



COST Action E 51

**Integrating Innovation and Development Policies for the
Forest Sector**

**COUNTRY REPORT
PHASE I**

ROMANIA

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I. Structure of the country report

This chapter provides an outline of the country report structure. It consists of an introductory section, the input to chapter 3 of the guidelines (Chapter 2 of the Report) as well as all filled in tables for Part A and Part B for the five concerned policy documents separately (Chapters 3.-7. of the Report).

The present report ~~developed more in detail the Forest Policy area, and~~ provides only general information on the Regional Development Policy and Renewable Energy Policy. These policies do not have a considerable evolution up to present. It is expected that in the framework of European integration further progress to be achieved. The Forest-Based Industries Policy and the Rural Development Policy are missing from this report.

Gelöscht: It should be specified that

1. Introduction
2. Innovation areas in forestry in the country (input to chapter 3)
3. Forest Policy – National Forest Programme
 - 3.1 General information - based on Part A of document analysis
 - 3.2 Integration of innovation - based on Part B of document analysis
4. Innovation Policy – National Reform Programme
 - 4.1 General information - based on Part A of document analysis
 - 4.2 Integration of innovation - based on Part B of document analysis
5. Regional Development Policy
 - 5.1 General information - based on Part A of document analysis
 - 5.2 Integration of innovation - based on Part B of document analysis
6. Sustainable Development Policy
 - 6.1 General information - based on Part A of document analysis
 - 6.2 Integration of innovation - based on Part B of document analysis
7. Renewable Energy Policy
 - 7.1 General information - based on Part A of document analysis
 - 7.2 Integration of innovation - based on Part B of document analysis
8. Research Needs

Gelöscht: List research needs and research questions you have identified during your analysis.¶

II. Structure of country reports

1. Introduction

Romania is the seventh largest EU Member State (population 21.6 million in July 2006). The economy lags significantly behind the majority of EU countries. In 2005, GDP per capita was 34.8% of the EU-25 average and around 55% of the new EU Member States average. Romania's recent macroeconomic performance has been favorable (6% annual GDP average growth over the last six years) in spite of the worsening world economic outlook. GDP growth has been driven by high fixed investments and private consumption, fuelled by strong growth in credit to the private sector. The EU conferred functioning market economy status on Romania in October 2004 due to the significant progress made in the implementation of economic reforms.

The level of Research Technological Development and Innovation (RTDI) activity in Romania remains very low, despite the existence of an academic tradition covering more than 50 scientific and technological areas and Romania's efforts to align to EU standards. Romania spent 0.40% of its GDP on R&D in 2005 (of which 0.22% public expenditure), less than half of the average in the new Member States - 14, and one fifth of the EU-25 average (2% of GDP). Although the public budget allocation on R&D expenditure has almost doubled in 2006 to 0.38% of GDP, in order to achieve the target of 2% of GDP, the private sector investments in R&D expenditure must also increase significantly.

The National RDI Strategy was elaborated in 2006 and identified 9 thematic areas of interest for applied-research and precompetitive-development activities (ICT; energy; environment; health; agriculture, food security and safety; biotechnologies; advanced materials, products and processes; space; socio-economics).

The main source of innovation is through the import of technology and equipment, rather than the result of Romanian research and development activity. Foreign companies are the promoters of research and technology transfer. However, this is often related to low value-added products or out dated technology. In Romania, there are 40 centers of excellence, but business-to-business relationships are lacking. Similarly, business relationships and partnerships with R&D and education need to be improved to foster innovation and stimulate growth. The National Programme for the Development of the Innovation and Technological Transfer Infrastructure – INFRATECH provides financial and logistic support for institutions specializing in innovation and technology transfer infrastructures, as well as for scientific and technology parks.

The framework for technological transfer as well as some information centers and business incubators have been set up but they have not yet had a sufficient impact on the national economy. Infrastructure for the support of these technological transfer and innovation remains poor and development remains a major plank of the Government policy. There are 7 scientific and technological parks in Romania that are unevenly distributed in the eight Regions. Currently, only 3 are operational (Galati, Iasi and Brasov). The 4 remaining parks are not functioning due to lack of business residents, financial constraints and lack of partnership support from local authorities.

Other national programmes provide support for partnership developments and are grouped in the National Plan for R&D and Innovation. 30% of the budget for this Plan is provided by the private sector. In the period 2005-2008, the Programme „Research for Excellence“ is implemented with the scope of developing the research potential in the thematic priorities of the future EU Framework Programme 7, and preparing the scientific community for a successful participation in this Programme.

Romania lags behind other European countries in terms of business innovation. In the period 2002-2004, only 19.7% of the companies carried out successful innovative activities. This percentage is much lower than in the EU-15, where 44% of the companies were considered innovative in the period 1998-2000. Only 16% of small enterprises and 25% of medium-sized companies are innovative, and the share of SMEs cooperating with national and foreign companies is below 3% for small companies and 5% for medium-sized enterprises. Most of the innovation activities (67%) in Romanian enterprises relate to

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products and processes and 62% of innovation expenditure result in the acquisition of new machinery and equipment (of which SMEs represent 69%).

On the other hand, a large part of the innovative companies (86%) are SMEs, out of which 55.2% are small enterprises and 30.9% are medium sized enterprises activities (data source: the Romanian Innovation Survey carried out by the National Institute of Statistics, where an innovative enterprise is defined as enterprise which introduced or implemented at least one new or significantly improved product - goods or services - or process on the market).

The consequence of low levels of innovation, coupled with low productivity as a result of outdated technology and management, is that Romanian exports are restricted to predominantly low value added and low cost sectors. To improve the Romanian economy, the need is to stimulate company growth in international markets particularly those in the high added value markets areas. The trend for exports has been moving from low value added to higher value added products. The actions proposed will support the continuation of this positive trend.

Romania participates in the sixth EU Framework Programme for RDI (2000-2006), is preparing for the participation to FP7 (2007-2013), and is committed to implement the European Research Area. Romania has signed bilateral and international agreements and treaties on science and technology. Apart from the national funds, the R&D sector has also financial advantages deriving from its connection to the RDI system of the EU, in particular the RDI Framework Programmes and the Euratom Programmes, as well as other European, and international initiatives like NATO, EUREKA, COST.

Although at national level exists fundamental researches regarding economical activity in the forest sector (silviculture and wood industry), must be observed that little information are available about the behaviour of the small and medium size agents from the wood industry, and especially from the first compartment, the primary manufacturing industry.

According to a study made by National Statistic Institute (NSI, 2004), the SMEs hold an important weight in this sector. Placed almost in exclusivity in the rural medium, those firms are important for the creation of the labour places and for the maintenance of the cultural and traditional values of some rural regions. On the other hand, the SMEs from the primary wood industry are the first link in the economical capitalization of the forest resource. It results from this their importance for definition of durable development strategies of the forest sector. It is well-known the pressure upon the forest exploitation companies because of the intermediary position that they have within the wood channel, between the offer of wood weight, narrow settled so far resulting from a quasi-monopole, and the primary assortment demand for the wood industry from downstream, with increasing quality exigency. In these conditions, the introduction of the *new*, under its different aspects (produces, services, organizational, informational and relational innovation), becomes an obligatory way for the firm's survival and adaptation to the market. The results of a study about the firms from the furniture industry (Stanciu, 2001) prove that there is a meaningful innovative process in the quality management. Unfortunately, there are not research results about the primary manufacturing wood industry, on which, generally, are known little things regarding the structure, upright integration, and the inter-agents coordination mechanisms. The knowledge of these aspects of the forest sector development could be favourable to the wording of the industrial and durable regional politics.

The competitiveness is determined, for instance, by horizontal frame condition that applies to the firms, no matter the sector that they activate. In the wood industry sector, the competitiveness is affected by the respective elements of the sector, like settlements that are applied only to the products from this sector.

Gelösch: The neo-classical theory places the innovation and the information production among the central causes of the economical welfare and competitiveness. The information is considered a production factor capable to determine the economic increase. The globalisation and new technologies create opportunities for economic increase. It results the amelioration of the products quality, costs reduction, adaptation at the customer's demands, and the conception of new products. These are the foundations on which innovation was included in The Declaration from Vienna for the forests protection and in the forests strategy and in the European strategy for research (EU 6th Framework Program for Research). ¶

There are different models for innovation study, classified in two categories, linear models and systemic models. The linear models are based on the presumption of the linear remittance of the information from the research-development structure, to the industrial corporations and next to the market, or, in the rural medium, from the agricultural research stations and universities to the farmers. The systemic models reckon with the complexity of the intra-firm and inter-firms relations. The fundamental research on innovation developed more in the 90s, marking an evolution from the linear models to the systemic ones. Concerning the entrepreneurship, in spite of the recently political interest, exists some researches on the forest sector, and the analysing theoretical frame is not fully established (Rametsteiner, 2004). Recent studies made by regional centre of the European Forest Institute from Vienna (INNOFORCE, on line) shows that the economic agents do not ... [1]

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2. Innovation areas in forestry in the country (input to chapter 3)

Table 1: Innovation areas

Type \ Area	Territory based services	Value added chain
Product	Eco-tourism based services Carbon sequestration services	Wood houses (log and panels) Pellets, briquettes, wood fuel
Process	Biodiversity	Bio energy
Marketing method	Selling timber on the road, new selling procedures	
Organisational model	Association of forest owners National Parks	Regional Associations of wood harvesters (Asociatia lemnarilor)

Table 2: Documents analysed for each policy area

<p>Forest Policy (Regional or National Forest Programme): Document: National Forest Programme Publication Date: na, 2005 Website: not existing Supplementary documents: Contract nr. 80/2004, Additional contract 1/2005</p>
<p>Forest Based Sector Policy (Sector Policy Strategy), if any: Document: National Strategy for Forest Sector Development (Politica si Strategia de dezvoltare a silviculturii din Romania - 2001-2010) Publication Date: na Website: http://forestry.ro/documente/strategia.htm Supplementary documents: Name and reference number</p>
<p>Innovation Policy (Regional or National Reform Programme): Document: National Plan for R&D and Innovation (NPRDI) 2007-2013 Publication Date: Website: Supplementary documents: Strategie de dezvoltare a sistemului CDI pe perioada 2007-2013 bazata pe elementele unei planificari strategice (on going, by CNCSIS)</p>
<p>Rural Development Policy (Regional or National Rural Dev. Programme, Forestry Part): Document: PROGRAMUL NATIONAL PENTRU DEZVOLTARE RURALA 2007 -2013 Publication Date: 1.10.2006 Website: http://www.mapam.ro/pages/dezvoltare_rurala/PNDR_2007_2013.pdf Supplementary documents: National Strategic Plan on Rural Development, Programme Sapard</p>
<p>Regional Development Policy (Regional or National Regional Dev. Programme): Document: Regional Operational Programme 2007-2013 Publication Date: Website: Supplementary documents: Name and reference number</p>
<p>Sustainable Development Policy (Regional or National Sustainable Dev. Strategy): Document: National Development Plan 2007-2013 Publication Date: Website: Supplementary documents: Name and reference number</p>

3. Forest Policy – National Forest Programme

3.1 General information - based on Part A of document analysis

Romania is a 6.3 million ha forested country, with an annual harvested volume of 16-18 million m³ (Fig. 1). Most of forests are located in mountains (58.5%). Only 50 to 40% of the annual growth of forests is used yearly. The timber for industrial utilization accounts roughly for half of the annual removals (8 to 10 million cubic meters).

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The restoration of ownership started in 1991 and lead today to a balanced ownership structure. The State forests, managed by Romsilva (National Forest Administration), account for two thirds of forest area. Regarding the raw material procurement for the forest industry: during the latest 15 years, Romsilva used to be the main timber provider for the industry. Nowadays situation changed, e.g. the share of the communes in the total timber supply increased from 1.3 million cubic meters in 2001 to 2.85 in 2007. Romsilva will supply 56% of timber in 2007 alone and it is likely that in reality Romsilva will supply also a part of timber from other forest owners (because of administration contracts or simply because the other forest owners will prefer to sell with Romsilva). The fragmentation of private individuals' ownership (0.7 million ha, or 2.2 million m³) hamper at least in short run the timber availability on the market.

In the absence of a specific legislative frame, the innovation in forest industry is following the market incentives. The research is not a source of information or knowledge for innovating in the forest sector, yet there are two institutes that might supply knowledge:

1. The Forest Research and Management Planning Institute (ICAS), the main national research and forest management planning institution in the forestry sector. ICAS is a public institution subordinated to Romsilva, with some 700 employees. The activities focus on:

- scientific research – forest protection, forest ecology, forest management, forest techniques, mechanisation, and other fields of research

- planning and engineering of road projects, environmental restructuring projects, etc

- forest inventory and forest management planning – preparation of Forest Management Plans

2. The National Institute for Wood (INL) mainly focuses on the board and mechanical wood processing industries – sawmills, furniture factories, etc. It is a state owned institute but is today acting as an independent and financially autonomous organisation. The institute carries out economic studies, evaluations, development studies, etc. and provides consulting and engineering services for the domestic market as well as internationally. INL employs some 200 people of which 130 are specialists divided into 3 main business areas:

- research and development of wood based industries

- design of forest roads (over 40 000 km of forest roads have been designed), industrial design and engineering (furniture, board industry, etc.)

- operating a small production plant for furniture and other small solid wood products

A third institute, the Research and Development Institute for Romanian Pulp and Paper Industry (Ceprohart), 60 employees in RD, has unclear situation: there are plans to privatise, or to stop its activities.

Research activities are also carried out in the universities, but innovation subject or development of new products for forest-related industry is not a topic of significant interest.

The fundamental legislation for the forestry sector is the Forestry Code of 1996. The Forestry Code is supplemented by a huge number of additional laws and governmental regulations. A new forest code (the fourth draft in the latest three years) is under discussion in the Parliament.

The forest policy is focusing around the concept of sustainable forest management. Few attention is paid to the capacity of the forestry to satisfy societal or forest industry development needs.

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(Großbritannien)

The main policy documents for forest sector are the National Forest Strategy (Policy and strategy of forest sector development in Romania in 2001-2010), adopted in 2001 and updated in 2005, and the National Forest Programme from 2005.

The NFP does not specifically consider or reflect the expected development of the wood based industry. No reliable information on present or expected future demand/supply balances or future development of forest-related activities are available.

Starting in 2005, the National Institute of Wood (INL) began preparing a "forestry and forest industry development strategy" covering the period up to 2010 at the request of the Ministry of Economy and Commerce (MEC). The strategy claims to cover the whole chain from forestry to the wood based industries (sawmills and other mechanical wood industries, wood based panel industry, and the pulp and paper industry). However, no results are publicly available at the moment.

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Table 3.1: National Forest Strategy

Name:	Politica si strategia de dezvoltare a sectorului forestier din Romania (2001-2010) / Policy and strategy of forest sector development in Romania (2001-2010)
Adoption: Please mark by whom and at which level the document is adopted	<input type="checkbox"/> Parliament <input type="checkbox"/> Government <input checked="" type="checkbox"/> Ministry: Ministry of Agriculture, Forests and Rural Development <input type="checkbox"/> Others: _____ <input type="checkbox"/> No formal approval Level: <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional <input type="checkbox"/> Local Adoption date: 2001, updated 2005
Validity period:	2001-2010
Revision:	No revision/ update formally planned.
Monitoring/ Evaluation:	The implementation of the document is not formally monitored.
Related documents:	The document amends a previous forest strategy for the period 2001-2005. The document is related with the National Forest Programme.
Geographical scope:	<input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____
Budget:	No budget forecast
General description of contents as written in document	
Objective of the document	Forest sector development, to increase the forest contribution to the life quality, in a sustainable way Update the legal framework to facilitate the unitary implementation of the national forest strategy Encouraging the association of private forest owners and the association of harvesting and processing firms
Priorities	Management of forest resources according to the sustainable forest management requirements Integration of harvesting and processing activities in a concept of sustainable management of natural resources, for a better valorisation of timber Valorisation of forest resource by providing high value added forest products Development of forest research on sustainable forest management, economic recovering of forest sector, and on increasing forest contribution to the life quality
Structure	For each of the priorities mentioned above, the document presents objectives and strategic actions to be undertaken, and put in a table for each action a time frame, a responsible structure and its partners.
Measure Areas	The document presents a set of actions and concrete measures for each of four areas.
Follow-up / Implementation	
Follow-up measures:	<input type="checkbox"/> No follow-up activities so far <input checked="" type="checkbox"/> New or adapted funding programme(s) /budget line; name: Funds for compensation of private owners and for forest management planning in private forests of the individuals <input checked="" type="checkbox"/> New or adapted regulations/laws; name: The National Forest Programme; Governmental regulation on forest administration <input checked="" type="checkbox"/> New or adapted informational campaigns/instruments; name: The Forestry Development Programme, a 25 million dollars loan of International Bank for Reconstruction and Development <input type="checkbox"/> New or restructured institutions/organisations; name: _____ <input type="checkbox"/> Implementation in forest policy: _____
General comment:	

← - - - - **Formatiert:** Standard, Links, Absätze trennen

Table 3.2: National Forest Programme

Name:	National Forest Programme
Adoption: Please mark by whom and at which level the document is adopted	<input type="checkbox"/> Parliament <input type="checkbox"/> Government Agriculture, Forests and Rural Development <input type="checkbox"/> Others: _____ Level: <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional <input type="checkbox"/> Local Adoption date: 2005 <input checked="" type="checkbox"/> Ministry: Ministry of <input type="checkbox"/> No formal approval
Validity period:	not defined
Revision:	No revision/ update formally planned, but one section requires the adaptation and evaluation of the programme according the MCPFE criteria on sustainable forest management.
Monitoring/ Evaluation:	The implementation of the document is not formally monitored, no evaluation has taken place. However, evaluation is foreseen - see above.
Related documents:	No amendments of the document Actions to be undertaken are further detailed in the National Forest Strategy
Geographical scope:	<input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____
Budget:	No budget forecast
General description of contents as written in document	
Objective of the document	Enhancing the sustainable management of the Romanian forests Harmonising the economic requirements of forestry activities with the imperative of increasing the role of forests in improving the environment and life conditions
Priorities	Adapting policies, institutions and instruments to the sustainable forest management requirements Conservation and development of the forest resources for improving environment and life conditions Multifunctionality of forest ecosystems, maintaining and improving their stability and their health; Conservation and improving of biological diversity of forest ecosystem Intensification of forest production functions Maintaining and intensification of protection and social functions of forest ecosystems Contribution of education and of scientific research to the development and implementation of the SFM concept
Structure	After the introduction, the document takes one by one all the priorities mentioned above, presents the current situation, problems and trends and the needed set of actions. No indicators are mentioned, neither responsible actors.
Measure Areas	The document presents only a set of actions. It does not provide concrete measures.
Follow-up / Implementation	
Follow-up measures:	<input checked="" type="checkbox"/> No follow-up activities so far <input checked="" type="checkbox"/> New or adapted funding programme(s) /budget line; name: National Forest Strategy <input type="checkbox"/> New or adapted regulations/laws; name: _____ <input type="checkbox"/> New or adapted informational campaigns/instruments; name: _____ <input type="checkbox"/> New or restructured institutions/organisations; name: _____ <input type="checkbox"/> Implementation in forest policy: _____
General comment:	

3.2 Integration of innovation - based on Part B of document analysis

The tables are filled in for the two main documents of the Forest Sector: the National Forest Strategy (2001-2010), and respectively the National Forest Programme (2005).

Overall innovation orientation

Table 4.1: Part B - Overall Innovation Orientation – National Forest Strategy (2001-2010)

<p>Overall innovation orientation (use word search function).</p>	<p>Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods', 'new business models') in the document</p>	<input checked="" type="checkbox"/> never <input type="checkbox"/> sometimes <input type="checkbox"/> frequently
	<p>Please mark the frequency of occurrence of the forest sector '<u>innovation frontier</u>' – innovation areas identified in Chapter 3 - in the document</p>	<input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently
	<p>Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness</p>	<input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Terms used: Modern/modernise/modernisation; research-development; improve/improvement; develop; diversify;
	<p>Further comments on overall innovation orientation of the document: The generic terms related to innovation are missing. However, "sometimes" are used in the document terms that leads as to activities with novelty character especially in sub-fields as: Forest Harvesting and Wood Processing; Forest Management Planning; Forest Legislation; Marketing; Education; R&D.</p>	
<p>Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)</p>	<input type="checkbox"/> No relevance at all <input checked="" type="checkbox"/> Marginal issue <input type="checkbox"/> One issue among others <input type="checkbox"/> Important issue <input type="checkbox"/> Central issue Comments: There are no direct mentions about innovation and its importance to forest sector development. The aspects related to innovation are treated as marginal issues and the document makes evasive forwarding to innovation using some terms or expressions that are not very concise.	
<p>Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry</p>	<input checked="" type="checkbox"/> very general (<i>innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document</i>) <input type="checkbox"/> rather general (<i>innovation is addressed in overall goals, needs are identified but no specification of measures</i>) <input type="checkbox"/> rather specific (<i>innovation is addressed in concrete goals, measures are formulated</i>) <input type="checkbox"/> very specific (<i>quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist</i>) Comments: The entire document has a general character; there are only indicated on sub-fields the strategic objectives of forestry. The realisation of some objectives involves innovative activities but the document makes no specification in that sense and it just allows to believe that innovations are necessary.	
<p>Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1</p>	<input checked="" type="checkbox"/> Predominately traditional science and technology policy <input type="checkbox"/> Traditional S&T policy with systemic elements <input type="checkbox"/> Systemic innovation policy with S&T policy elements <input type="checkbox"/> Predominantly systemic innovation policy Comments: Traditional science and technology approach prevails, and it is characterised by: linearity, innovation – final result; lack of collaboration between fields; financial support offered by state.	
<p>Goals and objectives: The document does not specify any quantitative objectives. Main qualitative objectives are: modernisation of the IT system in the forest administration; modernisation of forest planning management system; promoting a regional-based sylviculture; improving of forest monitoring system; promoting an adequate strategy for stimulate the association of forest owners; developping the activities of information, forest extension and consultancy; modernisation and development of forest harvesting capacities; development of equipments and machineries for forest harvesting; development of the national forest bourse for trading forest products at the national level; improvement of the system of the R&D.</p>		
<p>Issues, problems and related topics: The most important aspects involving innovative activities belong to: forest administration; forest management</p>		

<p>planning; supporting measures for private forest owners; creating public awareness; forest harvesting, transportation and primary processing; marketing.</p> <p>The program describes these issues at a very general level, without specifying any accompanying measures. The processes of innovation are not forecast explicitly, and even the term innovation is not use explicitly. Innovation processes can be only intuitively supposed as underlining the above mentioned issues.</p>
<p>Innovation areas:</p> <p>Innovation areas, as suggested by the actions forecast in the document are: forest harvesting and timber processing; forest management planning; marketing; forest education; research. However, there areas are nominated in the document not because the decision making process wanted more innovative actions, but because the decision making needs fundamental changes in these directions.</p> <p>In the same time, the innovation implemented in the field (table 3.1) concern forest services, marketing method, new timber-based products: the innovation areas as understood in the document and the innovation in the real life are not connected.</p>
<p>General comment:</p> <p>How improved intersectoral coordination could lead to a change in forest policies to include innovation issue?</p> <p>Which main stakeholders, from sector or not, could bring the issue of innovation in the national forest policies?</p> <p>Are they the forest policy process and the national innovation system completely disconnected?</p>

Table 4.2: Part B - Overall Innovation Orientation – National Forest Programme 2005

<p>Overall innovation orientation (use word search function).</p>	<p>Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', 'new marketing methods', 'new business models') in the document</p>	<input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently
	<p>Please mark the frequency of occurrence of the forest sector '<u>innovation frontier</u>' – innovation areas identified in Chapter 3 - in the document</p>	<input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently
	<p>Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness</p>	<input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently <p>Terms used: modern, develop, competitiveness, entrepreneurship, improve</p>
	<p>Further comments on overall innovation orientation of the document: Unfortunately the terms which should present the necessity of innovation for Romanian forest sector development in the period 2001-2010 are quite rare used in the document so that we can qualify the innovation orientation as situated somewhere between the variants: "never" and "sometimes". A more appropriate approach at least for the generic terms should be the utilisation of another variant: "extremely rare".</p>	
<p>Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)</p>	<input type="checkbox"/> No relevance at all <input checked="" type="checkbox"/> Marginal issue <input type="checkbox"/> One issue among others <input type="checkbox"/> Important issue <input type="checkbox"/> Central issue	<p>Comments: The document has a more informal character on Romanian forest sector and it can be perfectly framed in the notion of "study". For that reason the solutions offered to actual existing problems in this sector are very sketchily drowned and the aspects with innovative character are few, or are even missing in some fields. Nowhere in the document is made a clear reference to innovation. Innovation necessity can be detached from some terms related to innovations as the ones fore mentioned.</p>
<p>Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when</p>	<input checked="" type="checkbox"/> very general (<i>innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document</i>) <input type="checkbox"/> rather general (<i>innovation is addressed in overall goals, needs are identified but no specification of measures</i>) <input type="checkbox"/> rather specific (<i>innovation is addressed in concrete goals, measures are formulated</i>) <input type="checkbox"/> very specific (<i>quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist</i>)	<p>Comments: As it was fore mentioned, the document is more a presentation of the</p>

concerning forestry	state of art and problems of forest sector. The measures involved by realisation of the proposed objectives or sub-fields are not clearly defined. Some of proposed objectives (intuitively) should involve innovative processes, but this is not mentioned clearly in the document.
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	<input checked="" type="checkbox"/> Predominately traditional science and technology policy <input type="checkbox"/> Traditional S&T policy with systemic elements <input type="checkbox"/> Systemic innovation policy with S&T policy elements <input type="checkbox"/> Predominantly systemic innovation policy Comments: The elements that define the Traditional S&T policy prevails, yet some systemic elements can be found also.
Goals and objectives: The main objectives presented in the document that might involve innovations are: creation of conditions for the market economy in forest sector; strengthening and diversification of socio-economic functions of the forest ecosystems; increasing the efficiency in forest harvesting and timber procession by modernization and by investment in appropriate equipments; enhancing the rational management of forests by taking new measures of legislative, administrative and normative nature; creating norms to stimulate the association of private forest owners and to stimulate economic performance; revising the forest administration structures according to the modifications operated in the forms of ownership; modernising the informational system of the forest central and local administration; modernising the informational system for silviculture and use of it as subsystem of GIS; modernising the forest management planning system; launching a special programme with actions for establishment of the national system of forest shelter screens. These are qualitative objectives and nowhere are mentioned in the document quantitative information.	
Issues, problems and related topics: The main issues and problems formulated in relation to innovations are: new policies and instruments (even institutions) in the context of sustainable forest management; conservation and development of forest resources for improving the life and environment conditions; intensification of forest protection functions; social functions of forest ecosystems and other socio-economic aspects of forest management; scientific research in forestry and specialised educational system. There is no detailed presentation regarding innovation processes in the document.	
Innovation areas: The most important innovation areas named by the document are: forest policy; forest administration; forest harvesting and timber procession; scientific research in forestry; educational system in forestry. As in the case of the National Forest Strategy, there are not connections between the potential innovation areas from the document, and the innovations in the field.	
General comment: How far the lack of participation of stakeholders to the establishment of the National Forest Programme lead to the absence of concrete innovation measures in the document?	

Innovation support measures

Table 5.1: Part B - Innovation Support Measures - National Forest Strategy (2001-2010)

Innovation support measures <i>Consult classification in chapter 2.2.2</i>	Research and Development	There are not clear measures established for R&D field. The document however forecast the establishment of pilot-projects on topics such forest information system; forest education curricula; creation of new products and marketing of new forest products; adaptation of forest administration structures to the ownership structure; new methods and processes, e.g. for producing forest plants, for organising forest owners associations, for promoting environmentally-sound harvesting technologies.
	Diffusion of innovation	Part of the measures in the document are indirectly supporting diffusion of innovation. Diffusion of products: There are measures to support the afforestation, to compensate the forest ecological effects; Diffusion of organisational models: there are measures to consolidate the participation of the society in the forest decision making process; measures for public extension services; Diffusion of process: the measures support the re-technologisation of forest sector; attracting investments; Diffusion of marketing methods: development of the national bourse system for the forest products; promotion of the certification; promotion and support of different Romanian brands on different markets.

	Strengthening the knowledge base	Support of the interdisciplinary research Development of the research in national and international interest fields Re-structuration and adaptation of the curricula Changes in the staff recruitment strategies for forest education The periodical training of forest owners Professional training for forest staff, and strategies to promote forest staff.
	Strengthening interaction	Horizontal cooperation between the territorial units inside the public forest manager, Romsilva; Vertical cooperation between the different hierarchical levels inside Romsilva, and between the forest enterprises and the Ministry of agriculture, Forests, and Rural Development; Private-public cooperation between the private forest managing units (forest districts) and the public forest districts; Intersectoral cooperation (although rather weak) between the Ministry of Agriculture, Ministry of Economy and Trade, Ministry of Internal Affairs, Ministry for Education All this cooperation are addressed in the document as a declaration, intent or normative concept, but there are not more detailed information about the nature of cooperation or the possibility to improve this cooperation.
	Demand creation	There are not concrete measures to increase the demand for forest products, however one of the strategic objectives is the creation of the public awareness (forest owners, forest holders, policy decision makers) about the role and importance of the national forest patrimony. This can have positive effects on the public reorientation and on the modification in medium run of the demand over the forest products and services.
	Improving frame conditions	There are measures that indirectly will improve the innovation milieu, such: measure to elaborate and promote mechanisms and instruments for administration and control based on the free market economy principles; elaboration of the National Forest Programme for sustainable forest management; encouraging (external) funds rising activities; encouragement of privatisations and investments; improving of the institutional and legal framework of the R&D activities.
	Comments: innovation support measures are of indirect nature, and appears not explicitly in the text.	
Priorities	The analysis of the document reveals that the most important priority seems to be attached to the R&D element. It seems that awareness is building around the importance of R&D for forest sector development. On the second place come the measures to improve the innovation milieu, yet these measures are indirect. The other elements are visible, but there are not amongst priorities; perhaps the document translates a situation of incipient thinking about innovation in forest sector.	
Assessment of overall relevance	Unfortunately, compared with the measures needed for the most of the objectives, the measures directly or indirectly related to innovation are under-financed and sources of financing are generally external (World Bank or some EU programmes); The State involvement in these programmes is weak.	
Promotion of innovation	The document analysed is the main document of forest policies, however the innovation is not a strong point of it. Instead promoting measures for innovation, the document remains in a passive role – it just mentions the fields where the innovation should occur.	
General comment:	How far the financing and supporting measures established in the document will allow innovation development and diffusion in the forest sector? Is research-development important because the decion makers believe in the liner model or innovation, or because they simply need information?	

Table 5.2: Part B - Innovation Support Measures- National Forest Programmes

Innovation support measures <i>Consult classification in chapter 2.2.2</i>	Research and Development	No support measures are specified by the document regarding research and development activities but we can make some suppositions analysing the programme: investment in appropriate equipments (as financial support); reorganization of forest administrative system (as organizational model); creating the requested instruments to improve conditions of sustainable management (as processes and institutional models); creating instruments to realize a market economy (by commercialization of new forest products).
	Diffusion of innovation	No measures are proposed or implemented by the document to target the diffusion of known products, processes, marketing methods, and organisational methods.
	Strengthening the knowledge base	Some support measures proposed by the document that aim at: re-structure of forest scientific research; re-size the educational institutions of all levels; improving the institutional and regulation frame of forest research and development of educational activities; strengthening the co-operation capacities and partnership at the national and international level; modernising the logistical support and increasing the level of professional performance; promoting complex, inter-disciplinary research; re-structuring and adaptation of teaching curricula; improving the present system of recruiting and promoting the didactic staff from forestry teaching at all levels; introducing long-life learning professional formation in forestry.
	Strengthening interaction	No measures are proposed or implemented by the document aiming to strengthening the interactions between key actors.
	Demand creation	There are no clear support measures proposed or implemented by the document that aim at promoting the demand for innovation.
	Improving frame conditions	No clear initiatives are presented in the document to improve the framework conditions for innovations. We can intuit some measures as: adapting forest Code and forest legislation at the new socio-economical environment (institutional reform); increasing the access to financial support offered by Romanian government or by other international organisms, or stimulating/supporting of the forest owners/managers with funds from special sources: SAPARD, Program Forestry, etc; continuous improving and adaptation of forest technical norms and standards.
	Comments: A document very weak in innovation-related measures and relevant objectives.	
Priorities	Qualitatively, from the above mentioned categories, the most important area for innovation support within the document it seems to be "strengthening knowledge base" followed by "improving frame conditions. The reason for this judgement is very simple: 1. the others areas are almost neglected and 2. Chapter 9 in the analysed document (regarding scientific research in forestry and specialized educational system) comprises more objectives well defined and with impact on forest innovation process in the mentioned underlined area.	
Assessment of overall relevance	The document doesn't furnish enough information regarding support measures for no objective so it can't be realised a realistic comparative qualitatively assessment from this point of view. Even so, analysing the programme, we consider that innovation area is frequently neglected compared to others fields.	
Promotion of innovation	Unfortunately not very much innovation is furthered by the document. The document represents one of the first steps in planning national forest processes in Romania. The document neglect the innovation issue, not because not consider important, but probably at the moment of elaboration any kind of expertise in the field was not available for forest decision makers.	
General comment:		

Cross sectoral coordination

Table 6.1: Part B - Cross-sectoral coordination – National Forest Strategy 2001-2010

Policy formulation	
Co-ordination with other processes and documents	There are no others processes or documents with which the mentioned document is formally co-ordinated.
Administrative Co-	<input type="checkbox"/> between different sections/departments within the same ministry;

ordination:	specify: ____ <input checked="" type="checkbox"/> between different ministries, specify: The ministries involved in administrative coordination activities related to forest sector and mentioned in the analysed document are: Ministry of Agriculture, Forests and Rural Development; Ministry of Commerce and Industry; Ministry of Education and Research <input type="checkbox"/> between ministries and other public organizations / agencies, specify: ____ <u>Comments:</u> MAFRD regulates all activities in forestry and forest harvesting. Formally other Ministries are consulted when establishing forest laws and re regulations. However, in practice, except this consultation of advising process compulsory by law, the coordination is weak.
Stakeholder involvement	<input checked="" type="checkbox"/> Forestry: name most important organisations: National Forest Administration Romsilva; Forest owners; Patronal and Professional Associations <input checked="" type="checkbox"/> Forest-based industries: name most important organisations: ASFOR, APAP, APM (Trade associations of forest harvestors and primary processign industries, pulp and papers industries and furniture producers industries) <input type="checkbox"/> Agriculture: name most important organisations: ____ <input type="checkbox"/> Tourism: name most important organisations: ____ <input type="checkbox"/> Energy: name most important organisations: ____ <input checked="" type="checkbox"/> Environment: name most important organisations: Non-governmental organizations, WWF, Grean Peace Romania, Coalition 2000. <input type="checkbox"/> Other sector: ____: name most important organisations: ____ <input type="checkbox"/> Other sector: ____: name most important organisations: ____ <u>Comments:</u> Mostly, formal involvement in the consultation process prior to the elaboration of new forest acts and regulations.
Coordination mechanisms:	<input checked="" type="checkbox"/> Formal (central) coordination body; name: Ministry of Agriculture, Forests and Rural Development <input type="checkbox"/> Formal coordination process <input type="checkbox"/> Inter-sectoral working groups <input type="checkbox"/> Inter-sectoral advisory body <input type="checkbox"/> Formal mandatory consultation process <input checked="" type="checkbox"/> Formal voluntary consultation process <input checked="" type="checkbox"/> Informal consultations (personal contacts and relationship of forest decions makers with people from universities, research institutes or NGOs) <input type="checkbox"/> Others: ____
Policy Implementation	
Responsible actors and their roles:	In the analysed document there is no explanation of the role of the main actors in the programme implementation.
Level of delegation	<input type="checkbox"/> Decentralized, e.g. <input checked="" type="checkbox"/> Central, e.g. ministry, public agency <input type="checkbox"/> Outsourced to private actors <input type="checkbox"/> Local, e.g. by municipalities <input type="checkbox"/> Regional, e.g. by regional public actors <input type="checkbox"/> Others: ____
General comment	na

Table 6.2: Part B - Cross-sectoral coordination - National Forest Programmes

Policy formulation	
Co-ordination with other processes and documents	There are no other processes or documents with which the considered document is formally co-ordinated - except the National Forest Strategy.
Administrative Co-ordination:	<input type="checkbox"/> between different sections/departments within the same ministry; specify: ____ <input checked="" type="checkbox"/> between different ministries, specify: Ministry of Agriculture, Forests and Rural Development; Ministry of Economy and Trade; Ministry of Environment and Waters Protection

	<input type="checkbox"/> between ministries and other public organizations / agencies, specify: _____ <u>Comments:</u> Actors involved are only mentioned and there is no explanation about them administrative role.
Stakeholder involvement	<input checked="" type="checkbox"/> Forestry: name most important organisations: Forest Faculty Suceava; National Forest Administration Romsilva; Association of Forest Owners from Romania; Association of Forest Managers from Romania; Association of foresters Romania; Institute for Forest Research and Management Planning <input type="checkbox"/> Forest-based industries: name most important organisations: _____ <input type="checkbox"/> Agriculture: name most important organisations: _____ <input type="checkbox"/> Tourism: name most important organisations: _____ <input type="checkbox"/> Energy: name most important organisations: _____ <input checked="" type="checkbox"/> Environment: name most important organisations: Ministry of Environment and Waters Management; Faculty of Environment Protection Oradea; Non-governmental association Grupul Verde Oradea <input type="checkbox"/> Other sector: _____: name most important organisations: _____ <input type="checkbox"/> Other sector: _____: name most important organisations: _____ <u>Comments:</u> The involved stakeholders are only mentioned and there is no explanation in the document of involvement type.
Coordination mechanisms:	<input checked="" type="checkbox"/> Formal (central) coordination body; name: Ministry of Agriculture, Forests and Rural Development <input type="checkbox"/> Formal coordination process <input type="checkbox"/> Inter-sectoral working groups <input type="checkbox"/> Inter-sectoral advisory body <input type="checkbox"/> Formal mandatory consultation process <input type="checkbox"/> Formal voluntary consultation process <input checked="" type="checkbox"/> Informal consultations (please describe Institute of Forest Research and Management Planning; Faculty of Forestry Suceava, Faculty of Environment Protection Oradea) <input type="checkbox"/> Others: _____
Policy Implementation	
Responsible actors and their roles:	In the analysed document there is no explanation of the role of the main actors in the programme implementation.
Level of delegation	<input type="checkbox"/> Decentralized, e.g. <input checked="" type="checkbox"/> Central, e.g. ministry, public agency <input type="checkbox"/> Outsourced to private actors <input type="checkbox"/> Local, e.g. by municipalities <input type="checkbox"/> Regional, e.g. by regional public actors <input type="checkbox"/> Others: _____
General comment	There are not clear measures in support of innovation, therefore the implementation can not be described as such.

4. Innovation Policy – National Reform Programme

4.1 General information - based on Part A of document analysis

After a decade of one of the poorest reform performances in the region, Romania is currently in the fifth year of continuous economic growth, mainly driven by investments and exports. The country's economic growth and poverty reduction are reflected by positive evolutions of most macroeconomic indicators and are the result of a combination of macro-stabilisation, disinflation and a reduction of the economic deficit. These factors led to an economic revival that suggests a consolidation of the catching-up process and convergence with the EU's economic and organizational structures.

Romania's innovation performance remains, however, very weak compared to other EU countries. Romania is part of the 'catching-up' group of countries, displaying on the one hand a positive economic trend based predominantly on low cost labour and low value-added exports, and on the other, a low level of innovation infrastructure and mechanisms, which are still at an early development stage and do not contribute

significantly to economic growth. Most innovation indicators illustrate this 'catching-up' trend, except for ICT expenditure, tertiary education, business R&D and EPO patents. Most notable are three indicators that are higher than EU-25 average: non-technological change in SMEs, new-to-market products, and ICT expenditure. The trends of main innovation indicators show high strengths for lifelong learning, public R&D expenditure (mainly related to the government commitment to gradually increase the level of public R&D funding to 1% of the GDP until 2007), EPO hi-tech patents and USPTO patents, and a moderate strength for S&E graduates. High and very high weaknesses are recorded for EPO patents and business R&D (related to the low innovative potential of Romanian firms, the strong tendency to import foreign technology and equipment, a low demand for domestic R&D and a predominant orientation towards trade and services).

The innovative profile of Romanian firms is still very low: over 80% of non-innovator firms, next to approximately 10% of intermittent innovator firms and a small percentage of strategic innovator, adopter and modifier firms. Innovative firms account for less than a fifth of the country's total number of active firms and workforce, and for about 42% of the total turnover of active firms. Innovative firms are predominantly SMEs (83.4%) and operate mainly in industry (73%), while the rest are active in services (trade, real estate, transport and communications). This situation is to a large extent the result of a very low level of public funding of innovation, with only 10% of innovative firms receiving funding, and very low levels of innovation expenditures, which don't exceed 3% of innovative firms' turnover. Although significant progress has been made in order to foster the weak innovation culture in the country, further measures are needed to increase application of R&D results by business and to turn innovation into a driver of national competitiveness.

In order to meet the country's need for a more sustained implementation of innovation, the 2005-2008 Government Programme defined four major innovation objectives and several measures to implement them. These objectives are also in line with the commitments made by the Romanian Government in the negotiations with the European Union (Chapter 17 'Science and Research') and include: new technology transfer mechanisms for forging long-term partnerships between the R&D sector and industry, increase of public R&D expenditure to 1% of the GDP by 2007, stimulating private sector R&D, strengthening of the institutional capacity and restructuring of the R&D sector.

In 2004-2005, the innovation governance system in Romania was faced with a mix of positive developments, e.g. the decentralisation of the decision-making system and externalisation of the RDI management system, improvements in the innovation legal framework, consolidation of the R&D system and slow-down of the brain drain, and problems arising from their effective implementation either at the decision-making level or at the programme management level. Much more still remains to be done in order to promote innovation, to make Romanian R&D more responsive to the needs of the economy and to enhance integration of Romanian researchers into international networks and programmes, particularly at EU level. These are areas on which the National Authority for Scientific Research is currently placing the strongest emphasis, especially in the context of Romania's expected accession to the EU in 2007.

In terms of innovation in business, Romania lags behind other European countries. In 2000-2002, only 17% of companies undertook innovative activities (data are based on the Romanian Innovation Survey carried out by National Institute of Statistics, covering the following sectors, extractive industry, manufacturing industry, energy and water and services. Only firms with 10 or more employees were included in the survey). This percentage is far behind the EU 15 data, where in 1998-2000, 44% of companies were considered as innovative.

4.2 Integration of innovation - based on Part B of document analysis

The majority of technological innovations refer to purchase of new tool and equipments (58% of all companies and up to 73% off small companies). A large part of innovative companies (47%) implemented innovative solution related to product design, marketing policy, strategies and management policy, and company structure. Despite the improvement, according to Networked Readiness Index, Romania still ranked 53rd out of 104 countries (compared with 61st out of 102 countries in 2003).

Only 13% of small and 21% of medium sized companies are innovative; the weight of SMEs that cooperate with foreign companies in R&D is less than 3% for small and 4,6% for medium enterprises.

The evolution of the R&D and innovation (RDI) field in Romania is undergoing important changes, mainly due to the near perspective of EU accession. The analysis of present RDI situation reflects the political and economic effort necessary for responding to accession requirements and for ensuring the necessary conditions to achieve the overall Lisbon objectives.

5. Regional Development Policy

5.1 General information - based on Part A of document analysis

Regional development is a concept that aims at stimulating and diversifying economic activities, stimulating investments in the private sector, contributing to decreasing unemployment and, last but not least, a concept that would lead to an improvement in the living standards.

In order to apply the regional development strategy, eight development regions were set up, spreading throughout the whole territory of Romania. Each development region comprises several counties. Development regions are not territorial-administrative entities, do not have legal personality, being the result of an agreement between the county and the local boards

Regional development policy is an ensemble of measures planned and promoted by the local and central public administration authorities, having as partners different actors (private, public, volunteers) in order to ensure a dynamic and lasting economic growth, through the effective use of the local and regional potential, in order to improve living conditions.

The main areas regarded by the regional policies are: development of enterprises, the labor market, attracting investments, development of the SMEs sector, improvement of infrastructure, the quality of the environment, rural development, health, education, culture.

Rural development has a very distinct place within regional policies, and deals with the following aspects: removal/reduction of poverty in the rural areas; balancing of economic opportunities and social conditions between the urban and rural areas; stimulating local initiatives; safeguarding of the spiritual and cultural patrimony.

The development region, constituted as a freewill association of neighbor counties represents the implementation and assessment framework of the **regional development policy**. The development region **is not a territorial-administrative entity** and does not have legal personality.

The main objectives of the regional development policies are as follows:

- to reduce the existing regional disparities, especially by stimulating the well-balanced development and the revitalization of the disadvantaged areas (lagging behind in development) and by preventing the emergence of new imbalances;

- to prepare the institutional framework in order to comply with the integration criteria into the EU structures and to ensure access to the financial assistance instruments (the Structural Funds and the Cohesion Fund of the EU);

- to correlate the governmental sector development policies and activities at the level of regions by stimulating the inter-regional, internal and international, cross-border cooperation which contributes to the economic development and is in accordance with the legal provisions and with the international agreements to which Romania is a party;

The principles that the elaboration and the application of the development policies are based on are:

- Decentralization of the decision making process, from the central/governmental level to the level of regional communities;

- Partnership among all those involved in the area of regional development;

- Planning – utilization process of resources (through programs and projects) in view of attaining the established objectives;

- Co-financing – the financial contribution of the different actors involved in the accomplishment of the regional development programs and projects.

The Regional Operational Programme 2007-2013 is a programme that implements important elements of the National Strategy of Regional Development of the National Development Plan, contributing, together with the other sectorial programmes, to the accomplishment of the general objective of the National Regional Strategy, namely to reduce the disparities between Romania's regions.

The Regional Operational Programme 2007-2013 –ROP, comprises all the eight Development Regions of Romania established by Regional Development Law no 151/1998, which was later amended by Law no 315/2004, in line with the provision of EC Regulation No. 1059/2003 with regard to the establishment of a common statistical classification of territorial units. The eight development regions are: North-East, South-East, South, South-West, West, North-West, Centre, and Bucharest-Ilfov.

For the period 2007-2013, the regional programme will be financed from the State Budget and co-financed from the European Regional Development Fund, one of the EU Structural Funds.

The comparative analysis of the Development Regions shows, after 1990, a process of increase of social and economic development disparities between regions. The development differences between the most developed region (Bucuresti-Ilfov) and the least developed (North-East Region), in terms of GDP/capita have increased almost three times. Meanwhile, an increase of disparities has been noticed between the Regions situated in the Western half of the country (North-West, Centre, West), with positive economic evolutions and an increasing level of numerous economic and social development indicators, and the less developed, situated in the Eastern half of the country (North-East, South-East, South and South-West).

Due to the emergence and dynamics of these processes, pointed out by economic and social analyses, the **global objective set out by the Regional Operational Programme** was the support of the regions that remained behind from the point of view of development and, in the case of the somewhat more prosperous regions, of the less developed zones, by turning into good account their specific resources, insufficiently exploited until now, with a view to accelerate the economic growth of these areas.

The main way to reach this objective is the differentiated allocation of the funds, in accordance with the general development level of the Regions, that is inversely proportional to the GDP/capita level, so that the less developed Regions may benefit, proportionally, from a higher financial allocation. These funds will be used to finance projects with a major impact on the regional and local development: rehabilitation and modernization of the transport, educational and health infrastructures, improvement of the business environment by developing the business support structures (industrial, technological, logistic, business parks etc.) and by supporting the entrepreneurial initiative, turning the tourist and cultural potential into good account by supporting the development of the tourist infrastructure and the entrepreneurial initiative in this field, support of the development of the urban centres with economic growth potential, in order to create conditions for them to act as engines for local and regional development.

6. Sustainable Development Policy

6.1 General information - based on Part A of document analysis

Table 7.1: Part A - General document information

Name:	National Development Plan 2007-2013
Adoption: Please mark by whom and at which level the document is adopted	<input type="checkbox"/> Parliament <input type="checkbox"/> Government <input type="checkbox"/> Ministry: _____ <input type="checkbox"/> Others: _____ <input type="checkbox"/> No formal approval Level: <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional <input type="checkbox"/> Local Adoption date:
Validity period:	2007 - 2013
Revision:	No revision - update formally planned
Monitoring/ Evaluation:	The implementation of the document is not formally monitored
Related	The document amends a preview economic strategy for the period 2007 - 2013

innovation in the document (one answer)	<input type="checkbox"/> Important issue <input checked="" type="checkbox"/> Central issue Comments: The priority Axis 1 on this document
Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry	<input type="checkbox"/> very general (<i>innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document</i>) <input type="checkbox"/> rather general (<i>innovation is addressed in overall goals, needs are identified but no specification of measures</i>) <input type="checkbox"/> rather specific (<i>innovation is addressed in concrete goals, measures are formulated</i>) <input checked="" type="checkbox"/> very specific (<i>quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist</i>) Comments: The target beneficiaries are both the existing enterprises that need to modernize and develop their products and technologies processes, and new enterprises, especially from processing industry and specialized services
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	<input type="checkbox"/> Predominately traditional science and technology policy <input checked="" type="checkbox"/> Traditional S&T policy with systemic elements <input type="checkbox"/> Systemic innovation policy with S&T policy elements <input type="checkbox"/> Predominantly systemic innovation policy Comments: The identified possibilities to improvement areas of intervention
Goals and objectives: The identified possibilities to improvement areas of Main objectives are: productive investments and preparation for market competition, especially of SMEs, access to credit and financing instruments for SMEs, entrepreneurship development	
Issues, problems and related topics: Most SMEs in Romania are not well prepared to answer their mission of economic engine. The low competitiveness is caused by the limited capacity to adapt to European standards, limited access to financial sources for investments in new technologies and implementing the quality system as well as to the poor access to consultancy services supporting their adequate orientation on the market.	
Innovation areas: increasing productive investments and improving access to market according to the principles of sustainable development.	
General comment: Join R&D cooperation between universities, research institutes and enterprises (wood industry) for generating results directly applicable in the economy, with the aim of creating new or improved products, technologies and services of high added-value.	

7. Renewable Energy Policy

7.1 General information - based on Part A of document analysis

Romania has five main types of renewable energy resources: wind, hydro, solar, biomass, geothermal. The energy potential of biomass is about 7,594 thousand toe/year (agricultural and wastes) Romania has a potential of about 167 thousand toe/year.

At present, the weight of energy produced from renewable energy resources in the total energy consumption is about 29%, mostly produced in large hydro power plants. In Romania, the valorisation of renewable resources is low due to high investment costs. RES could lead to a decreased financial effort to acquire primary energy sources (fossil fuels: coal, gas, oil) and environment benefits (green energy).

8. Research Needs

The following research questions related to the National Forest Strategy stem from the above analysis:

-How improved intersectoral coordination could lead to a change in forest policies in order to include innovation issue?

-Which main stakeholders, coming from sector or not, could bring the issue of innovation in the national forest policies?

-Are they the forest policy process and the national innovation system completely disconnected?

As regards the National Forest Programme one might be interested in knowing if there is a connection in between the lack of participation of stakeholders in the establishment of National Forest Programme and the absence of concrete innovation measures in the document.

Concerning the innovation support measures emphasized in the National Forest Strategy, one might raise the question of how far the financing and supporting measures established will allow innovation development and diffusion in the forest sector.

An overarching question relates to the significance of research in this field: is research-development important because the decision makers believe in the linear model or innovation, or because they simply need information?

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<http://www.mct.ro> - Government Ministry of Education and Research

http://www.mct.ro/ancs_web/img/files_up/1188316504strategia%20eng.pdf

<http://www.animmc.ro> National Agency for SMEs and Co-operation

<http://www.osim.ro> State Office for Inventions and Trademarks

Gelöscht: Nastase, C., 2002, Reorganization strategies in wood industry in Bucovina, The National Symposium for the Regional Development, Romanian Statistic Society, Bucharest

<https://www.orda.ro> Romanian Office for Copyright

<http://www.asro.ro> Romanian Standards Association (ASRO)

<http://www.renar.ro> Romanian Accreditation Association (RENAR)

<http://www.rosa.ro> Romanian Space Agency (ROSA)

The neo-classical theory places the innovation and the information production among the central causes of the economical welfare and competitiveness. The information is considered a production factor capable to determine the economic increase. The globalisation and new technologies create opportunities for economic increase. It results the amelioration of the products quality, costs reduction, adaptation at the costumer's demands, and the conception of new products. These are the foundations on which innovation was included in The Declaration from Vienna for the forests protection and in the forests strategy and in the European strategy for research (EU 6th Framework Program for Research).

There are different models for innovation study, classified in two categories, linear models and systemic models. The linear models are based on the presumption of the linear remittance of the information from the research-development structure, to the industrial corporations and next to the market, or, in the rural medium, from the agricultural research stations and universities to the farmers. The systemic models reckon with the complexity of the intra-firm and inter-firms relations. The fundamental research on innovation developed more in the 90s, marking an evolution from the linear models to the systemic ones. Concerning the entrepreneurship, in spite of the recently political interest, exists some researches on the forest sector, and the analysing theoretical frame is not fully established (Rametsteiner, 2004). Recent studies made by regional centre of the European Forest Institute from Vienna (INNOFORCE, on line) shows that the economic agents do not emphasize their own entrepreneur capacities. The emphasis is on other external factors, like cooperation within the business medium, available information and available funds.