept, although the proposer anticipates the forest law (system) changes in a later step, could not be assessed as sustainable for the sector. The company model however fulfils some other, specific criteria. One of them is legal declaration of its activities in public interest (and softening the profit orientation by that), which would enable very important balancing of ecological, economic and social functions of the company and the forests. Because of such a status, the company would receive the state forest management right directly by the law. One of the consequences however is, that it will have to respect the public procurement rules (i.e. the best financial offers) when granting the contracts for performing forest operations. In case of selling of its wood assortments, it should however be free, as other commercial companies. Another good issue is related to preservation of revenues from state forest management, in a kind of ministry's fund.

8.2. The shareholding company model under PPP

The shareholding company model under PPP fulfils lesser part of the listed forestry sectorial POC than the state company (Table 1). The model is, however, also based on the unified PFS and provision of its *gratis* forestry service activities, regardless of the anticipated company ownership, which might even be dominantly in private. The model also does not provide any solutions for resolving the problem of the SFS funding. The shareholding company is thus only expecting to utilize the profit from state forest utilization, among others also on the account of the mentioned *gratis* services by the SFS. That is why, such a concept could be assessed further more unsustainable for the sector. The shareholding company model fulfils only three other, specific POC. These are however related to open market procurement and selling possibilities, which are crucial for the wood industry. However, the PPP which could be granted after an EU open tender only, presents a high risk in terms of getting enabled shareholding company holders in terms of the local wood industry support.

9. Conclusions and recommendations including an optimum reform model

In terms of suitability of the reform models, it could be stated that neither the state forest company model, nor the shareholding company model under PPP could be assessed as suitable and sustainable from the (public and state) forestry sector aspects and its piled problems. Instead of them, a comprehensive reform of the forestry system, both of the public and the state sector, would be needed.

In terms of the re-organization, much more appropriate for the whole forestry sector would be a modern public enterprise model. The model corresponds to almost all the POC, except for two criteria, which are actually favorable for the enterprise's income, but not favorable for the anticipated short-term industry support. Within the public enterprise model, the management of state forests would be entrusted to the SFS (with 700 staff for state and private forests, or 6.0 per 10.000 hectares) which for state forests already provides forest management planning and all other forestry service services, including management planning, marking of trees for felling and FMU foresters. The forestry sector of the FALF would be joint with the SFS. The FALF's forestry staff (about 30 of them, or 1.3 per 10.000 hectares) and appurtenant assets would be transferred to the joint organization. The FALF would however retain its forest land disposal function, together with the agricultural land in state ownership and would function as a state land treasury. By such a model, the biggest - politically induced -organizational mistake from 1992, by which the state forest management function had been separated from its service function and the first one entrusted to the FALF, would be finally corrected. The joint organization, in charge also for provision of public forestry services for private forests, would then be restructured to a modern public forestry enterprise, based on the Forest law change. Such a public enterprise would best enhance also the management with small scale private forests (74% of all forests), providing majority of wood (potentially 5 million cubic meters of gross AAC). In addition, the public enterprise would provide also (paid) forest management services for forest owners, including organization of their forest operations and possibly also wood selling.

As regards the state forest utilization, the public enterprise would use both, the revised concession system and the own selling of wood assortments (at the forest road sites), after the forest operations are performed by contractors. In this way it could optimally balance the forest and wood industry needs. As it would have a public status, it should respect the public procurement rules which are favorable in terms of lowering the forest operations' costs. The public enterprise should however be allowed to sell the wood to the best strategic buyers, i.e. not only the best financial bidders, which would be a favorable instrument for enhancement of the local wood processing chains. Naturally, this would be possible only, if the enterprise would have higher income from the commercial than from the public function, i.e. really be

considered as an economic entity. The later could easily be assured, if the enterprise would use its own selling of wood assortments from state forests up to at least of one third of the AAC. In case of selling the wood to best strategic (local) buyers, the public enterprise should however take account of eventual non-allowed state aid according to Article 107 of the European Union Treaty, meaning that subsidizing the wood industry by cheap wood would not be allowed.

Apart from the described organizational elements, also a number of other issues, such as the system of budget financing of forestry activities which are in public interests, introduction of additional responsibilities of bigger forest owners in terms of own financing the management planning and forest management service activities following by corresponding reduction in the number of *gratis* PFS tasks, revision of the current concession system and relief of payments (from the state forest income) for inability of former forest owners for utilization of their (nationalized) forests, should also be included in the reform contents.

These changes could all be made by amendments to the 1993 Forest law and the 1993 FALF law. No additional Law on management of state forest would be needed. In this way, the current forestry system could be reformed without any chokes for the forest, the forestry institutions and the wood industry supply. Such a reform model would also enable a significant reduction of the state budget financing needs for the PFS – if financing of its forest management services would be introduced through the enterprise - while improving the efficiency of the Slovenian forest management. It is to hope that the forestry decision makers would take these recommendations into account.

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Forestland Restitution Laws in Post-communist Romania

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Abstract

Over the last 25 years the ownership structure of the forest in Romania have been changed dramatically due to the implementation of a politically driven restitution process implemented in three steps, the final one promoting *restitutio in integrum* principle relative to the ownership structure before the communist nationalization of forest back in 1948. The evolution of the ownership structure triggered important changes: reduced role of the state in forest administration, development of non-state forest administration, changes in the institutional and regulation framework. The restitution process is almost finished but it still poses numerous challenges on the shoulders of the old and new players within the forest sector in Romania, in terms of forest administration, institutions and regulations, while the whole sector is struggling to develop a coherent development strategy. Present paper is presenting the restitution process and the subsequent institutional developments emphasizing on the description of the present tenure and institutional status as well on the challenges posed by the dramatic changes in the sector in the last 25 years.

Keywords: forestland restitution, institutional developments, governance

1. Introduction

The transition from a centralized to a market economy triggered significant changes in the forest sector in Romania (World Bank, 2011; Poynton, 2000). Forestland restitution to former owners was the most important process influencing the forest sector evolution during the last 25 years. It has determined dramatic changes in the ownership structure of the forestland and consequently induced large scale changes in the terms of forest governance both from institutional and regulatory point of view (Abrudan et al., 2009; Abrudan, 2012; Ioras et al., 2006; Strambu et al., 2005; Lawrence at al., 2005; Marinchescu et al., 2014). Of course, these

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changes were accompanied by numerous issues: social conflicts (Laurence, 2005) illegal loggings (Strambu et al., 2005), lack of communication (Dragoi et al., 2011) but also by numerous achievements: the development of a new institutional framework, development of a solid private sector in forest administration etc. The doors for private initiatives in forest administration were wide open as and new opportunities for improving the regulatory framework were acknowledged and explored (Abrudan, 2012; Abrudan et al., 2009; Dragoi et al., 2011). However, due to the last 2005 restitution legislation (Monitorul Oficial, 2005) it is foreseen that in several years, the former private owned forests will be restituted and the process will finally be ended (World Bank, 2011). Therefore, the doors for private investments initiatives are now open due to no predictable risks associated with state interference in ownership (Nichiforel et al., 2009; Popa and Niță, 2013). Also, the central authority will have the chance to finally adapt the legislation to the new ownership structure and develop strategic and policy long term frame (World Bank, 2011; Irimie et al., 2009; Popa and Niță, 2013).

2. Romanian forests and forest sector snapshot

Romania's forests cover 6.515 million ha (27.3%) of the country land surface (MECC, 2012), of which 225,000 ha are listed as primary forests (MECC, 2012) and the rest as secondary forests (Figure 1). Forests in Romania are distributed across the mountains (52%), hills (37%) and plains (11%). (World Bank, 2014). Romania is relatively rich in biodiversity with 3,700 plant species. 33,792 animal species have been identified, out of which 33,085 invertebrates and 707 vertebrates[1].

53.3% of the Romanian forests are included in the protection forests functional category, of which 43% serves soil protection, 31% water protection, 5% flood protection, 11% includes forest with recreation functions and 10% are forests with scientific interest. The remaining 46.7 % of the surface is production forest (MECC, 2012). The Romanian Network of Protected Areas (including areas of national importance, reserves, parks and Natura 2000 sites) covers approximately 23% of the land area (Ioja et al., 2010). Regarding the Natura 2000, their designation at the national level has been done based mostly on personal communications and literature sources which were often quite old and the stakeholder consultations were conducted in the country during site designation, with few participants representing mostly categories other than the people living in the areas included in the Natura 2000 sites (Stancioiu et al., 2010). Taking into account the data provided by the National Institute for Statistics, in 2102 in Romania there were 4.14 million ha of SPAs and 3.69 million ha of SCIs (NIS, 2012).

[1]Ministry of Forestry, 2010 as cited in http://www.climateadaptation.eu/romania/biodiversity/

Private forest ownership in Romania spans both small and large, and individuals, indivisible communes, and churches. In terms of forest ownership, this surface is split as follows: 48% are state owned forest; 15% are forest owned by municipalities; 37% are forest owned by the church, indivisible communes; and private individuals or entities (World Bank, 2014).

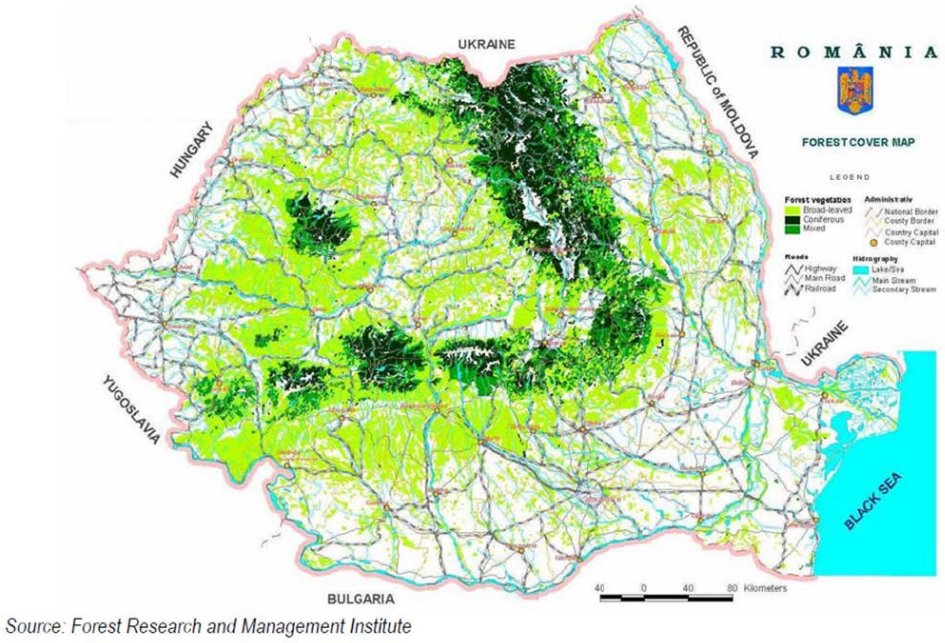

Figure 1. Forest cover in Romania *(Source: Institute for Forest Research and Development Romania)*

The total growing stock is estimated as being 1,347 million m^3 which equates to an average growing stock of circa 210 m^3/ha. The average annual volume increment is 5.4 m^3/ha/year. An estimated 70% of the forest area is available for wood supply compared an EU-27 average of 73% (EC, 2010).

Removals represent only 46% of the total growing stock volume increment. This compares with an EU-27 average of 60%, with only Bulgaria (41%), Cyprus (16%), Denmark (35%), Italy (26%), Luxembourg (38%) and Slovenia (44%) removing a smaller proportion of their overall volume increment (EC, 2010).

The contribution of the forestry sector, including wood industry, to Romania's gross domestic product has varied between 3.5 and 4.5% over the past decade (Abrudan et al., 2009). The forestry sector is a major employer, especially in rural areas although numbers have dropped from 235,000 in 2000 to an estimated 161,000 in 2009. Of this, the furniture industry is the major employer accounting for almost 80,000 followed by wood processing and the National Forest Administration – Romsilva (NFA) (World Bank, 2011). Romania is a net exporter of forest products including sawn wood and wood based panels. The primary wood processing

industry, excluding furniture production, has about 7,500 operational companies, as this sector is especially attractive for small entrepreneurs. Over the past decade there has been significant inward investment in wood processing. However, despite this investment, the sector is dominated by many small companies with inefficient and outdated machinery incapable of ensuring consistent quality. Thus approximately 92% of all wood processing companies are SMEs (World Bank, 2011).

3. Forest ownership changes and institutional developments in Romania

First major change in the forest ownership structure was done in 1948 – the nationalization of forest land. From the moment till 1990 all forest surfaces have been in the possession of the state (Popa and Niță, 2013). During that period there were no institutional boundaries between the 4 functions: regulatory, control, administration/management and ownership. All these functions were performed by the Ministry of Forests and its territorial branches (county directorates and forest districts).

Between 1991 and 2013 there were three stages of forest lands restitution to the former owners that had tenure rights before 1948 (Popa and Niță, 2013) This changes in forest land property and administration have created numerous challenges for both state and private forest administration structures (Marinchescu et al., 2014).

First restitution stage, regulated by the Law 18/1991 (Monitorul Oficial, 1991), restituted to the former owners (only private individuals) forest surfaces up to 1 ha regardless the total area owned before 1948. This restitution stage is a classic case of forest fragmentation and division, around 374,400 ha being restituted to almost 750,000 former owners (Bouriaud, 2001). The restituted forests, located in isolated forest blocks or at the edge of the forests massifs, are, at present, partially recovered through natural regeneration after massive illegal logging following the restitution process in the period between 1991 and 1996 (Giurgiu, 2010). Regulating and administrating those forests is a major issue as long as effectiveness and efficiency of the administration is a far away dream for those surfaces: they are small surfaces, the average of private forestland reached about 0.56 ha (Bouriaud, 2001), basically with low quality stands from production perspective and the cadaster documentation is very often not correspondent with the terrain situation therefore identification of locations is difficult (Popa and Niță, 2013). The low quality of management for small owners and the fragmentation of forest property create yield technical silvicultural problems for forest district activity (Marinchescu et al., 2014).
After the 1991 restitution, part of the control and supervisory functions were performed by NFA as the public authority for forests (ministry) had no territorial infrastructure. This situation created a conflict between the different roles that NFA played as both administrator

of state forests and controller and supervisor of the private forest administration legal compliance. The public authority tried to eliminate this conflict by separating in 1999 the control and supervisory functions through the creation of 7 territorial inspectorates (Territorial Inspectorates for Forest Regime, ITRSV) under the ministry.

Second restitution stage, regulated by the Law 1/2000 (Monitorul Oficial, 2000), restituted forests surfaces up to 10 ha for private individuals and up to 30 ha for other ownership categories and addressed private individuals, communes, collective ownership of communities, church, and other legal entities (Popa and Niță, 2013). The forests claimed by associations legally recognized were *entirely restituted*; the law recognized two types of community's forest, actually two types of associations: *„composesorat"* in Transylvania and *„obste"* in the rest of the country (Weiss, 2011). Both types of forests have the same ancient management rules: the forests are managed commonly by the members of the community; the rights hold by owners inside the collective ownership cannot be sold outside the community; the rights are transferred only by inheritance (Weiss, 2011). In addition to that, all municipalities who owned forests before 1947 were given back the forests (Abrudan, 2009).

During this second stage of the restitution process, the newly created territorial inspectorates have passed through tumultuous evolution: in 2001 their number increased from 9 to 16 and they were moved under the Ministry of Agriculture; in 2003, the World Bank financed Forestry Development Project implemented a wide process to support their capacity building in terms of infrastructure and stuff; in 2003 the inspectorates were disbanded -their control functions and the staff are taken over by the Environmental Guard (under National Authority of Control) and in 2004, 9 Territorial Inspectorates were established mainly for providing extension services and implementation of EU programs. The institutional framework of forest administration have also been dramatically changed by the establishment of the no state/private forest districts (first one created in 2002 followed by a rapid evolution that leaded to the establishment of the Association of Private Forest Administrators in 2004 (Abrudan, 2012).

Third restitution stage, regulated by the Law 247/2005 (Monitorul Oficial, 2005) is the continuation and the completion of the second stage. The law gives the restitution rights up to the surfaces owned before 1948, validating the tenure rights for the difference between the total owned surface and the already restituted surface for all owners' categories (Popa and Niță, 2013). The implementation of this legislation is still ongoing, the restitution processes being not finished yet (Abrudan, 2012). Considering the already created structure of Private Forest Districts (Abrudan, 2012; Bouriaud, 2001), the last stage of restitution process (big surface with low number of owners, Figure 2) benefited from an administration system already in place, therefore, the effectiveness and efficiency of the administration can be

considered as reasonable (Dragoi et al., 2011). From the institutional point of view, after the start of the third restitution stage, the evolution continued: in 2005, the control function were given back to the territorial inspectorates (Figure 3), in 2010, the territorial inspectorates were moved under the Ministry of Environment; the development of the private forest administration also continued – in 2014, 142 private forest districts were managing more than 1,8 million ha of non-state forests (24% of the total forest area of the country (World Bank, 2014).

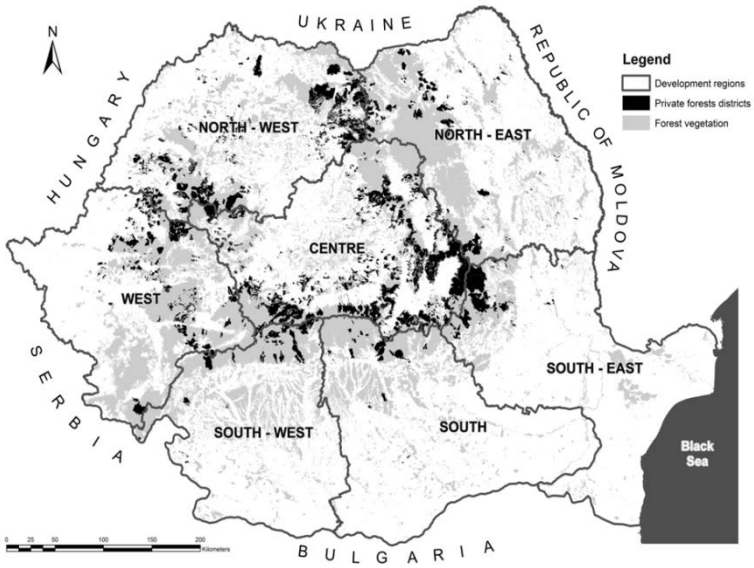

Figure 2. Forest area managed by non-state forest districts in 2012 (Abrudan, 2012)

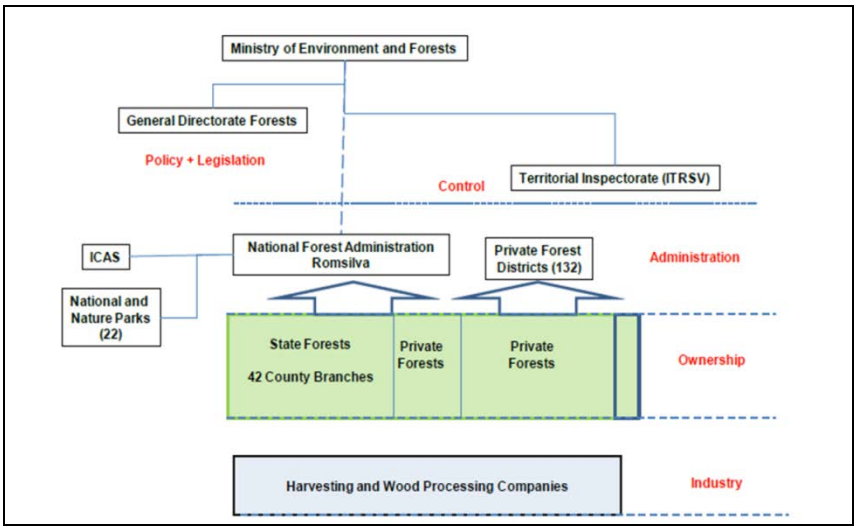

Figure3. Present institutional framework of Romanian Forestry Sector (World Bank, 2014)

Table 1. Forest ownership evolution in Romania (World Bank, 2014)

Ownership type	1948	1948-1991	1991-2000	2000-2005	2005-
State	28 %	100 %	94 %	65 %	48 %
Non-state: ***- Individuals***	23 %	-	6 %	12 %	18 %
***- Legal entities* (towns, villages, communities, churches, companies etc.)**	49 %	-	-	23 %	34 %

The evolution of the ownership structure can be followed in table 1. The result is the creation of two main ownership categories in the Romanian forest ownership structure:

- Small holdings (with surfaces smaller than 10 ha), covering a surface of cca. 850.000 ha, with more than 828.000 owners and
- Big holdings, with surfaces bigger than 10 ha, covering a surface of cca. 2.5 mill ha, with cca. 2200 owners (Figure 4).

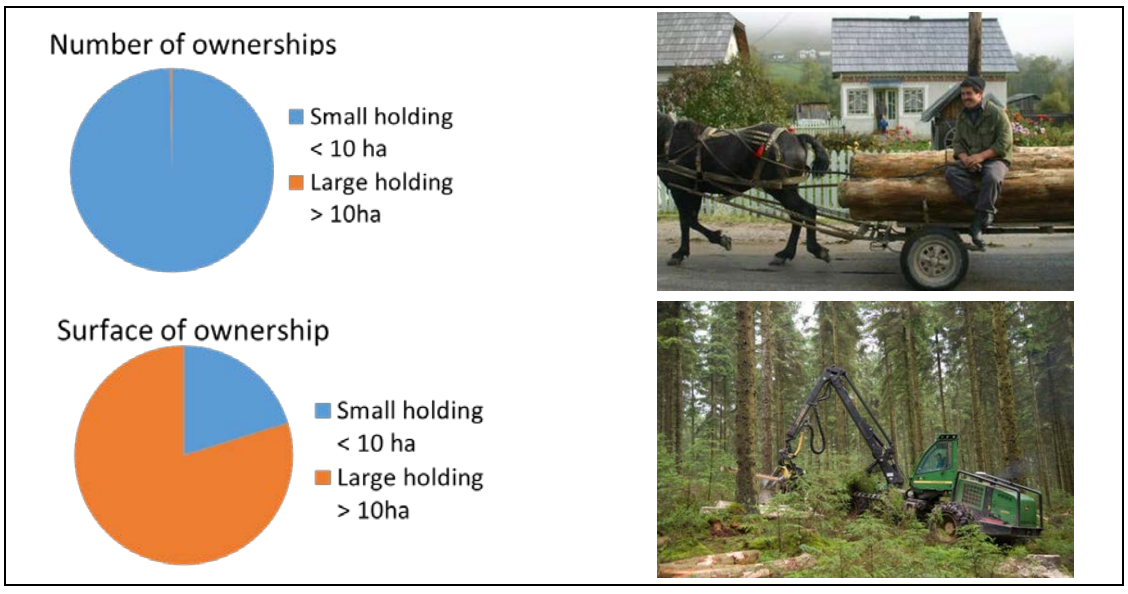

Figure 4. Forest ownership in Romania, 2014

4. Current challenges triggered by the restitution process

The dramatic changes that have been implemented as a consequence of the restitution process impose numerous challenges for Romanian forestry sector:

- The state as a forest owner must redefine its expectations from the management of its asset (profit, ecological/protection functions, social responsibility);
- NFA should face with the need of restructuring its structure and business models as long as in a short period of time diminish the administrated surfaces with 50%. New challenges are facing NFA in terms of private sector competition, Natura 2000 network, social responsibility, political influence);
- The state as a public authority for forestry must develop and implement appropriate institutional and financial mechanisms to adjust the current ownership structure with the ownership evolution of the forestland; the effectiveness of the territorial inspectorates must be addressed by a better monitoring system in place;
- The non-state forest administration sector must consolidate their associations and increase access to national and European funding for rural development, consolidate their relationship with the new forest owners and develop new skills (communication, marketing, project management) along with a stronger implication in the restructuring of the regulatory framework.

5. Conclusions

The restitution process in Romania was politically decided and its evolution had a dramatic impact on the evolution of the forest administration, institutional and regulatory framework. The institutional changes have been politically influenced (both by the Romanian Government and EU) and not always responsive to the sector needs, reality and evolution, therefore the need for a better communication with foresters.

The radical change in the forest ownership continues to pose a high pressure on the restructuring of the forest institution, administration and management structures as well as on the regulatory framework, the central authority needing proactive approach to face the anticipated decentralization and reduction of state role in the forest administration and management.

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National Forestry Programme and its Role in the Solution of Forest Policy Issues in the Czech Republic

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Abstract

Political changes in the Czech Republic reflected in forestry with a newly outlined forest policy and a new forest law in the mid-1990s. Since that time, essential changes occurred in the society as well as in forestry. The most important ones are as follows:

- New structure of forest owners in the Czech Republic;
- Czech Republic's accession to the European Union;
- European Forestry Strategy (1989);
- EU Forest Action Plan (2006);
- European Forestry and Wood Industry Strategy (2012);
- NATURA 2000 System;
- Public administration reform;
- Regional forest management concepts;
- Changes in the system of financial aids
- Introduction of European subsidies within the Programme for rural area development;
- Emergence of new strictly protected areas;
- Results of National Forest Inventory;
- Application of FSC and PEFC certificates;

The implementation of these changes into forest and environmental policies called for the creation of a discussion platform. Negotiations conducted within the National Forestry Programme were open to all major parties in the field of forestry and forest management and became such a platform. Invited to discussions were representatives from the Ministry of Agriculture, Ministry of the Environment, business entities and contractors in forestry and wood industries, representatives of forest owners, ecological NGOs, academic community and experts, who tried to reach consensual recommendations meant for policy makers. Final texts were delivered to the state departments, which use them for a specific formulation of forest policy instruments (legislation, subventions, counselling and communication). The paper describes the whole process and outcomes of negotiations "from below", coordinated by the Forest Management Institute in Brandýsnad Labem.

Keywords: forest policy, national forestry programme

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1. **Introduction, scope and main objectives**

It is a well-known fact that fundamental political changes after the year 1989 affected also the forest policy, which was formulated in new conditions of representative democracy. At the time of the former social system, stakeholders were not invited to open and democratic discussions about the future development of forestry. A new aspect in the formulation of forest policy visions under the ongoing social changes following the year 1989, but namely after 2000, was the way in which the stakeholders became involved in the process of their creation. In principle, it was about starting a social debate and searching a consensus about directions of the further development of forestry in the Czech Republic. In the first decade of the new millennium, other social and political changes had to be taken into account. These included particularly the anticipated accession of the country in the European Union, and the influence of the accession on the country's legislation and on the system of supporting forestry in the Czech Republic, emergence of new protected areas, development of the certification of sustainable forest management, and the reform of state administration. Significant influence was the government response to the pan-European forest protection process in Europe and its application in Czech forestry etc. National Forestry Programme II became a platform for these open public discussions.

2. Methodology/Approach

Methodology approach is a critical evaluation of the process of discussions and a search of the consensus of participating parties in the formulation of conclusions of the National Forestry Programme II (NFP II).

3. Results

Forest Management Institute submitted a draft of the National Forestry Programme II at the beginning of 2007. Participating parties did not accept the proposal. Nevertheless, a regular "round table" session of stakeholders was organized and discussions about the form of NFP II were launched. These were attended by representatives of the academic community, business entities operating in forestry and wood industries, representatives of forest owners, towns and municipalities, non-governmental organizations with ecologically focused programmes, state administration and self-governments. The discussions were very intensive and in the course of six months, a basic document was prepared, which the Ministry of Agriculture submitted to the Czech government for approval. Prior to government meetings, NFP II was assessed for its environmental impacts pursuant to the Act No. 100/2001 Coll. including the evaluation of the impacts of the concept on Sites of Community Interest and Bird Areas according to the Act No. 114/1992 Coll. on nature conservation and landscape protection. The document stemmed out from international commitments such as conventions on nature conservation or

resolutions signed by the Minister of Agriculture within the framework of Ministerial Conferences on the protection of forests in Europe. The Czech government approved the document as a vision for the future period. Thus, a conceptual framework was set up for the formulation of specific recommendations in individual forest policy instruments.

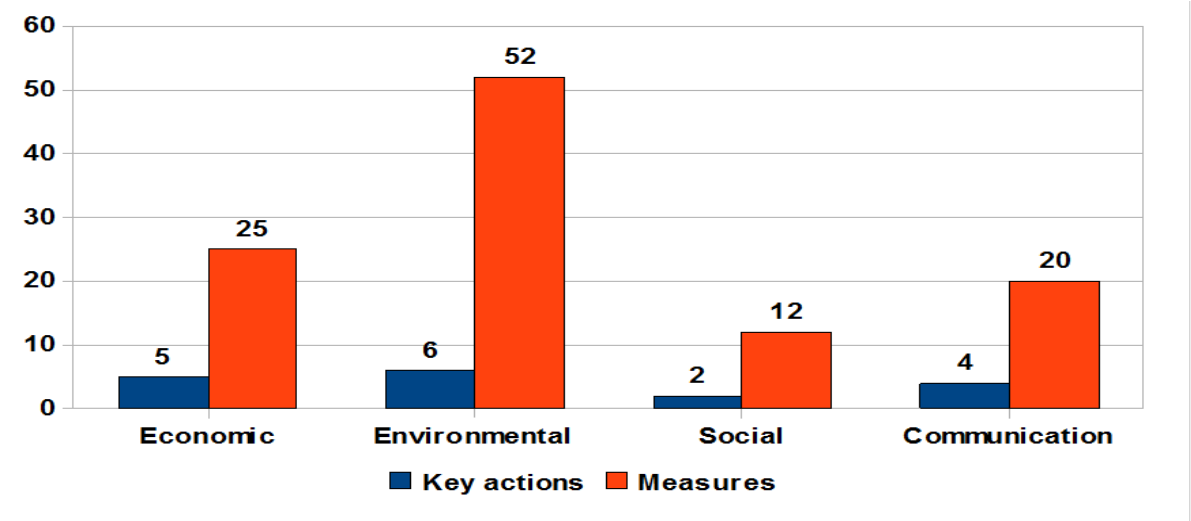

Figure 1. Number of key actions and measures in the respective pillars

Discussions of the representatives of all stakeholders continued in the selected format. For this purpose, a NFP II Coordinating Board was established. Professional working groups were established for individual key events, each with a reporter who submitted individual proposals for discussion and for the subsequent approval to the NFP II Coordinating Board.

Key actions (KA)

KA-1: To enhance economic viability and competitiveness of sustainable forest management;
KA-2: To support research and technology development in order to enhance competitiveness of the forest sector;
KA-3: To improve appreciation and marketing of forest non-wood benefits and services;
KA-4: To promote and support the use of forest biomass for energy production;
KA-5: To support the collaboration of forest owners;
KA-6: To reduce impacts of the expected global climate change and extreme meteorological phenomena;
KA-7: To preserve and enhance biological diversity in forests;
KA-8: To develop forest monitoring,
KA-9: To improve the health condition and protection of forests,
KA-10: To reduce impacts of the old and current ecological burdens;
KA-11: To reach a balance between the forest and the wildlife;

KA-12: To support improvement of the social condition of workers in forestry,
KA-13: To increase the contribution of forests and forestry (forest goods, services) to the development of rural areas;
KA-14: To strengthen the weak position of forestry within public administration,
KA-15: To enhance public awareness about the real condition of forests and needs of forestry;
KA-16: To address the institutional relation of the state to forests and forestry;
KA-17: State-owned forests.
The objective was to propose specific recommendations for the legislation of forest management, game management and nature conservation. Another task was to formulate precisely a draft for the enactment of national and European programmes of subsidies. Important was also to formulate specific project drafts in the social area, rural development, research, counselling and society awareness raising.
A fundamental task was to eliminate political influences from the negotiations. This is why the process was divided into two separate planes. The first one was expert plane that worked with exclusively professional and qualified focus, i.e. not with the political goals of political parties. The second one was executive plane, which applies the recommendations in specific government documents as soon as it receives them from the expert plane. It is upon the political decision following out from the government's responsibility, what recommendations of the NFP II Coordinating Board would be adopted by state departments and submitted particular draft laws, supportive financial instruments of society awareness raising, counselling and/or communication in the sense of these recommendations. Advantage of such a bill is consensual support of stakeholders. Another advantage is the way in which the recommendations are adopted, i.e. by using the bottom-up approach through a broad discussion of experts in the particular sector.

The negotiations steered by the Forest Management Institute Brandýsnad Labem were rather difficult at the beginning since the first issues to be resolved were those of the process character. At first, members of the Coordinating Board could not agree upon the form of negotiations, reference documents and other issues. Another problem was failure of some actors to listen and to search compromises by partial withdrawal from their original concepts.

These problems were gradually overcome, and the negotiations started to be led by mutual consensus. At the beginning, most members of the NFP II Coordinating Board have to learn how to discuss and search common solutions, which was a lengthy and difficult process. It was necessary to adopt rules for the negotiations, consisting in polite behavior, openness for any opinion raised; in respecting the course of action so that only one participant could speak and the other participants gradually applied for word, attendance in meetings was required. Persons who failed to attend a meeting had to respect the already agreed conclusions. The

issue was not opened again after the text had been closed. At all times, recommendations from a key action were presented to the Ministry of agriculture and to the Ministry of the Environment. All documents for the negotiation of the NFP II Coordinating Board, formulated recommendations for the state department, minutes from the meetings and basic studies were publicized on the ÚHÚL website for public control. Each year in January, an open seminar was organized where reporters of key actions introduced to the public recommendations that had been achieved through the consensus. At these seminars, forest policy issues were discussed in the broadest format attainable.

At the end of the agenda of the NFP II Coordinating Board, a comprehensive document was elaborated the items of which were once again discussed by the Board members in detail.

4. Discussion

Creation of the National Forestry Programme was initiated by the Intergovernmental Panel on Forests (IFP) at its meetings in 1995-1997 held under the UN auspices. The Panel stated that forest policy is of complex significance for the society, and this is why the participating countries agreed a set of principles to be used in the creation of National Forestry Programmes. The NFP creation is a process corresponding to the given country; nevertheless, it should follow an international framework that includes sustainable forest management and exercise of benefits from forests connected with the sustainable development of the whole society. Another requirement is the introduction of internationally agreed obligations and initiatives. NFPs are also to create a framework for the multilateral and bilateral cooperation of countries in the field of forest management.

Ministerial Conference on the Protection of Forests in Europe (MCPFE) signed up to these principles in Vienna in 2003. The Minister of Agriculture of the Czech Republic signed the principles and pledged that the Czech Republic would deal with the issues in coming years and would apply in forest policy principles the required shared responsibility of individual sectors for the condition and development of forests in the country. In the context of MCPFE, NFPs address the issues of production functions of the forests, economic viability of their sustainable management, and contribution of forestry to the development of rural areas, protection and adequate expansion of biological diversity in forests, mitigation of climatic changes, protective forest functions, but deal also with social, recreational and cultural aspects. In their national forestry programmes, European countries emphasize a need to enhance cooperation across industries in the sense of the subtitle of the last MCPFE in Vienna "**common benefit – shared responsibility**". They will include the national forestry programmes in the national strategies for sustainable development and will ensure their support not only by all groups whose interest is directly related to forest but also by other

sectors affecting –many a time unfavorably- forests in some way, obtaining –many a time for free- many benefits from them up to now. This political commitment was implemented by the creation of NFP I and later by NFP II. Comparing the National Forestry Programme II in the Czech Republic with similar documents in other countries, we can state that its approaches to the solution of forest policy issues do not differ significantly because it respects the fundamental recommendations of IFP and MCPFE.

5. **Conclusions**

General recommendations and conclusions from NFP II negotiations

- National Forestry Programmes are characterized by the attendance of the public, and broad collaboration is an important condition for their creation and fulfilment.
- NFP is a multi-sector programme, i.e. forest issues should get into the policies of other sectors, too, namely those whose activities substantially affect forests and the natural environment. This means in particular:
    - To enforce recommendations and items concerning forests in the policies of other sectors,
    - To improve communication, cooperation and coordination of activities in sectors responsible for the forests and for the natural environment, and postpone the vested stakes of individual groups.
- Although the collaboration among sectors becomes an indispensable instrument in NFP development, it was stated that it represents a certain risk. NFP objectives may be negated by the policies of economically stronger sectors, and then the interest groups hinder efforts on cooperation in spite of welcoming formally the solution of problems by "more sectors".
- As important is considered the development and institutionalization of mechanisms that would involve stakeholders in the programme preparation, which would help policy makers identify important priorities and would ensure synergic action of individual participants in the process and/or facilitate solution of conflicting goals.
- In order to ensure feedback, tools have to be developed for the ascertainment and valuation of progress in sustainable forest management including instruments for the enhancement of collaboration among sectors.
- The evaluation of results in NFP application needs maximal openness. Important items should include education, building of capacities and information flows, as well as the subsequent assurance of sufficient political attention to the National Forestry Programme, which should be incorporated in the national strategy of sustainable development.

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Illegal Activities in the Italian Wood-Energy Sector and Potential Impacts on Regulation (EU) 995/2010 (EU Timber Regulation)

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Abstract

This paper, in the first part, aims to demonstrate that a significant proportion of woody biomass utilized in Italy for energy purposes is obtained from unclear sources, such as domestic wood irregularly harvested or wood illegally imported. Indeed, the official data about wood energy sources cover not even 50% of the total consumption of woody biomass utilized for energy. The second part of the paper aims to identify the main technical issues and the potentials impacts for the Italian forest sector deriving from the implementation of the Regulation (EU) 995/2010, which was issued by European Parliament in 2010 to contrast illegal activities related to harvesting and trading of wood products.

Introduction

The forest-wood sector represents a relevant component of Italian economy. It involves 80,000 companies, employs about 500,000 people (Romano, 2012) with a total annual turnover of €27 billion (Federlegnoarredo, 2014a). Even though the internal forest resources totalize 11M/ha, i.e. 36% of the national total area with (FAO, 2010), and 81% of them is potentially suitable for harvesting (IFCN, 2005) the Italian wood-working sector remains highly dependent on imported raw material. According to Oliver (2011) imported raw materials represent about 98% of the total wood used by the Italian wood processing industry. Imports are mostly intended as inputs for an export-oriented wood-furniture-industry.

High import levels mirror the lack of integration between domestic forest activities and the Italian wood processing industry. The domestic supply remains weak and not competitive due to some barriers connected mainly to the location of Italian forests (95% are in mountainous areas), environmental constraints, very fragmented forest-ownership and the low-productive silviculture sector. Most of Italian forest enterprises are small (on average 3 to 4 employees each) and present inadequate technological equipment: as a result their average productivity is limited compared to other European countries (Romano, 2012). Furthermore many forest owners are old, with a low attitude to introduce innovations, and to participate to associations and to any other business activities with other economic sectors (Pettenella et al., 2004).

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When considered altogether these factors strongly affect profitability of forest operations and largely contributed to reduce active management of Italian forest resources. Forest removals per hectare in Italy, for example, are among the lowest for all European countries (Eurostat, 2013)[4]. Reduction in active forest management has favored a gradual forest expansion, forest cover has doubles during the last 50 years, but also the ageing and degradation of some Italian forests. Degraded forests cannot normally deliver high quality wood assortments, rather they are increasingly used for removing low unit-quality products, as for example firewood: starting from the 70s more than 50% of domestic removals are intended for energy purposes (Pettenella and Favero, 2013).

1. The Italian wood-energy sector

The National Renewable Energy Action Plan, developed by the Italian Ministry of Economic Development (2010), in the context of the European Directive 2009/28/E, assigns a key role to the solid biomass for achieving targets set for 2020. Indeed, within 2020, solid biomass should become the largest renewable source in Italy, covering 8% of electricity production and 50% of heating and cooling production. According to the National Energy Balance (NEB) a total amount of 26.5 million (M) tons of wood have been used in 2013 for primary energy production (Italian Minister of Economic Development, 2014). As for domestic woody biomass consumption, the NEB considers 2014 data published by the Italian National Institute of Statistics (ISTAT). According to these figures, in 2013, more than 20% of Italian households used woody biomass for heating: as a result the total amount of woody biomass used for residential purposes was 19.2 M tons, i.e.17.7 M tons of firewood and 1.5 M tons of wood pellets. These numbers would make wood biomass the second heating source for Italian households, just after methane. Since, as it was pointed out in the introduction, forest area is expanding and forest removals per hectare remain limited, the question about the origin of the biomasses used at national level remains open.

In order to answer this question, different potential biomass sources shall be analyzed, including: (i) domestic forest removals, (ii) removals from trees outside forests, (iii) imports, (iv) recycled wood (v) wood waste from processing wood industries. Due to the lack of clear and reliable data industrial, in our analysis wood waste and scraps have not been taken into account.

[4]Eurostat: Wood Production 2000-2013 (1000m^3). Data Available at: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/File:Wood_production,_2000%E2%80%9312_(1_000_m%C2%B3)_YB14.png

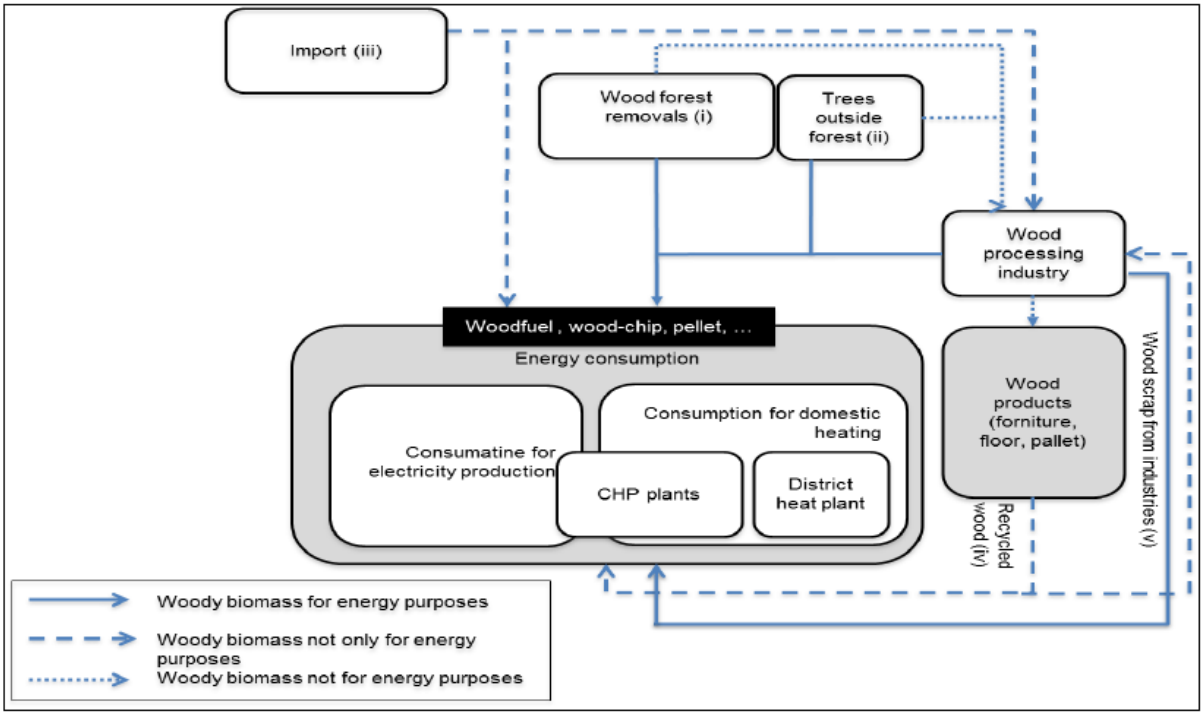

Figure 1. Different potential sources of wood for energy

As already reported, domestic forest removals largely consist of wood for energy: according to the most recent available data in 2012[5] forest removals for energy purposes in Italy totalized 5.4 Mm[6] (2.7M tons[3]), i.e. about 70% of total roundwood removals at national scale (Eurostat, 2014). There are not official statistics regarding domestic wood production from trees outside forests, however the Italian Federation of Renewable Energies Producer (FIPER) (2013) indicates that at least 3 to 4 M tons woody biomass are potentially available from these sources.

In addition to domestic forest removals, wood imports for energy purposes shall be taken into consideration as well. In 2013 Italy imported 3.8 M tons[7] of woody material that can be utilized for energy purposes[8] (Comtrade, 2013).

Finally recycled wood wastes in 2013 have been estimated around 1.4 Mtons, 50% of which have been utilized for energy purposes (Fondazione per lo Sviluppo Sostenibile e FISE UNIRE, 2014).

[5]It shall be noticed that the most recent figures on domestic removals for Italy date back to 2011 because 2012 figures are identical to 2011 ones.

[6]Assuming 1 m³ corresponds to 0,5 ton, as suggested by Mantau *et al.* (2010).

[7]In detail: 0,78 Mtons of fuelwood, 1,75 Mtons of pellet, 0,63 Mtons of chipped-wood

[8]Wood chips for example can be used not only for energy purposes, but also for paper and chipboard production

Table 1 below summarizes the estimated contribution of different sources to national woody biomass supplies, together with data on total and domestic consumption at national level.

Table1. Supplies, sources and consumption of wood for energy in Italy

Annual supplies (source, year of reference)	Quantity (Mtons)
Forest removals for energy purposes (Eurostat, 2013)	2.7
Woody material from trees from outside the forest (FIPER, 2012)	3 to 4
Import (Comtrade, 2013)	3.8
Recycled wood utilized for energy purposes (CRA, 2012)	0.7
Total supplies	**10.2 to 11.2**
Total consumption (Italian Minister of Economic Development, 2013)	**26.5**
Household consumption (ISTAT, 2013)	**19.2**

Even though data presented in table 1 are not totally complete (there aren't data available about wood scrap from manufacturing industries), and they refer to a period (2009-2013) rather than a single year, the gap between biomass consumption and supplies is evident. Even if we assume that all available biomass is used for energy production (which is not a fully realistic scenario), the total amount would cover less than 60% of woody biomass household consumption and less than 45% of the total one.

These figures suggest that as already supposed by many studies (Tommassetti, 2010; Gasperini and Tabacchi, 2011) a significant proportion of biomass utilized for energy purposes is obtained from unclear sources, that might include wood from illegal activities such as domestic wood irregularly harvested/traded or illegally imported. Illegalities activities in Italian forests are not only administrative offences (such as insufficient number of stems left on coppice stands), but also criminal ones (Masiero et al., *2012*). In 2012, in Italy, 823 cases of wood thefts were reported by State Forestry Corps (CFS, 2013). Although these thefts are limited to small amounts of wood (mainly firewood) environmental impacts may be quite relevant, especially when harvesting is done in protected areas. For example, in the first two months of 2015, more than 220 tons of firewood illegally harvested in the Cilento National Park and in the Regional Park of Matesewere seized by CFS[9].

In addition to the wood thefts, empirical experience indicates that Italian wood-energy sector is characterized by an informal market, with consequences in terms of Value Added Tax (VAT) frauds. These non-legal activities are a limiting factor for the development and implementation of effective strategies and measures to support the renewable energy sector, it might also turn problematic with reference to the implementation of other policy tools, such

[9]News about these two facts are available at the CFS website.

(http://www.corpoforestale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/1)

as European regulations aiming to contrast illegally sourced timber, in particular the so-called EU Timber Regulation.

2. The EU Timber regulation: the European Tool to contrast the illegal wood in EU Market

In order to contrast the placing of timber and timber products deriving from illegal activities on the European market, the EU Parliament has approved Regulation (EU) 995/2010, also known as EU Timber Regulation (EUTR). The EUTR came into force on March 2013 in all European Member States that were given responsibility to implement and enforce the Regulation at national scale. The EUTR is applicable to a wide range of wood-based products and distinguishes into two main types of actors:

- **"operators**": i.e. any natural or legal person that places timber or timber products on the market. This includes wood importers from non-EU countries, but also individuals or organizations that, within the EU, harvest forests/trees and sell timber or timber-based products;

- "**traders"**: i.e. any natural or legal person who, in the course of a commercial activity, sells or buys on the internal EU market timber or timber products already placed on the internal market.

According to article 6 of Regulation (EU) n. 995/2010, traders are obliged to maintain traceability of timber products they buy/sell for 5 years, whereas operators have to define, implement and maintain a due diligence system (DDS) to demonstrate that the products placed on the EU market have been legally sourced.

A DDS has to be composed by three main components:

a) ***Information gathering***: the operator shall have direct access to information on the product (e.g. trade name, wood species, quantities, etc.) and supplier(s), the country of origin and documentation to demonstrate the compliance of product with the applicable legislation in the country of origin;

b) ***Risk assessment*****:** the operator shall implement a risk assessment procedure that, by considering the information set out in the previous step of the DDS, evaluate the risk of illegally harvested timber or timber products being placed on the market. The procedure implemented has to consider at least risk assessment criteria listed under article 6 (point b) of Regulation (EU) n. 995/2010, such as prevalence of illegal harvesting in the country of origin or complexity of supply chains;

c) ***Risk mitigation*:** if the risk assessment identifies a certain risk that a product contains illegally harvested timber, risk mitigation procedures must be put in place. These procedures should be adequate and proportionate to minimize effectively the identified risk, and might include requesting additional information from suppliers as well as third parties certifications.

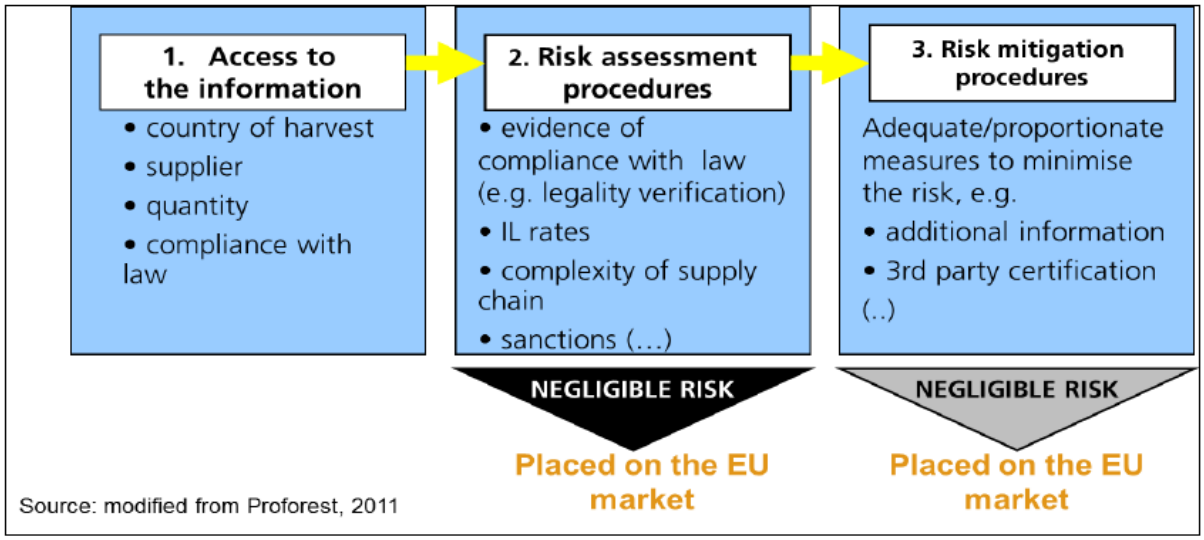

Figure 2.Main elements of the DDS required by Timber Reg.

Operators can either develop and implement their own DDS or take advantage of a DDS developed by a Monitoring Organization (MO). MOs are organizations enabled to develop a functional DDS and grant operators the right to use it. In order to do so, MOs must be formally recognized by the European Commission (Proforest, 2011). So far the European Commission has recognized ten MOs: two of them, i.e. ConLegno and ICILA, have an operational scope limited to Italy[10].

3. The level of implementation of the EUTR in Italy

Although Regulation (EU) 995/2010 came into force on 3rd March 2013, many EU Member States, including Italy, are quite late in its full implementation (Jonhson et al., 2015). In the case of Italy poor implementation mostly derives from the late designation of the Ministry of Agricultural, Food and Forestry Policies as the national Competent Authority and the State Forestry Corps (*Corpo Forestale dello Stato*, CFS) as the body in charge of performing controls. Designations were finalized and formalized just in December 2012, just two months before the Regulation would have come into full force. The penalties and control procedures were defined only in December 2014, but additional decrees are now needed to make the

[10]List of MO recognised at European level is available at the following link:
http://ec.europa.eu/environment/forests/timber_regulation.htm

system fully operative (Jonhson et al., 2015). As a consequence, the Italian Competent Authority hasn't implemented any official controls so far. During 2014, however, the CFS and Conlegno jointly carried out a pilot audit/visit to three companies with potentially high-risk suppliers. One of the three companies reported a significant decrease in the number of wood species imported because it preferred to focus on fewer species and consolidate trade relationships with reliable suppliers (Pasqualotto, 2014).

The National Federation of Wood, Cork, Furniture and Furnishing Manufacturers (Federlegno-Arredo) in 2014 estimated that almost 100,000 Italian enterprises are subjected to the Regulation (EU) 995/2010. More in detail, 25,000 of them should qualify as operators, and the remaining ones as traders. Among the first group, about 5,000 companies qualify as operators because they harvest and then first place on the European market domestic wood (Federlegno Arredo, 2014).

Forest companies that harvest domestic wood, and represents the core of the Italian wood-energy sector, appear isolated in view of EUTR implementation. Indeed, on the one hand, many of them are very small without a strong and efficient management, and, at Italian level, there isn't a strong national association that can represent their interests to the public authorities. On the other hand, the Italian monitoring organizations activities, until now, are focusing on supporting medium and big companies that deal mainly with imported wood. In Autumn 2015, Conlegno (one of the two Italian monitoring organization) probably will make available specific DDS for Italian operators that deal with domestic wood.

4. Questions and doubts of Italian operators about the EUTR implementation

Even though the EUTR is not fully implemented, many questions about its implementation are arising among Italian operators. In particular, the EUTR appears challenging for small and medium Italian enterprises that represent the core of the Italian wood sector. Based on dialogue with operators and empirical experience, the main uncertainties for Italian operators can be summarized in the following two questions:

- At Italian level, what are the documents necessary to demonstrate the compliance of wood products with the applicable legislation?
- What are the real costs for the Italian operators?

4.1 What are the documents necessary to demonstrate the compliance with the applicable legislation?

In order to comply with EUTR requirements, operators are required to implement a DDS. As a first step critical information shall be gathered to demonstrate the compliance of wood products with the applicable legislation in the country of harvest. Regulation (EU) 995/2010 (article 2 (point h)) clarifies that applicable legislation includes laws and normative requirements covering the following aspects:

- *rights to harvest timber within legally gazetted boundaries,*
- *payments for harvest rights and timber including duties related to timber harvesting,*
- *timber harvesting, including environmental and forest legislation including forest management and biodiversity conservation, where directly related to timber harvesting,*
- *third parties' legal rights concerning use and tenure that are affected by timber harvesting, and*
- *trade and customs, in so far as the forest sector is concerned.*

To clarify some ambiguous aspects of the Regulation (EU) 995/2010, the European Commission has published a "*Guidance document for the EU timber regulation*" that provides examples of possible proofs for each matters considered in the applicable legislation (table 2).

Table 2. Examples of evidences necessary to demonstrate the compliance with the applicable legislation *(Source: European Commission, 2013)*

Legislation matters to be covered	***Examples of proof of legality***
1. Documentation for rights to harvest timber within legally gazetted boundaries	• documentation of ownership/rights to land use • contracts • concession agreements
2. Payments for harvest rights and timber including duties related to timber harvesting	• contracts, • bank notes, • official receipts
3. Timber harvesting, including environmental and forest legislation including forest management and biodiversity conservation, where directly related to timber harvesting.	• official audit reports; • environmental clearance certificates; • approved harvest plans, • official documents issued by competent authorities in a country of harvest etc.
4. Third parties' legal rights concerning use and	• environmental impact

tenure that are affected by timber harvesting	assessments, • environmental management plans, • environmental audit reports
5. Trade and customs, in so far as the forest sector is concerned	• contracts, • bank notes, • trade notes, • import licenses, export licenses, • official receipts for export duties

In the case of Italy it is to be remembered that forest legislation is defined at regional level and, since 1972 (Decree n.11, 1972), Regions have full financial and technical responsibility over forest management regulation activities within their territories. Therefore, in order to demonstrate the compliance with applicable legislation for products derived from Italian forests, operators shall take into account the national legislation for covering the matters n.1, 2 and 5, whereas, for matters 3 and 4 they shall make reference to relevant regional legislation and address regional authorities. The devolution of forest management regulation at regional scale, however, has brought to a non-homogenous legal framework, with different requirements depending on the region, an increased number of normative requirements and the consequent risk of duplicating responsibilities and creating administrative conflicts (CNEL, 2000). This emphasized by the fact that while forestry issues are under the responsibility of Regions, environmental ones are still managed at central level. In some cases, these overlapping and sometimes unclear roles have resulted in non-linear and costly procedures for the issuing of harvesting license (Rigon, 2012) discouraging operators from investing in forest management activities or, sometimes, pushing them to not authorized logging operations.

It is recommendable that all regional authorities, jointly with CFS, will supply clear indications about the evidences needed to demonstrate the legality of the wood products, as required by Regulation (EU) 995/2010. So far only two Italian Regions, i.e. Piedmont and Lombardy, have developed guidelines and informative/supporting materials for operators. The same regions have also implemented specific on-line procedures and systems for the issuing of harvesting licenses as well as a mutually valid system for qualifying forest enterprises and operators with regard to technical skills as well as health and safety requirements.

Italian operators are also waiting clarifications from regional/national authorities about:

- the proof of legality required for wood deriving from removals that remain below minimum thresholds (in terms of either removed volume/quantity or harvested area). According to some regional legislations (e.g. Piedmont one) in this cases operators are not required to have any authorization to proceed, but might then find themselves in trouble in case of control, when required to prove the legal origin of wood;
- the evidence for legality of wood products derived from tree outside the forest. These include not only wood from agricultural activities (e.g. management and harvesting of linear forest systems, forest belts, hedges or small woodlots), but also material deriving from poplar plantations and arboriculture systems for the production of high-quality wood assortments. Indeed, these plantations are normally not classified as forests, rather as temporary agricultural land-uses, therefore operators are not required to have any official authorization for logging these areas.

4.2. What are the real costs for the Italian operators?

The burden that operators, and in particular small and medium enterprises, shall face in order to meet ETR requirements is a debated issue. At the moment it remains difficult to estimate the costs for the implementation of a DDS because most Italian companies are waiting for the enforcement of national legislation before starting to develop and implement their DDS (Jonhson *et al*., 2015). However, many and different factors, such as for example the number and kind of suppliers, or the general management capacity and skills, are likely to influence the costs for implementing a DDS. Although there are no specific data available yet, the implementation of an effective DDS is expected to require investments in internal organization and control systems that represent additional costs and might decrease economic competitiveness, especially for small-medium enterprises (Florian *et al*., 2012).

Furthermore, national implementing legislation (Decree n.178) specifies (point 4.1) that no additional public resources will be made available for the Competent Authority for the implementation of the Regulation (EU) 995/2010. According to the same source operators will also be required to pay a fee in order to be included in the national register of operators. The entity of this fee at the moment remains unknown. Further uncertainty exists about whether there will be a connection between the register of operators, created for the purposes of complying with EU requirements, i.e the EUTR and the Forest Law Enforcement Governance and Trade (FLEGT) Acton Plan, and the register of the qualified companies that the Italian Government commits to create in the next years to guarantee an appropriate

professional level of the forest operators. In the case that two registers will be kept separated, operators will have to pay a double fee to register them in national official registers. While bringing extra costs for companies willing to operate in full compliance with legal requirements, these measures might not have effective results for those companies operating informally, especially if controls will remain weak or totally absent. Many of these informal organizations operate in the production and trade of energy wood and related products.

Conclusions

A full and effective implementation of the Regulation (EU) 995/2010 would be an important tool to guarantee transparency and equal competition among companies in the Italian wood-energy sector that is characterized by a significant proportion of biomass obtained from unclear sources.

The modality and the delay of the Italian government to make operative the Regulation is a negative starting point. This inactivity of the Italian public authorities can increase the concrete risk that the Regulation will not be effective to detect companies operating in total informal context. Moreover, this situation can contribute to create a market with two levels, on the hand the regular companies that have to pay extra cost for the DDS implementation, for the fee of national register of operators and for the possible voluntary certifications. On the other hand, illegal companies can carry on their activities, with indirect advantages of competiveness respect legal companies.

The lack of strategic planning and the coordination among public authorities can also favor a general increase of the bureaucratic and economic burden and decrease the general competiveness of the Italian forest sector.

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FLEG (Forest Law Enforcement and Governance) in Central Asia – An Initiative Financed by the European Union

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1. **Introduction**

Today there is common sense that deforestation and forest degradation are responsible for a huge amount (up to ¼) of carbon dioxide emissions caused by human activity and illegal logging must be stopped because it has many negative economic, environmental and social consequences. The livelihoods of millions of poor people are affected, as are we all. In particular since the late 1990s the issue of illegal logging gained increasing public and political attention. The EU recognized that, as one of the world's largest markets for timber product, its actions were having considerable impact on the illegal timber trade.

As a consequence the FLEG process had been initiated by the European Union, the World Bank and other international organizations to elaborate and implement policies and practices aiming to combat illegal activities and associated timber trade and to ensure sustainable forest management. Initiatives launched by the EU are almost always accompanied by projects that offer dialogue and support to the partners regarding their implementation. Successful projects had already been established like the ENPI (European Neighborhood and Partnership Instrument) FLEG program. In 2013 the project "Forest and Biodiversity Governance Including Environmental Monitoring (FLERMONECA) financed by EU and implemented through GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) has been started, being one of the four components of the Regional Environmental Programme of the European Union for Central Asia. Within FLERMONECA FLEG is a sub- component, where sectoral ministries and agencies in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan are supported by GIZ and Hessen-Forst to improve the legal framework, administrative structures and regulations in the forestry sector (GIZ 2014).

2. Background

The overall objective of FLERMONECA is to promote the stability and security of the countries of Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) to assist them in their pursuit of sustainable economic development and poverty reduction and to facilitate closer regional cooperation both within Central Asia and between Central Asia and the EU.

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The specific objective is to enhance regional cooperation and partnership with Europe in the fields of forestry and biodiversity governance, including environmental monitoring, through supporting the sustainable use and management of natural resources in Central Asia, by tackling issues such as climate change, forest governance (the FLEG process), ecological restoration and environmental data collection, exchange, monitoring and assessment.

The long-term aim is to promote legal and sustainable forest management and utilization practices, to strengthen the rule of law, to tackle the growing problem of illegal forest activities and thus to enhance the local livelihoods.

The three sub-components of FLERMONECA:

I- Forest Law Enforcement and Governance in Central Asia (FLEG Central Asia): The promotion of legal and sustainable forest management and utilization practices strengthens the rule of law, tackles the growing problem of illegal forest activities and enhances local livelihoods (carried out by Hessen-Forst).

II- Ecological Restoration and Biodiversity Conservation in Central Asia (ERCA): Promoting an active dialogue between the EU and Central Asia; demonstration and dissemination of ecosystem-based management approaches on regional, sub-regional and sub-national levels to support conservation and restoration of biological diversity in the region (carried out by GIZ).

III- Environmental monitoring in Central Asia (MONECA): Environmental monitoring, reporting and data sharing is improved in the Central Asian countries and in the region as a whole, and links and partnerships are strengthened between the respective Central Asian and EU institutions (Umweltbundesamt GmbH, Austria)

3. The FLEG Process

The FLEG Process is part of the EU FLEGT Action Plan with the aim to prevent the import of illegal wood into the EU, to improve the supply of legal timber and to increase demand for wood coming from responsibly managed forests. FLEGT and FLEG have common objectives. The differences are mainly trade aspects and the geographical scope. FLEG generates political awareness and focusses on activities in the partner countries, whereas FLEGT targets also on products entering the European market.

The first regional Ministerial Conference on Forest Law Enforcement and Government took place in the East Asia and Pacific region in 2001 in Indonesia. Conferences followed for

Africa (20003 Cameroon) and Europe and North Asia in 2005 in St. Petersburg. Each conference resulted in a declaration where countries expressed their commitment

The St. Petersburg Declaration adopted by 44 countries in 2005 addresses the possible need for reform of forest sector legislation and policies to ensure that forest are managed in a sustainable manner, responsible legal forest industry is encouraged, and the rural poor are not criminalized for using resources.

Key elements of the St. Petersburg declaration are that each country has the responsibility for curbing illegal activities, trade and related crime and that forest law and governance issues need to be addressed at local, national, trans boundary, regional and international levels.

Now the focus has shifted towards translating regional political commitment into projects and reforms at the regional and country levels, like the ENPI FLEG program, funded by EU (European Neighborhood Policy Initiative).

It became obvious that "Illegal logging" includes a wide range of activities despite timber trade like: i) harvesting in protected areas or areas which are not authorized, ii) harvesting without proper rights, iii) harvesting species which are not allowed, harvesting undersized trees and in particular iiii) non-compliance with prescriptions of management plan.

The focus on legality makes a lot of sense. Firstly it reinforces the sovereignty as it is addressed to all participants in the sector and secondly it is the prerequisite for development and implementation of sustainable forest management. In addition it underlines the EU's intention to have a political dialogue between more equal partners.

4. FLEG Central Asia

The FLEG Process in the framework of FLERMONECA has been activated through Inception Missions in the partner countries and will be implemented over a period of 30 months. Relevant stakeholders involved are respective national authorities, local communities whose livelihoods depend on the direct use of natural resources, and those parts of the private sector who are engaged in the commercial production of timber.

The main activities aim at i) capacity development of national forest authorities; ii) improvement of forest governance; (iii) design of improvements for forest laws and regulations; and (iv) implementing national forest action plans.

All Central Asian (CA) countries except Turkmenistan have signed the St. Petersburg Declaration. All of them are considered low-forest-cover countries (LFC) by FAO, and the

existing forests are heavily degraded in all countries. Furthermore it must be feared that these countries will suffer severely from the impacts of climate change, although their contribution to the causes are very small compared to those from other countries. National Forest Programs (NFP) have been prepared by all countries except Kazakhstan. Apart from inappropriate investment levels, main bottlenecks identified by them include weaknesses in i) technical and organizational capacities of national institutions responsible for forest; ii) political main-streaming of forest-related questions into national development priorities, and iii) access to appropriate technical and social solutions which provides the most challenging entry point for activities financed under the FLERMONECA.

5. FLEG Results

At the end of the FLEG process stand improved framework conditions for legal and sustainable forest management and utilization practices which are expected to i) strengthen the rule of law, ii) tackle the growing problem of illegal forest activities, and iii) enhance local livelihoods to be reflected in a number of results.

A preliminary Time-bound Action Plan/Plan of Operation (TAP) prepared for each country during the inception phase has pointed out priorities among the needs of action, engagement of respective expertise; required capacity building measures, necessary steps of coordination among participating countries, and the handling of possible conflicts. FLEG CA has cooperated with ENPI FLEG East and ENA FLEG.

Moreover, the implementation of the entire FLEG process in CA will be guided by the following aspects: i) transparency, accountability and public participation; ii) stability of forest institutions and conflict management; iii) quality of general forest administration; iv) coherence of forest legislation and rule of law; and v) economic efficiency, equity and incentives.

The expected results are summarized as follows:
Result 1: Capacities of forest ministries/agencies for the implementation of effective forest governance are improved.
Result 2: Recommendations for the improvement of the legal framework are developed.
Result 3: National FLEG action plans are developed.

6. Methodology

The Inception Mission followed a methodological approach that is founded on two pillars: (i) performance of interviews/workshops/working groups with active participation of stakeholders, and (ii) documentation and results of previous and ongoing projects.

The priority under FLERMONECA will clearly aim at the national level. As a result of the St. Petersburg Declaration the forestry sector is still receiving international attention, as it is a commitment which the countries signed in order to demonstrate their political will to reform their respective forest policies and legislation.

The proposed FLEG actions are based on existing baseline activities carried out during the past years. These actions will in particular include the identification of existing best practices and the assessment to what extent the results of the baseline activities had been incorporated into a national dialogue on policy, legal and institutional frame-work, finally leading to country-specific activities. Activities will concentrate mainly on three intervention areas: i) capacity and organizational development, ii) development of improved, harmonized and integrative (cross-sector) legal framework, iii) strengthening FLEG working groups and focal points to implement integrated and participatory action plans.

7. Plan of Operation

The TAPs will include a number of activities to be completed within the given timeframe of 30 months. The following activities will be included: i) as a result of comprehensive analysis of the institutional framework work, working plans will be drafted to be discussed in specific workshops, ii) a country- wide training needs analysis will result in a specific training program for each CA country, iii) a comprehensive analysis on illegal forest activities (including their causes) will result in a specific FLEG action plan at national level, iv) together with other partners a review of the forest legislation and specific policies will be carried out for all five CA countries. This review will result in clear recommendations for revision (if needed) of the forest laws and respective by-laws,

8. Results

The inception workshops revealed strong interest of the participating countries in the FLEG Process.

The main activities concentrated on: development of FLEG action plan, capacity development of national forest authorities, improvement of forestry governance, design and improvement of forestry laws and regulations and implementation of national forestry action plans.

National as well as regional goals and activities were identified, thus addressing both the specific objective of FLERMONECA to enhance regional cooperation and partnership with Europe and the FLEG objective to strengthen sustainable forest management and to enhance local livelihoods.

The current focus of project activities with regard to the countries is as follows:

Kazakhstan

- Support of the NFSP development;
- Training afforestation (organization, supportive structures etc.);
- Afforestation of forest-free forest land by private investors and later management.

Kyrgyzstan

- Reform in pilot leskhozes;
- Legal framework reform, update of old FLEG Action Plan;
- Organizational structure;
- Afforestation of forest-free forest land by private investors.

Tajikistan

- Supporting forest administration reform;
- Legal framework review;
- New forest strategy to be supported (experience from pilot areas, i.e. Joint Forest Management).

Turkmenistan

- Legal framework review and facilitation of governmental structures for an improvement;
- Conflict between forest management, protection and grazing regulations;
- Decentralized Forest Management;
- Challenges in concern of afforestation (climate, forest protection).

Uzbekistan

- Legal framework review;
- Support for the NFP development;
- Forest codex;
- Challenges in concern of afforestation (climate, forest protection).

Due to the regional aspect the following issues could be identified to be of common interest:

- Creation of an (unofficial) Central-Asian forum for improved exchange of regional challenges on the legal framework (towards a regional FLEG approach). Goal: regional FLEG declaration;

- Harmonized monitoring structure. Goal: comparable peer-pressure monitoring structure
- Afforestation training (nursery management, seed center, project planning and financing) Goal: improved structures;
- Decentralization of forest management (individual / communal leaseholder). Goal: improved coverage of SFM and supportive extension structures;
- Forest – grazing conflicts. Goal: improved legal framework;
- Training of (junior) staff. Goal: improved administration capacities (focus on best-practice procedures);

References

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