

FOREST CERTIFICATION EFFECTS ON SUSTAINABLE MANAGEMENT OF ROMANIAN FOREST ECOSYSTEMS

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Abstract: The forest certification initiatives emerged in the '90s to stop irrational deforestation of tropical forests and to stimulate their sustainable management. At first, forest certification was an economic instrument for encouraging the sustainable management of tropical forests and banning the wood from illegal logging; then, it was extended to temperate and boreal forests. Nowadays, public and private certified forests exist on each continent, including Europe. The Romanian forest owners and managers have become part of this international environmental movement, stimulated by NGOs, wood buyers demands and the need to enter on demanding western wood markets.

The paper analyses the evolution of certification process in our country and its effects regarding important ecological, economical and social aspects of Romanian forest management.

Introduction

Various studies and research have revealed in the last decades that forest ecosystems all over the world are more and more threatened: rapid loss of biodiversity, growing clear cuts, deterioration of forest health and vitality, functions and structure (Cashore et al., 2006). At the same time, many local communities can't rely anymore on forests for their livelihoods, and globalisation accelerates forest exploitation. In this context the government's actions were considered slow, inefficient and having unsatisfactory results.

As a reaction to this situation, at a meeting held in 1990, in California, some environmental and social NGOs, along with wood traders, timber users and forest managers proposed the idea of forest certification, as a market mechanism for promoting sustainable forest management. For this purpose, a multi-stakeholders Forest Stewardship Council (FSC) was created in 1993. FSC developed a series of global principles and criteria of responsible forest management; it was established that independent third parties will audit, based on these principles, all the forestry operations for compliance. If the forests are proved to be well managed, according to the principles of certification, a certificate is issued; then their wood is labelled and has some market advantages. The envisaged advantages are access to new

markets, better prices and better image for owners, administrators and firms trading or processing certified wood.

So, certification is considered an alternative solution for forest conservation, complementary to national initiatives, because certification cannot replace the forest policy, national laws and regulations or education, but can stimulate and complete them. Forest certification is a voluntary process, the forest owners or managers ask the evaluation of their forest management by an independent certification organisation, based on widely recognised standards. They must also pay for the certification. The certified wood is demanded on green markets like the ones from Western Europe, North America, Japan, etc.

Globally, there are other voluntary tools for promoting sustainable management, apart from certification standards: codes of best practice, criteria and indicators of sustainable forest management, and management guidelines; these tools are used in governmental, intergovernmental and multistakeholder initiatives, and by international agencies like Food and Agriculture Organisation (FAO) or International Tropical Timber Organisation (ITTO) etc. (FAO, 2007).

The FSC certification initiative was closely observed by wood industry and forest owner associations that perceive it as a threat because of its environmental and social demands. They responded by promoting alternative certification schemes like the International Organization for Standardization's 14001 Environmental Management Systems approach (ISO 14001) or the Programme for the Endorsement of Forest Certification (PEFC). Initially, PEFC's name was Pan-European Forest Certification, and it was proposed by small forest owners discontented about the FSC scheme, considered too environmental and too expensive. In time, PEFC endorsed some important independent national certification schemes from North America like American Forest and Paper Association's Sustainable Forestry Initiative (SFI), the Canadian Standards Association scheme (CSA), Brazil's CERFLOR scheme or the Malaysian Timber Certification Council (MTCC). Some specialists even call this counteract movement to the FSC scheme, the "certification wars" (Humphreys, 2005). The parallel evolution of FSC and PEFC certified forests area from 2002 is marked out in figure 1.

Despite the annual 20% growth rate of labelled forests, worldwide only about 10% of global forests have their management certified, from which 243 million ha managed under PEFC certification system and 152 million ha managed under FSC system (PEFC 2012; FSC 2012).

At global level, the certification process faces some challenges: if the initial goal of forest certification was to diminish the tropical deforestation, in time, the area of certified forests has become the largest in developed countries from temperate and boreal zones (figures 2 and 3), and the main purpose has not been

accomplished widely. Globally, only about 10% of certified forests are at the tropics. It must be added that deforestation is mainly caused by land use changes rather than logging.

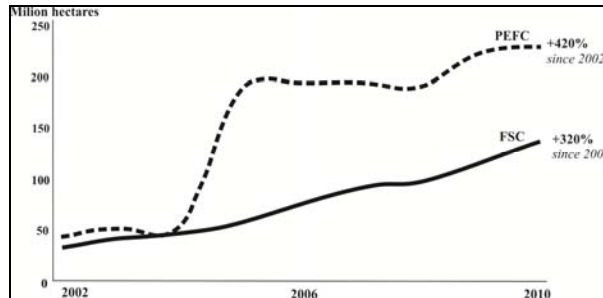


Fig.1 The global certified forest area growth (source UNEP GEO Data portal)

The certification implementation needs solid institutional capacity and financial resources and some critics said that the too demanding FSC standards (for example) create competition only among those who are already well managing their forests, leaving without benefits exactly the managers supposed to improve their management.

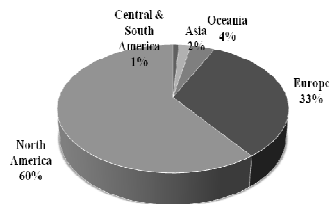


Fig.2 PEFC certified forest area by region (PEFC, 2012)

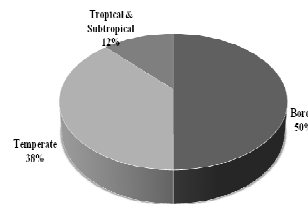


Fig. 3 FSC certified forest area by biomes (FSC, 2012)

The certification often provides access to the markets of green consumers but not necessarily better prices, and for many producers this access isn't enough, especially if they find demand for uncertified products at comparable prices. Hence, the future evolution of certification process depends on the attitude of the consumers from arising markets like the ones from China and India (FAO, 2009). Referring to consumers, it must be specified that sometimes they want to buy green forest products but they are confused by the large number of certification schemes and labels; the consumers must be well informed in order to become responsible buyers and to support the certification process. As a result of these challenges

emerged along the certification implementation process, both major certification systems (FSC and PEFC) allow mixed certified and noncertified wood to be sold with a special label; the label proves that the noncertified wood came from forests that meet however some basic management requirements (WRI, 2007).

The FSC certification process involves several stages: the forest manager must contact a certifier body and fill in an application form; next, the certifier carries out a pre-assessment and delivers to the forest manager a preliminary report with suggestions for improving the management. If the manager decides to continue, the main assessment is carried out by a team of specialists with social, environmental and forest management competences; the assessment is finalized with an audit report based on what the certification decision is made. The report can recommend unconditional certification, certification subject to some preconditions, certification followed by some corrective actions or no certification. In the first three cases, the certifier establishes with the forest manager a schedule for implementation of preconditions and/or corrective actions and if they agree, the manager receives a FSC certificate, valid for five years. In this time span, annual certifier surveillance visits will verify the continued compliance with the certification requirements. The small owners complaints about the costs and difficulties in comply with the FSC standards lead in time FSC to revise its approach and to propose alternatives like group certification and certification for “Small and Low-Intensity Managed Forests” (SLIMF).

In Romania, the forest certification was proposed for the first time in 1998, and in 2012 an area of 680 152.7 ha of state forests and 36 902.4 ha of private forests are FSC certified, with another 1.7 million ha of state forests in certification process. The present study analyses the evolution and the effects of forest certification in our country.

1. Materials and methods

The research methods used consists in field observations and data gathering regarding different technical, environmental and social aspects of forests management. The field data were corroborated with data from forest management documents.

The certification process was studied using the qualitative analysis methods. Consequently, the research documentation was completed with information from face to face interviews with certification responsible persons of the National Forest Administration and with other persons from the forestry personal, from forest managers to forestry workers especially from Suceava and Neamț forest districts. Considering the fact that all forests were unitarily managed before 1989, the results are illustrative for all state forests.

2. Results and discussions

The presentation of the study results can be ordered in some major categories: historical context, the emergence and evolution of forest certification, the process background, reaction to certification and certification effects.

Historical context. Former socialist country, after 1989 Romania shifted from a centrally controlled economy into a market based one. This transformation process was difficult, even convulsive, and not finished yet.

Before 1989, all the forests were state-owned; after the regime change, the forests restitution to the former owners or to their descendents was completed through successive laws (in 1991, 2000 and 2005).

The main guidelines of sustainable management can be found in the last socialist forestry regulation (the law 2/1987) and the forests can be generally considered adequately managed. Before that, because of political and social reasons the annual felling volumes registered a sinusoidal evolution, with periods of normal volumes (around 14.5-16 million m³) followed by periods with exaggerated felling volumes, reaching even 27 million m³ (Giurgiu, 1995). In time, some inappropriate management measures were applied, similar to the ones of other European countries: replacement of natural forest ecosystems with spruce and hybrid poplar plantations, pesticides use, cellulose plantations, etc.

The new market forces, the consumerism, the privatisation, the desire of quick profit and hard currency, the important external demand for wood (especially from the Arabian and European markets), the illegal logging, place an important pressure on our forests and make them vulnerable.

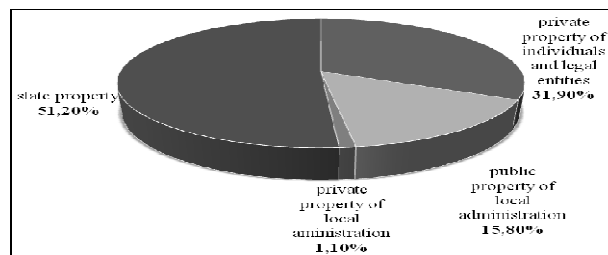


Fig.4 Romanian forest ownership

The total forest land in Romania is 6 515 000 ha, meaning nearly 26.7% of the total land area. Of this, the state owns 3 339 000 (51.2%) and the rest is private forest. From the total private area, 2 079 000 ha are owned by individuals and legal entities, 1 024 000 ha is public property of the local administration and 73 000 ha is private property of the local administration (figure 4) (MMP, 2010).

The restitution of forests up to a half of all forested area has potential for major negative impacts on forest ecosystems and their biodiversity. Private owners often clear-cut their forests or force felling beyond the sustainable limits. The collapse of socialist economy has made people's subsistence resources scarce in a number of Romanian rural areas; in some of them legal or illegal logging became the main source of income.

Even the legal annual felling volumes are constantly growing: logging has increased significantly from 16 million m³ in 1999 to 20.3 million m³ in 2005 and to 22.3 million m³ in 2010 for all forests regardless of ownership (MMP, 2010).

Romania is a net exporter of furniture and wood based products: 75% of Romanian furniture is exported and 70% of the wood products (CNP, 2007). The furniture export had an outstanding evolution; the ascendant trend was affected by the world economic crisis, but 2010 shows a recovery (figure 5)(RFMA, 2011).

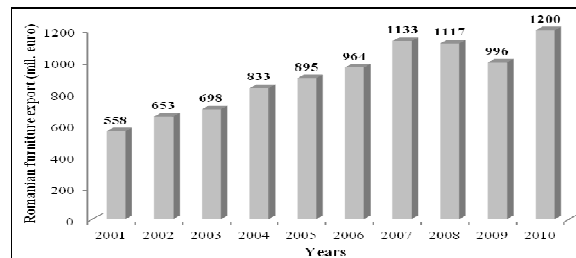


Fig.5 Romania's furniture export (2001-2010) (RFMA, 2011)

The furniture is sold on demanding and important markets like France, Germany, Italy, Austria, United Kingdom, Holland, USA (RFMA, 2011). In this context the interest for FSC certified wood is permanently growing and the wood industry makes pressures on Romanian forest managers for it.

Emergence and evolution of forest certification. The first discussions about forest certification in Romania were initiated in 1998, but only in 1999 an active working group was created with the support of WWF Danube Carpathian Programme. In 2000, the PEFC certification was also taken into consideration, but because of the small percent of private forests at the time and the lack of resources of the Association of Private Forest Owners, this certification scheme was not pursued. Even if now the percent of private forests is more important, no Romanian forests are PEFC certified.

In 2001, the first two state forests in our country, Văratec and Târgu Neamț applied for certification as part of a pilot project sustained by the "Biodiversity Conservation Management Project of Vânători Neamț National Park" financed by the Global Environment Facility (GEF) through the World Bank (WB) as an

implementing agency, the Romanian Government and the National Forest Administration (NFA). For certification the general FSC standards were used, and the certificate for 31 611 ha forest was delivered in 2002. In the same year, the legal framework for state forests certification was created through the Governmental Decision 1447/2002 which approved measures like certification to ensure the sustainable management of Romanian forests.

In 2003, a National Working Group for Forest Certification (NWGFC) was appointed, its main goals being the forest certification promotion and national certification standard setting. The NWGFC has 67 members: representatives of National Forest Administration, of the Association of Private Forest Owners, of the Forest Research Institute, wood processing firms, academics, NGOs, individuals, other stakeholders. The members are divided in three chambers: economic, environmental and social. The working group contributed to the setting of three drafts of the national Romanian certification standards and their members are still working at the fourth and final draft.

In the autumn of 2003, the NFA applied for the certification of forests from eight of its branches (Arad, Argeş, Cluj, Dâmboviţa, Hunedoara, Neamţ, Timișoara, Suceava) (table 1). In 2005, the forests managed by NFA received a group certificate valid until 2010.

Tab.1 Forest area from eight state forest districts FSC certified in 2005

NFA branch	Certified area (ha)	NFA branch	Certified area (ha)
Arad	137 735	Hunedoara	219 981
Argeş	193 200	Neamţ	116 613
Cluj	26 309	Timiș	83 508
Dâmboviţa	95 590	Suceava	202 575

In 2009, the forests from Dâmboviţa and Argeş were replaced with equal forest areas from Suceava and Neamţ, because FSC forbidden pesticides were plane sprayed for pest control.

In 2011, NFA applied for the certification of another 23 branches (Alba, Argeş, Bacău, Bihor, Bistriţa, Braşov, Buzău, Caraş Severin, Covasna, Dolj, Harghita, Hunedoara, Ialomiţa, Ilfov, Mureş, Prahova, Satu Mare, Sibiu, Tulcea, Vâlcea, Vaslui, Vrancea) with 1.7 million ha of forest. In January 2012 the certification process was started with the pre-evaluation visit and now the final report is waited for. Because the certification process of all these new forests with such an important area is supposed to be long enough, and there were pressures from wood processing firms for certified wood, NFA decides, with the financial support from WWF, to recertify in a more rapid procedure the forests of four of its

best branches (from certification point of view): Arad, Timișoara, Suceava and Neamț meaning a total forest area of 620 000 ha.

The first private forest, Năruja, in Vrancea County, was FSC certified in 2005; in time, other private forests like Baia Mare City Forest, Baraolt Private Forest District, or Pădurile Șimcii Private Forest District were certified, too.

Whereas the national working group for forest certification accomplishes the national standards, in the certification process were used the generic FSC standards. FSC established a set of principles and criteria that define sustainable forest management. They have a high level of generality and must be further developed to meet national specific requirements. That's why national standards are needed. Currently the FSC standards are revised and the final form is attended. In the certification process, auditing the compliance of the Romanian forests management with the principles and criteria of FSC standard highlighted the need of some management adjustment from NFA or private owners.

The non-compliances with the FSC standard can be grouped in some major issues: the environment protection, the harvesting operation, the working and living conditions of forest workers and the relationship with the local communities and other stakeholders.

Environment protection

- there are no special references in the management plan regarding the biodiversity evaluation, inventory, monitoring and no map localisation;
- the identification of High Conservation Value Forests (HCVF) is not complete; specific monitoring indicators and conservation procedure are not fully developed for all HCVF in order to provide for at least annual monitoring of related attributes;
 - deadwood is not always preserved in the forests;
 - some FSC banned chemicals are used in pest control and there is no clear evidence of treatment dates, quantities used or recipients removal;
 - there is no environmental impact assessment on a local basis before starting operations.

Harvesting

- There is no environmental or social impact assessment before harvesting operations;
 - The waters marginal habitats are not protected, sometimes logging is made along water courses, water crossed without pipe culvert;
 - The machine operators are not always fully aware in relation with the requirements related to the protection of water and of soil against erosion, related to fragile habitats protection;
 - not always the harvesting good practice was implemented;
 - trees are damaged during harvesting operation;

- the harvesting areas are not provided with locations for storing the waste (including oil and lubricants recipients), and no system of taking the waste is implemented;

- the machines used for harvesting operation are often obsolete.

Working and living conditions for forest workers

- chainsaw operators are not provided with full protective equipments and the provided equipment is not always used;

- national health and safety regulations are not always fully observed;
- inappropriate living conditions of forest workers;
- records of professional training provided to forest workers not always kept.

Relation with the local communities and other stakeholders

- no written evidence of the social impact assessment carried out at the local level before starting operations meaning that there is no evidence for results of consultation being incorporated into management planning operations;

- no evidence of meetings with the local communities or other stakeholders in order to inform them and to discuss about the forest management;

- a public summary of forest management activities is not developed.

Reaction to Certification. The general attitude toward FSC certification of the National Forest Administration has changed relatively quickly from opposition to approval. This is the general attitude but there are still enough foresters that consider the process superfluous, pointless and disagree with the idea of external control performed by a team including foreign experts. They consider the internal law and regulations good enough, if respected, to ensure the sustainable management of our forests.

Tab.2 Romanian forest management certificates

Organisation name	Issue date	Expiry date	Forest area (ha)
Baia Mare City Forests	June 2008	June 2013	8 045,00
OS Padurile Sincii	March 2011	March 2016	14 875,30
OS Private Baraolt	April 2010	April 2015	13 982,10
NFA – Romsilva (DS Arad, Timișoara, Suceava, Neamț)	May 2011	May 2016	619 397,00
NFA - Romsilva (DS Maramureș)	March 2011	March 2016	60 755,70
Total			717 055,10

(FSC data base, 2012)

The private owners are interested in certification only if they need the label for selling their wood. If they can sell it uncertified they show very little interest for the process, especially if they must pay themselves for the certification procedures. For example, the Năruja community forest didn't ask for recertification after the

expiration of the 2005 certificate, which was obtained with the financial support of WWF. It must be added that the compliance with the FSC standards is even more difficult to achieve for the private owners in comparison with the NFA.

The wood industry was next to NGOs, the trigger that starts the process of certification and remains the major pushing forward force. The current status of forestland certification: five forest management certificates (table 2) and 113 chain of custody certificates. Among the five forest management certificates, two are for state forests, the other three for private forests.

Currently, the larger certified area is the state one, managed by the National Forest Administration (figure 6).

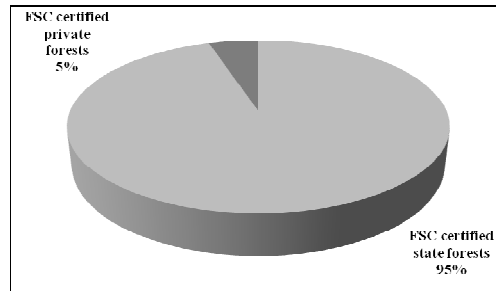


Fig.6 Romanian FSC forest certificates by tenure ownership

From its initiation until today the forest certified area has constantly increased (figure 7). After the certification of the entire state forest managed by NFA, the increment of certified forest area will be done only on the account of private forests. Consequently, the evolution of certification process will be obviously less spectacular.

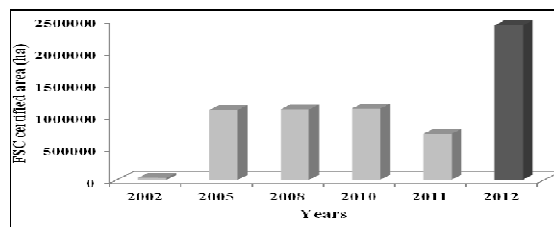


Fig.7 FSC forest certified area in Romania from 2002 to 2012

From 2002, when the first Romanian forest was certificated, the certified area registered an increasing trend. Beginning with 31 611 ha, in 2012 it will be around 2.4 million ha. The decline in 2011 is only elusory, because during this period of

time, around 1.7 million ha of state forests was in the assessment period for further certification.

Effects of Forest Certification

Power: A significant effect of certification is the possibility created for all the forest stakeholders to come together and discuss about their issues related to the forest management. Not long ago, only the NFA took decisions regarding the forest; in the certification process, the NFA decisions must consider the opinions of various other stakeholders from local communities, citizens, NGOs, wood industry, etc. The meetings and activity of National Working Group for Forest Certification create the framework for the elaboration of the national standards for sustainable forest management; even if the final draft is pending on, a step forward was made by bringing the environmental and social issues of the forest management to attention.

Another step forward is considered the forest administration acceptance of external review of the manner and techniques of forest management.

Social: The transition to a capitalist economy, the struggle for subsistence and the spreading of a consumerist attitude often deviate the public attention from the environmental problems. It can be stated though, that generally, people distrust state authorities and they tend to consider that the forests have been destroyed along with everything else in the process of socialism breakdown. The public reaction to the matter is a lot of talking but little action. The awareness about certification is low and there is no demand for certified wood products on the internal market.

The certification improved the security, health and training of the forest workers. The logging companies can't afford to assure work and living conditions comparable with the ones from developed countries but the situation of protective equipment and work training is better than before certification. An annual summary report of forest management should be available for public access.

Economic: The NFA does not receive higher prices for the certified wood, but the logging and wood processing Romanian companies that buy FSC wood are exempt from paying the taxes for the environmental fund. The certification helps forest managers to gain and maintain clients who demand FSC certified wood. Considering that Romania is a net exporter of wood products in the European Union countries, certification is an important advantage in the market competition. Because the economic crisis hit the Arab countries, regular buyers of Romanian timber, some of Romanian firms must turn to the European and Japanese market where certification is needed.

On the other hand, certification means direct and indirect costs (additional costs for environmental protection, workers training and safety, new technologies

and machines etc.); therefore, if private owners find easily clients for uncertified wood, the certification became unappealing for them.

Environmental: The environmental awareness of forest stakeholders and public was increased by means of trainings, manuals, brochures, internet sites, workshops regarding the forest certification.

In order to comply with the criteria and indicators of FSC certification principles, the forest managers have been setting up measure plans for biodiversity inventory and monitoring, for preserving a certain amount of dead wood in forests, for avoiding FSC forbidden pesticide use, for reducing the environmental impact of logging or any other forestry activities.

Certification brought a new concept related to forest ecosystems preservation: the High Value Conservation Forests. The concept is more comprehensive and more complex in comparison with the usual Romanian categories of protective forests. The HVCF designation considers the biodiversity concentration zones, representative forest ecosystems, and the cultural, religious and spiritual importance of forests for the human communities.

Conclusions

The certification process was initiated by NGOs for tropical forest protection but has expanded relatively quickly in temperate and boreal forests. The certification is a market mechanism for promoting sustainable forest management all over the world.

The interest for certification in our country has two major reasons. The first is that our country is a net exporter of furniture and wood products (around 70% of wood products are exported and 75% of furniture) and the foreign markets demand for certificated wood. The second reason is the forest restitution process (up to a half of all forested areas) which places a great pressure on forest ecosystems in the context of transition to a market based economy, and the certification is a mechanism that can be used to protect them.

The first two state forests in our country, Văratec and Târgu Neamț received a FSC certificate for 31 611 ha in 2002. In 2012, an area of 680 152.7 ha of state forests and 36 902.4 ha of private forest are FSC certified, with another 1.7 million ha of state forest in certification process. From the total, 95% is state certified forest and 5% private forest. The certification process highlights the necessity of completing the certification standards, and some non-compliance with the generic FSC standards that must be resolved: biodiversity evaluation, inventory, monitoring and map localisation, identification and adequate management of High Conservation Value Forests (HCVF), deadwood preservation, pesticide use surveillance, environmental and social impact assessment before forestry

operations, harvesting related to environmental damage, inappropriate working safety and living conditions and insufficient training for forest workers.

The certification effects in Romania are complex and among the most significant ones can be mentioned: the possibility for all the forest stakeholders to come together and discuss about forest management adjustments, the forest administration acceptance of external review of the manner and techniques of forest management, improved security, health and training of forest workers, an annual summary report of forest management available for public access, access to demanding markets, direct and indirect additional costs, biodiversity conservation, identification and management of High Value Conservation Forests. For private owners, the forest certification is much less attractive and they use it only if they have clients who demand for certified wood.

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