



COST Action E 51

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

**CROATIA COUNTRY REPORTS
PHASE I**

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O. Abstract

The primary goal of the revised Lisbon Strategy is to ensure more rapid growth and higher employment rate, which, expressed numerically, denotes a 3%-rise of the gross domestic product (GDP) and the opening of six million new working posts by the year 2010. The goal sets new priority areas of development that focus on knowledge and innovations, the creation of a stimulating climate for investments, and sustainable development that respects the environment. The "triangle of knowledge" (research, education and innovation) represents the major factor in the European effort geared towards the achievement of Lisbon objectives.

In order to meet the set objectives the Republic of Croatia must pass relevant laws and coordinate its legislature with the European legislature in a short period. Forestry, as one of the sectors with currently little influence on the total domestic product in the country (the GDP of forestry and timber processing is 2.5%), is increasingly gaining in importance. Therefore, the unexplored potential of forestry rests in the field of innovations.

An insight into the legislature in the field of innovations and forestry shows that a good foundation has been set for the application of innovations in practice. It is obvious that Croatian forestry does not show much initiative in innovations in the sector, most possibly due to the fact that the majority of forests are state-owned. Maybe a growing number of private forest owners will see the chance in this field and make the necessary moves. To survive on the market, the sector of timber processing is becoming increasingly aware of the need for innovations in the production process. On the other hand, very few Croatian universities and scientific institutions possess a functioning technology transfer centre that employs well educated teams. These teams should help scientists to successfully protect and patent innovations. There are virtually no patents in forestry. Another problem to be treated within the existing European legislature concerns intellectual property.

A flexible, knowledge-based economy requires enhanced levels of innovation. The growth of the Croatian economy and the ability to benefit from closer integration within the Single European Market depends strongly on the successful transformation of research results and knowledge into commercially exploitable innovations. Innovation is a driving force for a new economy and a key factor of a country's ability to enter international markets and technology competition. Competition rules and Intellectual Property Rights (IPR) play a fundamental role in these new economic processes. Legislation on intellectual property rights (IPRs) is in place in all the Southern European countries. However, the enforcement of IPR legislation is far optimal although, in this regard, Croatia is approaching international norms.

Adopting the trends in the developed world, forestry sector has one of the highest priorities in diminishing the effects of glasshouse gases, due to growing utilisation of biomass as energy source, which is a result of management, but also utilisation of volume of wood from the forests through primary processing. In National Forestry Policy and Strategy for Croatia, the overall forest policy aim is: Through sustainable management, use and comprehensive protection of forest resources and biodiversity increase the contribution to the national economy, applying research results, while respecting international trends and local community rights. The Renewable Energy Strategy should fully observe the principles of sustainable development, and offer guidelines and directions for long-term environmental management, while fully observing the economic, social and cultural development.

The work done in COST Action E51 will help us to find out the basic conditions for the harmonization of economic, technical, scientific, educational, organizational and policy measures for fulfilling the international commitments of forest sector in Croatia.

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1 Introduction

1.1 Background and objective

Macroeconomic indicators in Croatia, for the year 2006 are a mixture of favourable and less favourable trends. Among positive indicators are certainly the overall GDP growth rate of 4.8 percent (up from 4.3 percent in 2005), as well as the indicators which contributed to GDP growth, like construction works (+9.3 percent) and industrial production (+4.5 percent), coupled with fiscal deficit reduction to 3 percent of GDP. Less favourable trends, i.e. negative indicators, above all refer to the growing merchandise trade gap and the related current account deficit, which reached 7.6 percent of GDP. External debt continued to grow, albeit at a slower pace, reaching almost 85 percent of GDP at end-2006. As estimates for 2007 are somewhat more cautious, the GDP growth rate is estimated at some 4.6 percent of GDP. Caution is mostly triggered by expectations regarding foreign trade developments, effects of a restrictive monetary policy, as well as the fact that 2007 is an election year, which will certainly affect successful implementation of structural reforms. Unemployment registered is about 260,000 at end-May 2007, what is 18% on the state level.

Forests in Croatia have economic, environmental and social functions and exert a major impact on the quality of life. Croatia is endowed with a great diversity of habitats (The Adriatic Sea, sub-mountainous regions and Panonian plain) and over 60 various forest communities are recognised. Our forests are acclaimed internationally for their natural composition on 95% of the forest areas and also for their great diversity of plant and animal life, resulting from more than 150 years of forestry tradition. Forests in the Republic of Croatia occupy 2.5 million hectares or approximately 43.5% of total mainland area. Of the total area, the state owns 2,024,474 ha (81%) of forests and forest land, while 461,137 ha (19%) is privately owned. "Hrvatske šume", Ltd, Zagreb is responsible for the management with state forests (1,991,537 ha), while some smaller areas (32,937 ha) are managed by other legal entities. In the year 2006, the contribution of forest industry sector in GDP was 1.4%, with the furniture industry accounting for 0.5%, pulp and paper 0.4% and wood and wood products 0.5%. It has been estimated that the contribution of forests in GDP is additional 1% (source of data: Statistical yearbook of the Republic of Croatia 2006).

For the COST E51 country report, sector analysis was made by the following authors:

Mr. Stjepan Posavec, Ph. D. (Abstract, Introduction and Conclusion, Forest policy, Innovation policy), Mario Šporčić, Mr. Sc. (Rural development policy), Andreja Pirc, B. Sc. (Forest based industry policy, Regional development policy) from Faculty of Forestry, University of Zagreb. The chapter's Sustainable development policy and Renewable energy policy were made by Mr. Tomislav Starčić from Croatian Advisory Service.

The following documents regarding innovation in forestry have been drawn on: National Forestry Policy and Strategy, Operational Program for the Development of the Wood Processing Industry, Science & Technology Policy of the Republic of Croatia 2006-2010, SAPARD programme – Agriculture and Rural Development Plan 2006, Strategy of Capacity Building for Regional Development, Strategy and National Environmental Action Plan, Energy Sector Development Strategy of the Republic of Croatia. The authors did not encounter any major difficulties during data collection and processing. The problems occurred during search for the chapters within the documents relevant to forestry and wood industry. The main document of forest policy in the country (National Forestry Policy and Strategy), for example, treats innovation in only a few lines. The Operational Program for the Development of the Wood Processing Industry focuses on the wood industry sector and the development of branding (Croatian Product) and a certificated final product in industry as a value added chain.

The Science & Technology Policy of the Republic of Croatia 2006-2010 is a theoretical platform for the development of innovation policy in the country.

Rural development programs are predominantly geared towards agriculture and less towards forestry. The SAPARD project addresses innovation as an overall goal, but the main task is support to agriculture. Over the latest census period (1991-2001) the Croatian villages underwent significant demographic changes. The rural population has decreased in both absolute and relative terms. The main goal of the Strategy of Capacity Building for Regional Development is to ease pressure on cities and distribute development through the whole country. Regional operative plans are developed for specific County levels inside Croatia.

All the documents refer to the national level and are representative for policy areas in the country.

In the Republic of Croatia, renewable sources of energy, not including hydroelectricity, provide less than 1% of all the required energy. Taking into account the economic moment and the great potential of renewable sources of energy, primarily of biomass (44% of the land area is covered with forests, a long tradition of the wood industry and vast areas of cultivable but uncultivated land), it is expected that by 2010 the minimum share of renewable sources in the structure of overall consumption of electrical energy will reach about 5.8%. The steadily declining reserves oil and gas, with increasing prices on world markets are putting small countries that are dependent on imports, such as Croatia, into a precarious situation. This can be solved by giving absolute priority to domestic sources. According to predictions, dependence of the Republic of Croatia on import of energy will grow from the current 55% of import to over 70% by 2030. This kind of energy future is alarming not only from the point of the balance of imports and exports, but also from the point of politics, due to growing dependence on import of energy and fuels. The use of biomass will reduce dependence on energy import and thus contribute to economic stability of the country, retention of the national income in the country and overall prosperity of the country and citizens alike.

Organized and systematic concern for renewable resources in Croatia will be based on National Energy Programs. The most important renewable resource programs are BIOEN (Biomass and Waste Energy Use Program), SUNEN (Solar Energy Use Program), ENWIND (Wind Energy Use Program), MAHE (Small Hydro Power Plant Construction Program), and GEOEN (Geothermal Energy Use Program). Those programs contain all the matters related to more frequent use of renewable energy resources.

The new agency for innovation services and technology transfer at the "Ruđer Bošković" Institute (*Ruđer – Inovacije d.o.o.*) began operating in 2007. Its purpose is to improve business-infrastructure environment for science and technology. The agency was established with the World Bank funds allocated to the Croatian technology development project (STP). The company's starting capital is four million euros. It is only the initial capital, while the company is expected to gain in value with the first ambitious results of commercialising high-quality know-how and innovations. The agency will deal with the following: protection and placement of know-how and experience, innovations, patents, technology transfer, the establishment of new spin-off companies, and linking home scientific and high-technology institutions (in the first place the Ruđer Bošković Institute) with other scientific, technological or economic subjects in the country and abroad. The principal idea is to produce material goods and technologically high-quality products that will be competitive on the world market.

This agency is expected to stimulate the development and share of innovations on the Croatian market, and help scientists in the formulation of new projects in the field of economy. With time, the forestry profession will hopefully apply the innovations in practice.

2 Innovation areas in forestry in the Croatia

Table 1: Innovation areas: Please list the max 6-8 most important innovation areas for your country

| Type \ Area | Territory based services | Value added chain |
|----------------------------------|--|--|
| Product | eco-track, non-wood products, biking, hiking, forest education, forest cottages for tourists, traditional products | wood chips, biomass, biomass heating plants, development of ecological products and designs; innovative design |
| Process | forest owners associations, local forest owners cooperation, marketing mix, | Wood clusters, technological development, |
| Marketing method | certification (FSC), territorial marketing, | Forest products promotion to the customers, labelling, quality control, image |
| Organisational model | Cross-sectoral cooperation, establishing public relations department | Horizontal and vertical co-operation, benchmarking |
| Institutional innovations | Advisory assistance | Financial support |

Table 2: Documents for Task 1: Please list the relevant documents

| |
|---|
| <p>Forest Policy (Regional or National Forest Programme): Document: National Forestry Policy and Strategy Publication Date: July 17th 2003 Website: www.mps.hr Supplementary documents: n.a.</p> |
| <p>Forest Based Sector Policy (Sector Policy Strategy), if any: Document: Operational Program for the Development of the Wood Processing Industry Publication Date: August 4th, 2004 Website: www.mps.hr Supplementary documents: n.a.</p> |
| <p>Innovation Policy (Regional or National Reform Programme): Document: Science&Technology Policy of the Republic of Croatia 2006-2010 Publication Date: May 5, 2006 Website: www.hatz.hr Supplementary documents: n.a.</p> |
| <p>Rural Development Policy (Reg. or Nat. Rural Dev. Programme, Forestry Part): Document: SAPARD programme - Agriculture and Rural Development Plan 2006 Publication Date: June 30, 2005 Website: www.mps.hr Supplementary documents: n.a.</p> |
| <p>Regional Development Policy (Regional or National Regional Dev. Programme): Document: Strategy of Capacity Building for Regional Development Publication Date: n.a. Website: www.mmtpr.hr Supplementary documents: n.a.</p> |
| <p>Sustainable Development Policy (Regional or National Sust. Dev. Strategy): Document: Strategy and National Environmental Action Plan Publication Date: January 25, 2002 Website: www.mzopu.hr Supplementary documents: Mediterranean Strategy for Sustainable Development" (MSSD)</p> |
| <p>Renewable Energy Policy (Regional or National (renewable) Energy Strategy): Document: Energy Sector Development Strategy of the Republic of Croatia Publication Date: 2002 Website: http://www.ieabioenergy-task38.org/countryreports/croatia/energy_stragegy_croatia.pdf Supplementary documents: n.a.</p> |

3 Forest Policy – National Forest Programme

In the implementation of the measures defined in the document through strategic activities by specific areas, priorities will be allocated in accordance with priority classes to activities related to inventorying the condition in the areas directly or indirectly linked to forestry and the forestry sector. These activities are important for obtaining the realistic status and defining the significance of future steps and measures. Likewise, the conservation of forest resources through the application of ecologically, economically and ergonomically acceptable technologies and through utilisation of other, non-timber products, has been defined as being of utmost priority. In accordance to strategic orientation in this document, it will have a growing role in the sector.

Forests and other activities concerning forests and forest lands are regulated by the Forest Law (Official Gazette no. 52/90), approved in 1990 and amended in 1993, 1997 and 2002. The law defines general objectives and organisation of public intervention in the sector and establishes financial mechanisms including (i) the obligation of all forest owners to invest 15% to 20% of the income from wood sales into simple biological reproduction and additional 3% into extended biological reproduction, (ii) the obligation of all commercial and industrial companies in Croatia to pay 0.07% tax on their turnover, which is transferred to Hrvatske šume, Ltd Zagreb, to finance investments in forest improvement with the aim of protecting forest amenities, restoring degraded forests in the karst areas, restoring degraded forests and conducting forest research.

3.1 General information - based on Part A of document analysis

Table 3: Part A - General document information

| | |
|--|---|
| Name: | National Forestry Policy and Strategy |
| Adoption: Please mark by whom and at which level the document is adopted | <input type="checkbox"/> Parliament <input checked="" 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: July 17 th 2003 |
| Validity period: | Since 2003. End of validity isn't mentioned. |
| Revision: | Update of the document isn't mentioned. |
| Monitoring/ Evaluation: | An evaluation hasn't started yet but it will be monitored by a Policy Review Group to be appointed by the Minister of Agriculture and Forestry. |
| Related documents: | Forest management programme for 1996-2005, the Forest Law (Official Gazette no. 52/90) approved in 1990 and amended in 1993, 1997 and 2002. |
| Geographical scope: | <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____ |
| Budget: | The budget for whole document period is not defined but for Priority I activities is estimated as being between \$3.5 to 4 million per annum for the four year period 2003 to 2006. |
| General description of contents as written in document | |
| Objective of the document | Trough sustainable management, use and comprehensive protection of forest resources and biodiversity increase the contribution to the national economy, applying research results, while respecting international trends and local community rights. |
| Priorities | 1. Conservation of forest resources through the application of ecologically, economically and ergonomically acceptable technologies 2. Diminishing the effects of glasshouse gases, due to growing utilisation of biomass as energy source |
| Structure | 1. Management of Forest Ecosystems 2. Forest Administration and Legislation 3. Non Timber Products – Tourism, Hunting and Other Forest and Forest Lands Products 4. Timber Industry 5. Environment and Physical Planning 6. Education Research and International Co-operation 7. Public Relations and Promotion |

| | |
|-----------------------------------|---|
| Measure Areas | <ol style="list-style-type: none"> 1. To support certification of forest management and timber products and elaboration of a National Standard 2. To develop financial incentives to support the implementation of environmentally friendly technologies (i.e. bio-oils, cable railways) 3. The establishment of criteria for multipurpose utilisation of space – forests and forest soil 4. Development of financing models for mine clearance in forests and forest land 5. Undertake an inventory of unused biomass as potential energy source 6. Simplify management plans for private forests and secure funds for their implementation 7. Draft and implement regulations to allow for the implementation of main findings of the Restructuring Study 8. Supplement the legal regulations with instruments needed for the implementation of the strategy 9. Establish an expert group(s), which will through a participatory approach, harmonise all laws pertaining to or regulating common areas of interest. 10. Establishment of Chamber of Forestry for implementation of licensing 11. Identify, evaluate and define the management principles for all non timber forest and forest land products 12. Undertake and maintain a national inventory of the hunting resource 13. Undertake a study to identify and evaluate the tourism potential of forest ecosystems 14. Prepare a specific timber industry strategy 15. In collaboration with the timber industry, develop a range of measures to create an enabling environment for introduction of new technology and investments in final product manufacture. 16. Introduce regulations to ensure involvement of forestry professionals in the elaboration of physical plans 17. Elaborate criteria for designation and management of protected areas according to international standards 18. Adapt research projects to the needs of the sector and on the basis of 3-5 year planning periods |
| 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: <u>Operational Program for the Development of the Wood Processing Industry; adoption date August 4th 2004</u> <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: | Acquire knowledge about the existing European and national policies, strategies and programmes, as well as their implementation mechanisms in the fields of innovations, rural development, regional development and policy of sustainable management. |

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

Table 4: Part B - Overall Innovation Orientation

| | | |
|---|--|--|
| Overall innovation orientation (use word search function). | 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 | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the forest sector ' <u>innovation frontier</u> ' – innovation areas identified in Chapter 3 - in the document | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Biomass, forest education, promotion |
| | Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Terms used: competitiveness |
| | Further comments on overall innovation orientation of the document: | |
| Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer) | <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: | |
| Degree of specification: Please mark how general | <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</i> | |

| | |
|--|---|
| <p>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> | <p><i>document</i>)</p> <p><input type="checkbox"/> rather general (<i>innovation is addressed in overall goals, needs are identified but no specification of measures</i>)</p> <p><input checked="" type="checkbox"/> rather specific (<i>innovation is addressed in concrete goals, measures are formulated</i>)</p> <p><input type="checkbox"/> very specific (<i>quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist</i>)</p> <p>Comments: Innovation is addressed through goals and measures</p> |
| <p>Understanding of innovation policy</p> <p>Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1</p> | <p><input type="checkbox"/> Predominately traditional science and technology policy</p> <p><input type="checkbox"/> Traditional S&T policy with systemic elements</p> <p><input checked="" type="checkbox"/> Systemic innovation policy with S&T policy elements</p> <p><input type="checkbox"/> Predominantly systemic innovation policy</p> <p>Comments: The role of policy is to solve problems that occur within innovation systems, e.g. by supporting the creation and development of institutions and organisations, supporting network development, facilitate transition and avoid lock-in (Edquist and Johnson 1997).</p> |
| <p>Goals and objectives:</p> <ol style="list-style-type: none"> 1. To preserve and promote habitat stability, forest health and productive capacity of stands 2. To implement 4E (ecological, ergonomic, economic, energy) favourable technologies in forestry 3. To improve management system of karst region 4. To include mined forest areas into regular management 5. To utilise biomass for energy 6. Efficiency and rationalization of forestry administration as a basis for sustainable forest management and creation of required human resource level within the sector 7. Stimulate enlargement of private forest plots and associations of private forest owners 8. Legal framework that will facilitate efficient implementation of the strategy 9. Harmonisation of the laws 10. Licensing of contractors 11. To adapt and harmonise legal regulations with the requirements for the incorporation of forest ecosystem into the development of tourism 12. To create an appropriate legal framework for the development of non timber forest and forest land products 13. To identify and evaluate the existing tourism potential of forest ecosystems 14. To create and promote specific tourism products of forest ecosystems 15. To contribute to rural development 16. To develop the sector of hunting on the principles of balanced development 17. To enhance the development of hunting tourism as part of the tourism offer 18. To utilise other forest and forest land products in accordance with the principles of sustainable forest management 19. Address institutional needs 20. Quality recognisable on the market 21. High level of production of final products 22. High level of raw material utilisation 23. Compliance with the international standards 24. To join the primary capital market 25. Well organised timber assortment market 25. Forest and water management harmonisation 26. Inter-sectoral co-ordination in protected areas management 27. Forest fire protection 28. To involve forestry professionals in the elaboration of physical plans 29. Improvement in co-operation on scientific-research projects 30. Improve international co-operation between schools, universities and forestry institutions 31. Implementation of international commitments, conventions and resolutions 32. Project management system 33. Improve technical and human resources capacity of scientific institutions 34. Curricula development 35. Public relations and promotion | |
| <p>Issues, problems and related topics: Major concern is overlapping of responsibilities of the Ministry of Agriculture and Forestry, Ministry of Economy, Ministry of Environment Protection and Physical Planning and "Hrvatske šume", limited company. The influence of forestry administration on physical planning is weak. There is a lack of co-ordination with other administrations on national and local levels, which can result in conflicts.</p> | |
| <p>Innovation areas: The most important innovation areas are: forestry certification, activities include silviculture, forest planning, ecosystems, forest husbandry, nursery and plantations, protection of forest ecosystems, biomass and water monitoring</p> | |
| <p>General comment: Research overlapping of responsibilities</p> | |

Table 5: Part B - Innovation Support Measures

| | | |
|--|--|--|
| Innovation support measures <i>Consult classification in chapter 2.2.2</i> | Research and Development | Development of new products, processes, marketing methods, organisational models by enterprises |
| | Diffusion of innovation | Diffusion of products (n. a. specific list of products or innovation) |
| | Strengthening the knowledge base | Addressing shortages of scientists and engineers in particular fields |
| | Strengthening interaction | Promoting vertical co-operation – along the forestry wood chain, Promoting public – private partnerships, Promoting cooperation across sectors, Promoting university/research institutions – enterprise cooperation, Promoting interaction with users (customers and consumers). |
| | Demand creation | n.a. |
| | Improving frame conditions | Improving access to financing, e.g. by providing guarantees, Adaptation of standards and norms, e.g. in the construction sector |
| | Comments: Document does not contains detailed innovation support measures | |
| Priorities | | Document promotes different kind of promotions through strengthening interaction between sectors. |
| Assessment of overall relevance | | Other support measures could contain innovations |
| Promotion of innovation | | Document does not includes and promote innovation as a part of forestry and wood based industry. |
| General comment: | | Investigate the relationship between innovativeness and creativity, as well as the meaning and definition of innovativeness in Croatian forestry. Analyze the problem of insufficient innovativeness and competitiveness of state and private forest owners in Croatia. |

Table 9 “Part B - Cross-sectoral coordination mechanisms” below helps to collect information on cross-sectoral co-ordination mechanisms, see guidelines chapter 2.3.

Table 6: Part B - Cross-sectoral coordination

| | |
|---|--|
| Policy formulation | |
| Co-ordination with other processes and documents | Forests and other activities concerning forests and forest lands are regulated by the Forest Law (Official Gazette no. 52/90), approved in 1990 and amended in 1993, 1997 and 2002. Other legal acts which have direct impact on the sector include: Law on Forest Seeds and Planting Materials; Law on Environmental Protection; Law on Nature Protection; Law on Plant Protection; Law on Fire Protection; Law on Hunting; Law on Water; Law on Financing Water Economy; Law on Public Roads; Law on Protection Against Natural Hazards. |
| Administrative Co-ordination: | <input type="checkbox"/> between different sections/departments within the same ministry; specify: _____ <input type="checkbox"/> between different ministries, specify: _____ <input checked="" type="checkbox"/> between ministries and other public organizations / agencies, specify: _____ <u>Comments:</u> Main administrative actor is Ministry of Agriculture, Forestry and Water Mngm |
| Stakeholder involvement | <input checked="" type="checkbox"/> Forestry: name most important organisations: Croatian Forest enterprise. <input checked="" type="checkbox"/> Forest-based industries: name most important organisations: Croatian Forestry Association <input checked="" type="checkbox"/> Agriculture: name most important organisations : <u>Ministry of Agric.</u> |

| | |
|--|---|
| | <p>For.</p> <p><input checked="" type="checkbox"/> Tourism: name most important organisations: <u>Ministry of Tourism</u></p> <p><input type="checkbox"/> Energy: name most important organisations: _____</p> <p><input checked="" type="checkbox"/> Environment: name most important organisations: <u>Ministry of Env.</u></p> <p><input type="checkbox"/> Other sector: _____: name most important organisations: _____</p> <p><input checked="" type="checkbox"/> Other sector: _____: name most important organisations: _____</p> <p><u>Comments:</u> State Inspection Authority, State Institute for Standardisation, Croatian Land Mine Clearance Centre, Croatian Hunting Union, Croatian Forestry Association, Croatian Tourist Association, Croatian Fire Association, Public Institutions of Protected Areas, Local Government, Ministry of Small and Medium-Size Trading Companies, Non-Government Organisations, Forestry Associations (Croatian Forestry Association, Academy for Forestry Science), Forestry Faculty, Forest Research Institute, Forestry Schools, State Administration Bodies, Croatian Travel Agency Association, Government of the Republic of Croatia, Scientific Research Institutions, Institute for Adriatic Cultures and Land Reclamation, Employment Bureau ,County Economy Offices, Croatian Chamber of Commerce</p> |
| Coordination mechanisms: | <p><input type="checkbox"/> Formal (central) coordination body; name: _____</p> <p><input checked="" type="checkbox"/> Formal coordination process</p> <p><input type="checkbox"/> Inter-sectoral working groups</p> <p><input type="checkbox"/> Inter-sectoral advisory body</p> <p><input type="checkbox"/> Formal mandatory consultation process</p> <p><input type="checkbox"/> Formal voluntary consultation process</p> <p><input type="checkbox"/> Informal consultations (please describe _____)</p> <p><input type="checkbox"/> Others: _____</p> |
| Policy Implementation | |
| Responsible actors and their roles: | Main responsible actors are Ministry of Agriculture, Forestry and Water Mngm., Ministry of Economy, Ministry of Environmental Protection and Physical Planning |
| Level of delegation | <p><input type="checkbox"/> Decentralized, e.g.</p> <p><input checked="" type="checkbox"/> Central, e.g. ministry, public agency</p> <p><input type="checkbox"/> Outsourced to private actors</p> <p><input type="checkbox"/> Local, e.g. by municipalities</p> <p><input type="checkbox"/> Regional, e.g. by regional public actors</p> <p><input type="checkbox"/> Others: _____</p> |
| General comment | Stimulate the development of forestry and wood processing. |

4 Forest-Based Industries Policy

The Croatian wood processing industry has many comparative advantages, which are currently used to improve and advance the sector with particular emphasis on local natural resources. Moreover, it has a long tradition in wood processing and promoting products in certain markets, a high level of privatisation and quality human resources. In order to utilise the above potential and face the key challenges it is essential that future strategic developments and investments are well directed. The Operational Program for the Development of the Wood Processing Industry emphasises the following imperatives: science proposes developmental guidelines, while political economics is initiated by the Government of the Republic of Croatia. Next, finished wood products should be defined as the national strategy. Reindustrialisation of the wood processing industry should be a priority in the industrial politics of Croatia and should create the kind of products which would increase the share of the wood processing industry in the GDP structure. It should also stimulate the Croatian wood industry, but restructuring the sector is not possible without increasing investments (domestic and foreign). The funds required from the Croatian state budget to implement the proposed measures and activities are expected to be approximately 27.216.000 EUR. The Operational Program links forestry and the wood processing industry through mutual cooperation.

4.1 General information - based on Part A of document analysis

Table 7: Part A - General document information

| | |
|--|--|
| Name: | Operational Program for the Development of the Wood Processing Industry |
| Adoption: Please mark by whom and at which level the document is adopted | <input type="checkbox"/> Parliament <input checked="" type="checkbox"/> Government <input checked="" type="checkbox"/> Ministry: Ministry of Agriculture, Forestry and Water Management <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: 4th August 2004. |
| Validity period: | 2006 - 2010 |
| Revision: | Revision not planned |
| Monitoring/ Evaluation: | n. a. |
| Related documents: | The Strategy for Developing the Wood and Paper Processing Industry; A Study of Restructuring the Wood Sector; Clusters in the Croatian Wood Processing Industry; Design Implementation in the Furniture Industry |
| Geographical scope: | <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____ |
| Budget: | 201.400.000 kuna = 27.216.216 EUR |
| General description of contents as written in document | |
| Objective of the document | To multiply the value of raw wood materials by manufacturing products with a high level of finish and characterised by quality, design and uniqueness; to become economically successful and profitable; to become recognisable above all else by high quality levels; to ensure ecological acceptability |
| Priorities | <ol style="list-style-type: none"> 1. Improving existing and developing new products, procedures and services 2. Rational use of raw wood materials 3. Creation of brands within the wood sector 4. Developing technologies and technological processes |

| | |
|-----------------------------------|---|
| Structure | <ol style="list-style-type: none"> 1. Introductory section 2. Document background 3. Analysis of the state of the Croatian wood processing industry 4. Vision and mission 5. Goals 6. Implementation measures 7. Security monetary resources for the implementation of the Operational Program 8. Project recommendations 9. Expected result from implementing the Operational Program <p>Conclusion</p> |
| Measure Areas | Security monetary resources; market analysis and marketing; studies on technical feasibility; utilising renewable energy resources, introduction of ICT infrastructure |
| Follow-up / Implementation | |
| Follow-up measures: | <input checked="" type="checkbox"/> No follow-up activities so far <input type="checkbox"/> New or adapted funding programme(s) /budget line; name: <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: | Operational Program for the Development of the Wood Processing Industry presents an excellent base for developing new products, brands, organizational skills in wood industry in the future. |

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

Table 8: Part B - Overall Innovation Orientation

| | | |
|---|---|---|
| Overall innovation orientation (use word search function). | 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 | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the forest sector ' <u>innovation frontier</u> ' – innovation areas identified in Chapter 3 - in the document | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Terms used: entrepreneurship, competitiveness |
| | Further comments on overall innovation orientation of the document: | |
| Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer) | <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: | |
| 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 checked="" 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: vision, measures and goals are defined | |

| | |
|---|--|
| <p>Understanding of innovation policy</p> <p>Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1</p> | <p> <input type="checkbox"/> Predominately traditional science and technology policy <input type="checkbox"/> Traditional S&T policy with systemic elements <input checked="" type="checkbox"/> Systemic innovation policy with S&T policy elements <input type="checkbox"/> Predominantly systemic innovation policy </p> <p>Comments: To carry out restructuring, directed towards the development of manufacturing high quality products containing a high level of processing supported by sophisticated technology. Understanding of innovation as a complex process, taking place in an environment of interacting actors and institutions (innovation system); having multiple sources (apart from research activities); and running through multiple feedback loops between the different stages.</p> |
| <p>Goals and objectives: Changing the existing structure to the benefit of final production and exporting finished products; increasing competitiveness of the finished product the domestic and export markets; increasing employment and maintaining population members in rural areas; encouraging the development and production on the national wood processing industry, while not bringing into question its transparency; creating brands within the wood sector</p> | |
| <p>Issues, problems and related topics: Absence of data quality and reliable basis for marketing decision; a negative perception of the manufacturing industry by consumers; development of the "information society"</p> | |
| <p>Innovation areas: Development of quality so as to serve marketing and the markets; development of ecological products and designs; innovative design</p> | |
| <p>General comment: List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used</p> | |

Table 9: Part B - Innovation Support Measures

| | | |
|--|---|--|
| <p>Innovation support measures <i>Consult classification in chapter 2.2.2</i></p> | <p>Research and Development</p> | Proposed measures: Introduction of new technologies and modernisation of current technologies; developing performance for renovation and substitution of existing constructions; promoting Croatian products by participating at expos and exhibitions |
| | <p>Diffusion of innovation</p> | List support measures: Subventions; tax exemptions, tax debit and contribution waivers; loans under favourable conditions; a Croatian Agency for Small Businesses guarantee |
| | <p>Strengthening the knowledge base</p> | Promoting mobility between science and practice. |
| | <p>Strengthening interaction</p> | Promoting co-operation across sector, promoting research institutions – enterprise cooperation and promotion interaction with users (customers and consumers) |
| | <p>Demand creation</p> | The Operational Program was created because of the lack of direction in products and attempts to create increasingly short-term results (e.g. export of sawn timber) and because of increasing imports of wood products and low-priced furniture of an inappropriate quality. Support for lead users, or public agencies acting as lead user. |
| | <p>Improving frame conditions</p> | Improving access to financing, Adaptation of standards and norms. |
| | <p>Comments: Proposed measures mentioned above refer to the Operational Programme not to innovations in the Operational Programme.</p> | |
| <p>Priorities</p> | | Strengthening the knowledge base in wood industry and forest based sector about necessity of innovations. |
| <p>Assessment of overall relevance</p> | | The strategy haven't concrete strategy measures for innovation |
| <p>Promotion of innovation</p> | | The strategy haven't concrete promotion measures for innovation |
| <p>General comment:</p> | | Create demand for new forest products. |

Table 9 "Part B - Cross-sectoral coordination mechanisms" below helps to collect information on cross-sectoral co-ordination mechanisms see guidelines chapter 2.3.

Table 10: Part B - Cross-sectoral coordination

| | |
|---|--|
| Policy formulation | |
| Co-ordination with other processes and documents | the Strategy for Developing the Wood and Paper Processing Industry (Official Gazette, No 114/2004) |
| Administrative Co-ordination: | <input type="checkbox"/> between different sections/departments within the same ministry; specify: ____ <input type="checkbox"/> between different ministries, specify: ____ <input checked="" type="checkbox"/> between ministries and other public organizations/agencies, specify: Croatian Chamber of Econ., Min. of Agricult., Forestry, Water Mngm., Croatian Forest enterprise, Croatian Design Center, Min. of For. Aff. Eur.Integr., Min.of Env.Prot.Phys.Plan.Constr., the Wood Processing Industry Association, Faculty of Forestry University of Zagreb <u>Comments:</u> |
| Stakeholder involvement | <input checked="" type="checkbox"/> Forestry: name most important organisations: <u>Croatian Forest enterprise</u> <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 type="checkbox"/> Environment: name most important organisations: ____ <input type="checkbox"/> Other sector: ____: name most important organisations: ____ <input type="checkbox"/> Other sector: ____: name most important organisations: ____ <u>Comments:</u> participation in programmes |
| Coordination mechanisms: | <input checked="" type="checkbox"/> Formal (central) coordination body; name: Min. of Agricult., Forestry, Water Mngment <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 type="checkbox"/> Informal consultations (please describe ____) <input type="checkbox"/> Others: ____ |
| Policy Implementation | |
| Responsible actors and their roles: | The main actor is Ministry of Agriculture, Forestry and Water Management |
| Level of delegation | <input checked="" type="checkbox"/> Decentralized, e.g. <input 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 | List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used |

5 Innovation Policy – National Reform Programme

The main goals of Science and Technology policy are increased investments into science, research and development based on the principle of excellence. Further goals include their greater impact, the realignment of the science sector, fostering scientific partnerships and the support system for outstanding young researchers, providing support and strong connection of science and industry, establishing a motivating framework for their joint development, supporting all measures leading to the development of technology and innovations, with a more intensive participation of Croatian scientists in the European Union Framework Programmes. It is especially significant that the Science and Technology Policy of the Government of the Republic of Croatia received support from the World Bank through a loan in the amount of €31 million, which is currently under implementation, with participation of the Republic of Croatia with an additional €5.7 million.

5.1 General information - based on Part A of document analysis

Table 11: Part A - General document information

| | |
|--|---|
| Name: | Science & Technology Policy of the Republic of Croatia 2006-2010 |
| Adoption: Please mark by whom and at which level the document is adopted | <input type="checkbox"/> Parliament <input checked="" type="checkbox"/> Government <input checked="" type="checkbox"/> Ministry: Min. of Science, Education and Sports <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: May 5, 2006 |
| Validity period: | Year 2006-2010 |
| Revision: | No planned updates |
| Monitoring/ Evaluation: | Program monitored by Min. of Science, Education and Sports and Ministry of Economy labour and Entrepreneurship. Not evaluated yet. Foreseen in future through the Action Plan which will be developed on the basis of this policy, will strive towards the quality and efficiency of the research sector. |
| Related documents: | Lisbon Strategy, Action Plan (EC SEC 2005, 192 working document), FP7; The basis of this document is the national strategy for development of science and technology, "Croatia in the 21st Century - Science". |
| Geographical scope: | <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____ |
| Budget: | The National Foundation for Science, Higher Education and Technological Development (NFS), with its current funds of €15 million and a yearly income of €1.4 million will support excellence in research. |
| General description of contents as written in document | |
| Objective of the document | Our <i>overall aim</i> is to stimulate scientific excellence and enable the transfer of knowledge and results of scientific discoveries to industry and business in order to increase competitiveness and generate sustainable growth and productivity. |
| Priorities | <ul style="list-style-type: none"> • Increase and improvement of investments into knowledge, research and development • Stimulation of innovation, expanding the use of information and communication technologies, and sustainable use of resources • Knowledge-based society must strive towards realization of a healthy economy |

| | |
|-----------------------------------|---|
| Structure | <p>I. PREFACE</p> <ol style="list-style-type: none"> 1. Overview of the Science & Technology sector in Croatia 2. The challenge of building a knowledge-based society 3. Key proposals addressed in the S&T Policy <p>II. SCIENCE AND HIGHER EDUCATION</p> <ol style="list-style-type: none"> 1. Main objectives 2. Implementation instruments and budget allocation 3. Recognizing and developing priority areas <p>III. TECHNOLOGY AND INNOVATION</p> <ol style="list-style-type: none"> 1. Overall aim 2. Objectives for promoting business innovation and technology development 3. How objectives are met (Policy matrix) 4. Implementation instruments, main programme areas and budget allocation |
| Measure Areas | <ul style="list-style-type: none"> • Increase funding for excellent science and technology projects in order to meet the “3% of GDP for research investment” as laid out in the Lisbon Strategy set by the European Commission with goals to promote economic growth and job creation • Restructure publicly-funded research institutes and R&D centers in order to reorient their research towards national priority areas and industry needs • Encourage research partnerships and strengthen support schemes for quality young researchers - in order to facilitate mobility, interdisciplinary and cross-sector cooperation, and build a more flexible research and education system • Invest in science research infrastructure and knowledge transfer institutions in order to build research capacity and provide access to business solutions • Introduce measures to promote commercialization of academic research in order to encourage universities and research institutions to work more closely and effectively with business • Introduce measures to promote technological development and innovation in order to attract people and capital into innovative business ventures • Administer stimulating and business-friendly legislation including appropriate intellectual property laws and tax incentives for investment into priority area R&D, in order to build a system that encourages innovation |
| Follow-up / Implementation | |
| Follow-up measures: | <p><input type="checkbox"/> No follow-up activities so far</p> <p><input checked="" type="checkbox"/> New or adapted funding programme(s) /budget line; name: The Science and Technology Policy of the Government of the Republic of Croatia received support from the World Bank through a loan in the amount of €31 million, which is currently under implementation, with participation of the Republic of Croatia with an additional €5.7 million.</p> <p><input type="checkbox"/> New or adapted regulations/laws; name:</p> <p><input type="checkbox"/> New or adapted informational campaigns/instruments; name:</p> <p><input type="checkbox"/> New or restructured institutions/organisations; name:</p> <p><input type="checkbox"/> Implementation in forest policy:</p> |
| General comment: | There is no Innovation Policy for Forest Sector |

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

Table 12: Part B - Overall Innovation Orientation

| | | |
|--|--|--|
| Overall innovation orientation (use word search function). | 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 | <input type="checkbox"/> never <input type="checkbox"/> sometimes <input checked="" type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the forest sector ‘ <u>innovation frontier</u> ’ – innovation areas identified in Chapter 3 - in the document | <input checked="" type="checkbox"/> never <input type="checkbox"/> sometimes <input type="checkbox"/> frequently |

| | | |
|--|---|--|
| | Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness | <input type="checkbox"/> never <input type="checkbox"/> sometimes <input checked="" type="checkbox"/> frequently Terms used: SMES, R&D, Clusters, Technology transfer |
| Further comments on overall innovation orientation of the document: The overall aim of the Government is to encourage science and industry cooperation, increase productivity and competitiveness of the Croatian industry and enable innovation and technology solutions to flow into all sectors of the economy. | | |
| Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer) | <input type="checkbox"/> No relevance at all <input type="checkbox"/> Marginal issue <input type="checkbox"/> One issue among others <input checked="" type="checkbox"/> Important issue <input type="checkbox"/> Central issue Comments: | |
| 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 checked="" 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: Innovation is a strategic goal of national policy. | |
| 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 type="checkbox"/> Traditional S&T policy with systemic elements <input checked="" type="checkbox"/> Systemic innovation policy with S&T policy elements <input type="checkbox"/> Predominantly systemic innovation policy Comments: Understanding of innovation as a complex process, taking place in an environment of interacting actors and institutions (innovation system); having multiple sources (apart from research activities); and running through multiple feedback loops between the different stages. | |
| Goals and objectives: The Croatian Government recognizes that the efficacy and success of our innovation system will be highly determined by the quality of policy making, strategic competencies, and unanimity amongst various interest groups. Up until now, the Government has been the main investor in science and R&D, with the private sector contributing only around one third. One of the main objectives of the Government is to create conditions for increased investments of the private sector with the goal of reaching a 1:1 ratio of public vs. private sector investment by 2010. This can be achieved by a pro-active approach and strong delivery mechanisms for targeted policy measures. Objective 1: Promote creation and growth of knowledge-based enterprises Objective 2: Create technology infrastructure to support knowledge-based SMEs and technology-based start-ups Objective 3: Stimulate demand for R&D from business Objective 4: Manage intellectual property Objective 5: Diversify funding sources for R&D, attract private sector investments and create risk capital industry Objective 6: Promote public confidence in science and innovation awareness | | |
| Issues, problems and related topics: <ul style="list-style-type: none"> • Lack of experienced professionals/experts • Unattractive surroundings for investment (high regulatory barriers for entry) • Investing into R&D unrecognized as vital part of business process • Negative attitude towards cross-sector cooperation • Unconcerned and torpid target community | | |
| Innovation areas: <ol style="list-style-type: none"> 1. Competent human resources and continuous professional development 2. Strong scientific and research base at the universities and research institutions 3. Availability of appropriate technology and business infrastructure to support creation of knowledge-based enterprises | | |

4. Targeted support programmes which provide early-stage financing to knowledge based companies
5. A strong intellectual property regime to provide incentives for invention
6. Stimulative tax policy to spur investment into R&D
7. A positive business environment with low regulatory barriers for entrepreneurs and investors, which equals lower costs and a faster road to markets
8. Promotion of public confidence in science and technology as well as innovation awareness

General comment:

There is no common understanding and relevance of Innovation Policy in forestry.

Table 13: Part B - Innovation Support Measures

| | | |
|--|--|---|
| <p>Innovation support measures <i>Consult classification in chapter 2.2.2</i></p> | <p>Research and Development</p> | <p>Pilot projects and demonstration projects, commercialization of new products by enterprises.</p> <p>In 2001, the Government launched the <i>Croatian Programme for Innovative Technological Development (HITRA)</i>, targeting for the first time science and industry cooperation with the goal of boosting public-private partnerships. HITRA is targeted at initiating the national innovation system through permanent development of three strategic and long term goals: 1. Fostering science and industry cooperation 2. Revitalization of industrial R&D 3. Encouraging commercialization of research results</p> <p>HITRA provides a framework for direct cooperation between industry and entrepreneurs with higher education institutions and research institutes, and is implemented through two complimentary sub-programmes: TEST and RAZUM.</p> <ul style="list-style-type: none"> • <i>Technology-related research and development projects (TEST)</i> - which provides support to development of new technologies, in terms of products, processes or services, up to their commercialization stage • <i>Development of knowledge-based enterprises (RAZUM)</i> - which provides early stage financing knowledge and technology based start-ups |
| | <p>Diffusion of innovation</p> | <p>The <i>Business Competitiveness Upgrading Programme (KonCro)</i>, administered by BICRO (Business Innovation Centre of Croatia), assists SME's to become more competitive by increasing productivity, improving product quality, upgrading business organization by introducing ISO standards, helping in the patenting procedure, product design and environmental protection. A total of €1.5 million will be made available from the state budget, for disbursement to firms as grants. Each individual grant to a service-consuming firm must be matched by an equal contribution from a private sector firm.</p> |
| | <p>Strengthening the knowledge base</p> | <p>Much work is needed in raising public awareness on Intellectual Property Rights (IPR) issues and instilling the "entrepreneurial mentality". A CARDS 2003 programme, Intellectual Property Rights Infrastructure for the R&D Sector in Croatia, is in place with the specific tasks of training individuals in IP management, as well as setting up of three individual IP Centres that would provide full scale of services to research institutes/academia, with the goal of reaching self-sufficiency for the IP Centres.</p> |

| | | |
|--|--|---|
| | Strengthening interaction | <p>Programmes implementation has been entrusted to professional technology management corporations, Business Innovation Centre of Croatia, BICRO Ltd., and the Croatian Institute for Technology, HIT Ltd., to ensure quality and transparency in the decision-making process. HIT Ltd. was founded in March 2006, as an expression of the need to transform and amplify activities of the existing Institute for Technology Policy and Development. The mission of HIT is to create pre-conditions for accelerated application of new knowledge and technologies, by providing services, expertise and projects. HIT operates in the field of financial support to technology based and innovative entrepreneurs and coordinates cooperation with European-funded projects. HIT provides consulting services in the area of technology transfer and knowledge, and coordinates institutions in similar areas of work, with the aim of enforcing technological development on a national level. Furthermore, HIT provides expert advice in establishing <i>start up</i> and <i>spin out</i> companies, whereby the main criteria are innovation, development of new technologies and market logic and profitability of the new companies. HIT's tasks include building a <i>Business Intelligence</i> system and technology forecasting.</p> <p>Promoting cooperation across sectors.</p> |
| | Demand creation | <p>The <i>Research and Development Programme (IRCro)</i>, administered by BICRO, is intended to encourage and stimulate demand for services of public research institutions, as well as to encourage SMEs to invest in R&D activities. The Programme envisages utilization of extensive facilities available within the universities and research institutions in the country. Projects under the IRCro Programme involve cooperation between an industrial firm and research/academic institutions and are jointly funded by the IRCro programme and the industrial company involving a 50/50 matching grant scheme. Thus, the private sector participates 50% in funding of R&D activities. A total of €1.5 million has been secured in the state budget up until the end of 2009 for this programme.</p> <p>Support for lead users, or public agencies acting as lead user</p> |
| | Improving frame conditions | <p>To facilitate creation of partnerships between universities and business, particularly in the area of natural sciences, there is a TEMPUS Joint European Project for <i>Stimulating Croatia's Entrepreneurial Activities and Technology Transfer in Education – CREATE</i> in place for support of creation of three Entrepreneurship and Technology Transfer Offices, one at each of the universities in Zagreb, Rijeka and Split. The project has commenced in 2006, and is expected to be completed within 36 months; a total of €500,000 has been secured for its implementation.</p> <p>Improving access to financing, e.g. by providing guarantees</p> |
| | Comments There is not any forest measures mentioned | |
| Priorities | Priority areas for innovation support within the documents are diffusion of innovation and demand creation. | |
| Assessment of overall relevance | <ul style="list-style-type: none"> • Build stimulative framework for business investment and enable introduction of EU norms and standards • Diversify funding sources (public, venture capital, corporate income tax) • Create demand for technology-based products/services • Introduce principle of cost-effectiveness • Bridge the gap between science and industry | |

| | |
|--------------------------------|---|
| Promotion of innovation | The Science & Technology Policy sets key strategic objectives and identifies policy measures and relevant policy actors that will need to work together towards creating a renewed, competitive and thriving technology sector and social segment capable of generating new jobs, producing high output and bringing economic certainty to this and future generations. |
| General comment: | Innovation support measures for forestry and forest based sector are not defined and classified. |

Table 9 "Part B - Cross-sectoral coordination mechanisms" below helps to collect information on cross-sectoral co-ordination mechanisms see guidelines chapter 2.3.

Table 14: Part B - Cross-sectoral coordination

| | |
|---|--|
| Policy formulation | |
| Co-ordination with other processes and documents | Complex Technology Projects (STIRP), Innovation Commercialization Programme, Technology Infrastructure Development Programme (TehCro), The Research and Development Programme (IRCro), The Business Competitiveness Upgrading Programme (KonCro), Venture Capital Programme (VenCro), Cluster Development Programme, National Strategy for Development of the Intellectual Property System |
| Administrative Co-ordination: | <input type="checkbox"/> between different sections/departments within the same ministry; specify: ____ <input type="checkbox"/> between different ministries, specify: ____ <input checked="" type="checkbox"/> between ministries and other public organizations / agencies, specify: Ministry of Economy, Labour and Entrepreneurship, Ministry of Science, Education and Sports <u>Comments:</u> strengthening stakeholders involvement |
| Stakeholder involvement | <input type="checkbox"/> Forestry: name most important organisations: ____ <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 type="checkbox"/> Environment: name most important organisations: ____ <input checked="" type="checkbox"/> Other sector: _: name most important organisations: <u>Croatian Academy of Engineering, Energy Institute Hrvoje Požar, Technology-Innovation Centre of Rijeka</u> <input type="checkbox"/> Other sector: ____: name most important organisations: ____ <u>Comments:</u> Shortly describe the type of stakeholder involvement |
| Coordination mechanisms: | <input type="checkbox"/> Formal (central) coordination body; name: ____ <input type="checkbox"/> Formal coordination process <input checked="" 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 type="checkbox"/> Informal consultations (please describe ____) <input type="checkbox"/> Others: ____ |
| Policy Implementation | |
| Responsible actors and their roles: | The Ministry of Economy, Labour and Entrepreneurship (MELE) administers programmes that are complimentary to the aims and objectives of the Ministry of Science, Education and Sports relating to technology and innovation, especially stimulating development and growth of technology-based SMEs. The MELE programmes are aimed at encouraging individuals to establish their own companies, as well as development of innovation clusters (<i>Cluster Development Programme</i>) to boost competitiveness. MELE also encourages development of <i>Entrepreneurship Centres and Regional Development Agencies</i> by providing them with financial assistance. |

| | |
|----------------------------|---|
| | There are several operational programmes of financial assistance for <i>Stimulating Productivity and Introducing New Technologies and Products</i> , and the <i>Education in Entrepreneurship Programme</i> . |
| 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 | List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used |

6 Rural Development Policy – Rural Development Programme

In the pre-war period Croatia had a well developed, although partly outdated, industry. Croatian agriculture was advanced and capable of covering the country's own consumption needs, and so was the tourist sector. However, due to the effects of the war and the problems of transition to a market economy, these three pillars of Croatian economy have suffered considerable damage. Croatia's pollution by mines causes an abundance of other economic, developmental and social disturbances. Forests, agricultural lands, meadows and pastures that had been the source of agricultural production before the war and hunting venues or places for other rural-related activities, are now inaccessible. These areas used to yield the highest quality products, some of them with a branded geographical identification (e.g. Ilok). War activities have left 12 counties "mine-polluted" i.e. 121 municipalities with nearly 1,113,000 people, which accounts for 25.1% of the whole Croatian population. The major part of the mined agricultural land in those 12 counties is state-owned despite the fact that 80% of arable land in Croatia is privately owned. One of the reasons for such a situation is that the highest pollution is in the wooded areas which are mostly in state-owned.

Over the latest census period (1991-2001) significant demographic changes took place in Croatian villages. The rural population has decreased in both absolute and relative terms. In early 1991 rural settlements numbered 2,187,000 people, which accounted for 45.7 % of Croatia's total population; whereas the 2001 Census shows that their number dropped to 1,971,000, i.e. 44.4 % of the total population. According to the OECD criterion, the percentage would be 47.6% and according to the EU criterion 36.8% of rural population.

6.1 General information - based on Part A of document analysis

Table 15: Part A - General document information

The SAPARD Programme 2005 – 2006 constitutes a strategy which aims to tackle specific drawbacks in the rural areas in Croatia which were identified in the analysis of strengths, weaknesses, opportunities and threats of the agricultural and rural sector in Croatia.

| | |
|--|---|
| Name: | SAPARD programme - Agriculture and Rural Development Plan 2006 |
| 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: of agriculture, forestry and water management _____ <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: final evaluation of the plan dated June 30, 2005 |
| Validity period: | 2005-2006 |
| Revision: | Not yet |
| Monitoring/ Evaluation: | Monitoring is carried out according to the pre-determined and agreed physical, financial and other parameters. Due to scarcity of time for implementation of the SAPARD Programme, mid-term evaluations of the Programme will not be performed. The programme evaluation will be carried out along the relevant <i>Guidelines for the Evaluation of Rural Development Programmes supported by SAPARD</i> . Due to the short implementation period there will be only an ex-post evaluation after implementation of the programme. |
| Related documents: | Act on Areas of Special State Concern (consolidated text, Official Gazette 26/03; Act on Islands (Official Gazette 34/99 of 09 April 1999, 149/99 of 31 December; Act on Hilly and Mountainous Regions (Official Gazette 12/02 of 06 February; Act on the Regional Development Fund of the Republic of Croatia (Official Gazette 107/01 of 05 December 2001) |
| Geographical | <input checked="" type="checkbox"/> National <input checked="" type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____ |

| | |
|---|--|
| scope: | |
| Budget: | <p>MEASURE: IMPROVEMENT OF RURAL INFRASTRUCTURE</p> <p>For infrastructure projects of a type which does not generate substantial net revenue, the public aid is 100% of the total eligible expenditures (EC 75% and national 25%). For other investments in infrastructure, public aid will be provided at a rate of 50% of the total eligible expenditure.</p> <p>The amount of public aid per beneficiary is limited to:</p> <p>HRK 3 million per beneficiary in unclassified roads and fire-prevention/multifunctional roads (ca. EUR 411,000)</p> <p>HRK 7 million per beneficiary in sewerage system and wastewaters treatment plant (ca. EUR 960,000)</p> <p>HRK 5 million per beneficiary in heating plants (ca. EUR 685,000)</p> |
| General description of contents as written in document | |
| Objective of the document | The Croatian SAPARD Programme 2005-2006 takes a specific role in the contribution to obtain the overall national development goals as well as the specific objectives for the agricultural and rural sector in synergy with other national and international multi- and bi-lateral programmes and actions. |
| Priorities | <p>Priority 1: Development of the rural economy;</p> <p>Priority 2: Improving the access to markets;</p> <p>Priority 3: Development of rural infrastructures;</p> |
| Structure | <ul style="list-style-type: none"> - Description of current status of agricultural and rural areas - National governance context - Objectives and strategy of the Sapard programme - Eligible measures - Financial plan, subsidy level and level of EU contribution - Administration and administrative procedures - Monitoring and evaluation |
| Measure Areas | <ul style="list-style-type: none"> - Investment in agricultural holdings - Improving the processing and marketing of agricultural and fisheries products - Improvement of rural infrastructure - Technical assistance, information and publicity campaigns |
| Follow-up / Implementation | |
| Follow-up measures: | <input checked="" type="checkbox"/> No follow-up activities so far <input type="checkbox"/> New or adapted funding programme(s) /budget line; name: <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: | <p>Sources needed to be examined:</p> <p>National legislation – agriculture, fisheries and forestry</p> <p>Pre-accession (EU) agreements and measures</p> |

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

The Sapard programme for rural development of Croatia puts an emphasis on agricultural and fisheries production, the food and processing sector, and not on forests and forestry. The impression is that in the document forestry is seen as secondary in importance. The importance of innovation is not clearly stated anywhere. Based on the document analysis the overall Innovation orientation is of medium low intensity.

Table 16: Part B - Overall Innovation Orientation

| | | |
|--|---|--|
| Overall innovation orientation (use word search function). | 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 | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the forest sector ' <u>innovation frontier</u> ' – innovation areas identified in Chapter 3 - in the document | <input checked="" type="checkbox"/> never <input type="checkbox"/> sometimes <input type="checkbox"/> frequently |

| | | |
|--|--|--|
| | Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Terms used: entrepreneurship, subsidy, incentive, competitiveness, increase of quality |
| | Further comments on overall innovation orientation of the document: | |
| Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer) | <input type="checkbox"/> No relevance at all <input type="checkbox"/> Marginal issue <input checked="" type="checkbox"/> One issue among others <input type="checkbox"/> Important issue <input type="checkbox"/> Central issue Comments: | |
| 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 (innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document) <input checked="" type="checkbox"/> rather general (innovation is addressed in overall goals, needs are identified but no specification of measures) <input type="checkbox"/> rather specific (innovation is addressed in concrete goals, measures are formulated) <input type="checkbox"/> very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist) Comments: | |
| 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: Innovation is in the context how to reach overall goals, Policy focuses on fostering critical directions of scientific and technological advance, and enhancing the flow of knowledge down along the innovation chain. | |
| Goals and objectives: Improved competitiveness and efficiency of primary agricultural, forestry and fishery production; Improved competitiveness and efficiency of processing and marketing of agricultural, forestry and fishery products; Additional employment opportunities and income for farmers and all people living in rural areas leading to improved living standards and working conditions; | | |
| Issues, problems and related topics: The document aims at achieving accelerated growth in real GDP and employment, higher competitiveness of national economy – innovation is not so often mentioned as a tool for completing these goals | | |
| Innovation areas: Forest fires; Utilization of biomass – biomass energy | | |
| General comment: Strategy for energy development | | |

Table 17: Part B - Innovation Support Measures

| | | |
|--|---|--|
| Innovation support measures <i>Consult classification in chapter 2.2.2</i> | Research and Development | Modernization of production systems aimed at decreasing the pollution of the environment through agricultural production; Improvement of the hygiene, animal welfare and environmental standards on the agricultural holdings. Improvement of the products' quality; |
| | Diffusion of innovation | Technical assistance, information and publicity campaigns are foreseen: - to provide support for the monitoring of the programme - to ensure an adequate flow of information and publicity - to provide support for the evaluation of the programme. |
| | Strengthening the knowledge base | Technical assistance, information and publicity campaigns are foreseen: - to support studies, visits and seminars - to provide support for external expertise. |

| | | |
|--|-----------------------------------|---|
| | Strengthening interaction | Under this measure the following are eligible actions provided in all cases they are approved by the Chairperson of the Monitoring Committee: - Expenditures on meetings of the Monitoring Committee, including cost of all necessary experts. - expert assistance to consider and review programme baselines and indicators - experts to assist or advise the Monitoring Committee concerning implementation and functioning of the monitoring arrangements - expenditure associated with meetings and ancillary tasks of working groups - seminars - Expenditure on information and publicity campaigns, including costs of translating, printing and distribution. |
| | Demand creation | Support for lead users, or public agencies acting as lead user |
| | Improving frame conditions | Improving access to financing, e.g. by providing guarantees |
| | Comments | |
| Priorities | | The document puts a higher priority on investments in agricultural holdings – due general situation in Croatia where agriculture is considered to be more important than forestry. Concerning innovation utilization biomass for energy stated in document would be very significant innovation in Croatian economy. |
| Assessment of overall relevance | | In all support measures, traces of innovation support measures could be found, but they are not stressed as crucial. |
| Promotion of innovation | | The analysed document poorly promotes innovation as a tool for achieving stated goals. |
| General comment: | | |

Table 9 “Part B - Cross-sectoral coordination mechanisms” below helps to collect information on cross-sectoral co-ordination mechanisms see guidelines chapter 2.3.

Table 18: Part B - Cross-sectoral coordination

| | |
|---|---|
| Policy formulation | |
| Co-ordination with other processes and documents | <i>Reform of the agricultural subsidy system: The Act on State Subsidies for Agriculture, Fisheries and Forestry (OG 87/02, 117/03 and 82/04);</i> National forest policy and strategy (Official Gazette 120/03 of 26 July 2003) Strategy and Action Plan for Biological and Landscape Diversity (Official Gazette 81/99 of 03 August 2003) BIOEN - biomass and waste utilisation programme <i>CARDS Programme</i> |
| Administrative Co-ordination: | <input checked="" type="checkbox"/> between different sections/departments within the same ministry; specify: <u>Department for forestry; Department for agriculture; Department for nature protection; Department for landscape planning</u> <input checked="" type="checkbox"/> between different ministries, specify: <u>Ministry of agriculture, forestry and water management; Ministry of Environmental Protection, Spatial Planning and Construction; Ministry of economy, labour and entrepreneurship...</u> <input checked="" type="checkbox"/> between ministries and other public organizations / agencies, specify: Croatian Associations of employers Faculty of Agronomy NGO for Environmental Protection – Zelena akcija (Green Action) Croatian Communities of Counties Croatian Chamber of Economy Croatian Chambers of Crafts Croatian Federation of Cooperatives <u>Comments:</u> In order to make sectoral analyses and draft the Plan for agriculture and rural development under the SAPARD Programme 2005-2006, the Department for Sustainable Development of Rural Areas within the Ministry of Agriculture, Forestry and Water Management has been nominated as responsible for its drafting. The Working group for Plan design is organised on three levels: The first two levels comprise representatives of the Ministry of Agriculture, Forestry and Water Management, and they have prepared the first draft of the Plan, and have specified the priorities in line with SAPARD goals and priorities stated in the European Partnership document. The third level comprises |

| | |
|--|--|
| | representatives of other ministries and economic, social and environmental partners |
| Stakeholder involvement | <input checked="" type="checkbox"/> Forestry: name most important organisations: <u>Hrvatske šume' ltd Zagreb – state enterprise for forest management; Private forest owners' association; Forestry chamber</u> <input checked="" type="checkbox"/> Forest-based industries: name most important organisations: <u>wood industry – privately owned firms for primarily wood processing; furniture factories</u> <input checked="" type="checkbox"/> Agriculture: name most important organisations: <u>mostly little agricultural owners with few large holdings</u> <input type="checkbox"/> Tourism: name most important organisations: ____ <input checked="" type="checkbox"/> Energy: name most important organisations: <u>HEP – Croatian electric/energy enterprise</u> <input checked="" type="checkbox"/> Environment: name most important organisations: <u>public organizations for nature protection</u> <input type="checkbox"/> Other sector: ____: name most important organisations: ____ <input type="checkbox"/> Other sector: ____: name most important organisations: ____ <u>Comments:</u> From those included in decision making bodies to advisory role and those which are delegated to prepare specific documents to those who are just formally included in the processes |
| Coordination mechanisms: | <input checked="" type="checkbox"/> Formal (central) coordination body; name: Managing authority, the Directorate for Sustainable Development of Rural Areas is responsible for implementation of the SAPARD Programme <input type="checkbox"/> Formal coordination process <input checked="" 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 type="checkbox"/> Informal consultations (please describe ____) <input type="checkbox"/> Others: ____ |
| Policy Implementation | |
| Responsible actors and their roles: | <p>- The National Fund (NF) – (hereinafter “the NF”) is a central treasury entity under the responsibility of a National Authorising Officer (hereinafter “NAO”) in the Ministry of Finance to manage the Community pre-accession assistance allocated to the Recipient under decentralised management in accordance with the provisions of Article 164 FR.</p> <p>- National Authorising Officer (NAO) - The NAO shall be an official of ministerial or state secretary status, appointed by the Recipient. The NAO may not hold at the same time the office of the National Aid Coordinator (hereinafter “the NAC”) or of the National ISPA Coordinator (hereinafter “the NIC”) or chair of Managing authority.</p> <p>- Managing authority - the Directorate for Sustainable Development of Rural Areas is responsible for implementation of the SAPARD Programme.</p> <p>- Directorate for Market and Structural Support in Agriculture within the MAFWM acts as a SAPARD Agency.</p> |
| Level of delegation | <input checked="" type="checkbox"/> Decentralized, e.g. <input 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 | <p>Description of implementing procedures</p> <p>In co-operation with the Directorate for Market and Structural Support in Agriculture, the Ministry of Agriculture, Forestry and Water Management of the Republic of Croatia will issue the “Ordinance on SAPARD program implementation, which will be published in the Official Gazette of the Republic of Croatia and mass media. The Ordinance will lay down all the elements of the public tender, published in the Official Gazette of the Republic of Croatia, the mass media and in the media at the local level.</p> |

(6.3 Appraisal of effects – based on Part C of document analysis) by sub-group

Table 19: Part C - Appraisal of Effects - General Information

| | Whole document (RDP) | Forestry Part |
|--|-----------------------------|----------------------|
| Total amount of funding | n. a. | 0 |
| Total number of projects | | |
| Total number of beneficiaries | | |
| Average amount of funding per project | in € | in € |
| Median of project funding | in € | in € |
| Average amount of funding per beneficiary | in € | in € |
| Median of funding per beneficiary | in € | in € |
| General comment: | | |
| <p>The obligation to monitor the implementation of the SAPARD Programme is regulated by Article 5 of Regulation 1268/1999, stating that the subsidy is subject to prior, permanent and final evaluation. These evaluations are aimed at assessing the performance of a programme and of its effects. Monitoring is carried out according to the pre-determined and agreed physical, financial and other parameters. Due to scarcity of time for the implementation of the SAPARD Programme in the Republic of Croatia, mid-term evaluations of the Programme will not be performed.</p> <p>A Monitoring Committee will be established in line with the Regulations EC 1268/99 and Regulation 1260/99. Its members will be the representatives of state administration, social, economic and environmental partners, and the representatives from the private entrepreneurial sector, local administration and regional administration. The Secretariat of the Monitoring Committee is responsible for documentation, reports, work programme and conclusions of the meetings. Also, the Monitoring Committee must establish and keep the database necessary for programme implementation.</p> <p>The programme evaluation will be carried out along the relevant <i>Guidelines for the Evaluation of Rural Development Programmes supported by SAPARD</i>. Due to the short implementation period there will be only an ex-post evaluation after implementation of the programme. The evaluation should recapitulate and judge the programme after its completion. This step is central for the accountability and transparency of the interventions with regard to the authorities involved and the public.</p> <p>Ex-ante evaluation of the Plan - final report dated June 30, 2005.</p> | | |

Please fill in table 10 for only for the forestry part of the Rural Development Programme 2000-2006. The categories refer to the classification of innovation support in chapter 2.2.2. Gathering data for these categories includes re-ordering of monitoring data. Participants who undertake this task will receive further special guidance.

Table 20: Part C - Appraisal of Effects: Funding for private sector innovation

| Support for | Research & development | Diffusion of innovation | Strengthening knowledge base | Strengthening interaction | Demand Creation |
|---|-----------------------------------|--------------------------------|-------------------------------------|----------------------------------|------------------------|
| Volume of funding in € | | | | | |
| Share of funding in overall funding in % | | | | | |
| Number of projects supported | | | | | |
| Share of projects in all projects in % | | | | | |
| Average funding per project in € | | | | | |
| Number of beneficiaries | | | | | |
| Share of beneficiaries | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| in total number of beneficiaries in % | | | | | |
| Average amount of funding per beneficiary in € | | | | | |
| Priorities of funding | Please state which activities were most often supported in this category (see list in chapter 2.2.2) | Please state which innovation areas were most often supported in this category (see list in chapter 2.2.2) and in what stage of adoption | Please state which activities were most often supported in this category (see list in chapter 2.2.2) | Please state which activities were most often supported in this category (see list in chapter 2.2.2) | Please state which activities were most often supported in this category (see list in chapter 2.2.2) |
| Overall assessment: | | | | | |
| The document recognizes (indirectly) the significance of innovation – it aims at starting new product, services and increase of production quality in order to achieve greater GDP, higher employment and better life style quality. | | | | | |
| General comment: | | | | | |
| Qualitatively better analysis of the document (Appraisal of the effects) could be done after completed ex-post evaluation after implementation of the programme. | | | | | |

Table 21: Evaluation documents for Task 2: Please list available evaluation documents incl. name, reference number and publication date

| |
|---|
| <p>Rural Development Policy (Regional or National Rural Dev. Programme, Forestry Part): Evaluation documents: SAPARD programme – Agriculture and Rural Development Plan 2006 Publication Date: Ex-ante evaluation of the Plan - final report dated June 30, 2005</p> |
|---|

7 Regional Development Policy

Croatia was faced with outstanding challenges on its development path in the 1990's. The economy suffered from the trauma of direct and indirect war damage. A sharp fall in industrial production, the collapse of the banking system, as well as corruption, left their mark. The socio-economic disparity across the counties in Croatia is large and continues to widen in most cases. The Strategy of Capacity Building for Regional Development proposes a new set of complementary relationships between the central government and stakeholders in the regions, counties and local places. It invites these development actors to take part in a debate around the key issues for socio-economic cohesion and competitiveness within the regions and to define priorities for the counties and wider regions based upon their real needs.

The Strategy is a framework for the management of three vital sub-national dimensions of development: a new unified national system for stimulating and guiding the development effort at county level based upon collaborative partnership for county and wider region development, a concerted and targeted Strategy for tackling the causes of disadvantage in the most lagging parts of the country, a coherent approach to cross-border and inter-regional cooperation as in inescapable priority for Croatia given its very geography. The Strategy provides a solid base for better life for all in the regions.

7.1 General information - based on Part A of document analysis

Table 22: Part A - General document information

| Table 22: Part A - General document information | |
|--|---|
| Name: | Strategy of Capacity Building for Regional Development |
| 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 Sea, Tourism, Transport and 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: - |
| Validity period: | Since 2002. |
| Revision: | n. a. |
| Monitoring/ Evaluation: | n. a. |
| Related documents: | Regional Operational Programme; The National Development Plan |
| Geographical scope: | <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____ |
| Budget: | € 1.513.750 |
| General description of contents as written in document | |
| Objective of the document | System for stimulating and guiding the development effort at country level based upon collaborative partnerships; tackling the causes of disadvantage in the most lagging parts of the country; coherent approach to cross-border and inter-regional cooperation |
| Priorities | <ol style="list-style-type: none"> 1. To strengthen development capacity of counties and wider regions across the country to utilize and manage their development potential. 2. To support the areas persistently lagging behind to contribute to sustainable national development and competitiveness 3. To diminish the negative effect of borders to the development of cross-border cooperation 4. To reduce legal complexity and to introduce legal conditions for effective management of regional development 5. To ensure effective policy management and institutional framework at all levels. |

| | |
|-----------------------------------|--|
| Structure | 1 Rationale 1.1 Why a National Strategy for Regional Development 1.2 The relevance of regional policy 2 The Strategy 2.1 Goal of the Strategy 2.2 Strategic objective 1: All counties enabled to contribute to sustainable development 2.3 Strategic objective 2: Have an effective management framework for regional development in place 3. The Instruments 3.1 Country and Wider Region Development Programme 3.2 Programme for Development of Disadvantaged Areas 3.3 Programme for Cross-border and Inter-regional Cooperation 3.4 Framework Law on Regional Development |
| Measure Areas | A new relationship between national and sub-national levels; a new Law of Regional Development; an institutional structure based on inter-ministerial coordination; coordination of available resources; infrastructure improvement. |
| 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: CARDS 2004 Croatia National Programme <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: | Regional development policy should include forestry sector issues. |

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

Table 23: Part B - Overall Innovation Orientation

| | | |
|---|---|---|
| Overall innovation orientation (use word search function). | 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 | <input checked="" type="checkbox"/> never <input type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the forest sector ' <u>innovation frontier</u> ' – innovation areas identified in Chapter 3 - in the document | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Terms used: competitiveness |
| | Further comments on overall innovation orientation of the document: | |
| Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer) | <input checked="" type="checkbox"/> No relevance at all <input type="checkbox"/> Marginal issue <input type="checkbox"/> One issue among others <input type="checkbox"/> Important issue <input type="checkbox"/> Central issue Comments: | |
| Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) | <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>) | |

| | |
|--|--|
| Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry | <input checked="" 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: vision, measures and goals are defined |
| 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 type="checkbox"/> Traditional S&T policy with systemic elements <input type="checkbox"/> Systemic innovation policy with S&T policy elements <input checked="" type="checkbox"/> Predominantly systemic innovation policy Comments: A new set of complementary relationships between central government and stakeholders in the regions, counties and local places who should take part in debate around the key issues for socio-economic cohesion and competitiveness. |
| Goals and objectives: Goal: To have functioning regional development policy in Croatia contributing to sustainable national development and competitiveness by 2013. Objectives: Counties enabled to contribute to sustainable development; an efficient legal and management framework | |
| Issues, problems and related topics: | |
| Innovation areas: n. a. | |
| General comment: Crosssectoral dialogue and cooperation in common benefit. | |

Table 7: Part B - Innovation Support Measures

| | | |
|--|--|--|
| Innovation support measures <i>Consult classification in chapter 2.2.2</i> | Research and Development | Proposed measures: effect monitoring, evaluation and reporting system, the establishment of partnerships and developing technical skills and knowledge of the members of the partnerships |
| | Diffusion of innovation | n.a. |
| | Strengthening the knowledge base | Promoting mobility between people who are taking part in regional and local government, academic fields and civil societies. |
| | Strengthening interaction | The Strategy links a range of central government ministries and institutions with socio-economic actors and institutions across the counties. |
| | Demand creation | The Strategy was created because the Croatian government has identified widening gaps in socio-economic performance and fortunes between different parts and different social groups within the country. |
| | Improving frame conditions | Institutional reforms in the country and local self- governments, social partners and civil society and improving access to financing. |
| | Comments: Proposed measures mentioned above refer to the Strategy not to innovations in the Strategy. | |
| Priorities | Strengthening the knowledge base and research and development proposed measures | |
| Assessment of overall relevance | The Strategy haven't concrete strategy measures for innovation | |
| Promotion of innovation | The Strategy haven't concrete strategy measures for innovation | |
| General comment: | Accept and apply European innovation strategy and measures for the regional development policy. | |

Table 9 "Part B - Cross-sectoral coordination mechanisms" below helps to collect information on cross-sectoral co-ordination mechanisms see guidelines chapter 2.3.

Table 24: Part B - Cross-sectoral coordination

| | |
|---|---|
| Policy formulation | |
| Co-ordination with other processes and documents | None, because The Strategy doesn't have formal approval. |
| Administrative Co-ordination: | <input checked="" type="checkbox"/> between different sections/departments within the same ministry; specify: <u>Ministry of Sea, Tourism, Transport and Development (MSTTD)</u> <input type="checkbox"/> between different ministries, specify: _____ <input type="checkbox"/> between ministries and other public organizations / agencies, specify: _____ <u>Comments:</u> The preparation of The Strategy was led by MSTTD |
| Stakeholder involvement | <input type="checkbox"/> Forestry: name most important organisations: _____ <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 type="checkbox"/> Environment: name most important organisations: _____ <input checked="" type="checkbox"/> Other sector: <u>tourism</u> : name most important organisations: <u>MSTTD</u> <input type="checkbox"/> Other sector: ____: name most important organisations: _____ <u>Comments:</u> The Strategy will be implementing by MSTTD and EU budget. |
| Coordination mechanisms: | <input checked="" type="checkbox"/> Formal (central) coordination body; name: <u>MSTTD</u> <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 type="checkbox"/> Informal consultations (please describe _____) <input checked="" type="checkbox"/> Others: <u>counties on local level</u> |
| Policy Implementation | |
| Responsible actors and their roles: | MSTTD (Department for Integrated Regional Development) Roles: preparation and management; guidelines and facilitating; consultation on priorities |
| 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 | Develop a model for better stakeholder involvement on local level. |

8 Sustainable Development Policy

As part of its international activities and as a member of the Environment for Europe process (UN/ECE), the Republic of Croatia had the obligation to draft the national environmental action plan. Within the Environment for Europe process and during the Ministerial Conference held in Lucerne in 1993, a proposal was adopted for Central and Eastern European (CEE) countries to develop their national environmental action plans, which should contain "an environmental problems list with priorities." It was envisaged that the priorities be determined with regard to the following criteria: impact of the polluted environment on public health, the environment itself, i.e. ecosystems, and economic development.

In the Strategy, the principle of sustainable development simultaneously refers to:

Environmental requirements - (emission control) maintaining emissions within the nature carrying capacity limits; enable/permit only the projects that respect integrated protection of an ecosystem and individual species; use of renewable resources within the limits of their renewability and linking of non-renewable sources (e.g. fossil fuels) use rate with finding of alternative solutions.

Sociological requirements – ensuring better social conditions for all the parts of the society, e.g. improvement in housing conditions, health care, education, employment.

Economic requirements – meeting the needs of the growing population demands permanent economic development. The income and expenses of private and public budgets must be balanced on a long-term basis.

The Strategy offers an option to propose setting up of organizational and economic grounds that should enable implementation of the sustainable development principles.

8.1 General information - based on Part A of document analysis

Table 25: Part A - General document information

| | |
|--|--|
| Name: | Strategy and National Environmental Action Plan |
| Adoption: Please mark by whom and at which level the document is adopted | <input type="checkbox"/> Parliament <input checked="" 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: 25th January, 2002. |
| Validity period: | cca 10 years (2002 – 2012) |
| Revision: | Revision is planned but the date isn't mentioned. |
| Monitoring/ Evaluation: | Program monitored by Ministry of Environmental Protection, Physical Planning and Construction |
| Related documents: | Related documents are: The 5 th Environmental Action Programme of the EU; The AGENDA 21; National Environmental Action Programmes of other countries |
| Geographical scope: | <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____ |
| Budget: | cca 7.2 billion USD |
| General description of contents as written in document | |

| | |
|-----------------------------------|---|
| Objective of the document | <ol style="list-style-type: none"> 1. Environmental protection, conservation and sustainable use of natural resources 2. Improvement of environmental management and prevention of environmental pollution 3. Changes of legislative, administrative, financial and institutional framework on the local and national level, including the human resources capacity building with a view of approaching the EU 4. Integration of environmental policy into other sectorial policies (tourism, energy, industry, agriculture, forestry, mining, transport, etc.) 5. Establishment of a comprehensive and singular monitoring and information system 6. Public-awareness raising and public involvement in the decision-making process. |
| Priorities | <ol style="list-style-type: none"> 1. Waste management 2. Water resources management 3. Economic development and environmental impacts (transport, agriculture, industry, tourism, energy sector) 4. Institutional capacity building |
| Structure | <ol style="list-style-type: none"> 1. Introduction 2. Strategy and National Environmental Action Plan 3. Participants and shared responsibility 4. Thematic issues 5. Risk and accident management 6. Instruments for programme implementation 7. Environmental Strategy Implementation, improvement, monitoring 8. Croatia and international community 9. Implementation costs |
| Measure Areas | Institutional organization based on continuous human resources capacity building and quality communication system, the Sustainable development should be set up and an advisory role should be assumed by the Technical Environmental council. |
| Follow-up / Implementation | |
| Follow-up measures: | <input checked="" type="checkbox"/> No follow-up activities so far <input type="checkbox"/> New or adapted funding programme(s) /budget line; name: <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: | Influence of forestry and wood industry in sustainable development in the country. Reference: Mediterranean Strategy for Sustainable Development" (MSSD) |

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

Table 26: Part B - Overall Innovation Orientation

| | | |
|---|--|---|
| Overall innovation orientation (use word search function). | 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 | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the forest sector ' <u>innovation frontier</u> ' – innovation areas identified in Chapter 3 - in the document | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Terms used: competitiveness |
| | Further comments on overall innovation orientation of the document: | |
| Relevance of innovation: Please mark how much relevance is given to | <input type="checkbox"/> No relevance at all <input checked="" type="checkbox"/> Marginal issue <input type="checkbox"/> One issue among others | |

| | |
|--|--|
| innovation in the document (one answer) | <input type="checkbox"/> Important issue <input type="checkbox"/> Central issue Comments: |
| 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 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: |
| 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 type="checkbox"/> Traditional S&T policy with systemic elements <input type="checkbox"/> Systemic innovation policy with S&T policy elements <input checked="" type="checkbox"/> Predominantly systemic innovation policy Comments: Innovation policy is not limited to the economic domain but is placed on the agenda of various policy domains (e.g. industrial policy, policies for science and technology, education, health, etc.) |
| Goals and objectives: Goals: Enhancing forest management, implementation of the forest-opening strategy, taking into account the principles and measures of protecting biological and landscape diversity, implementation of the mine-clearing strategy Objectives: Implementation of the integrated forestry policy based on sustainable development principles, preservation of the stability of forest ecosystem | |
| Issues, problems and related topics: Implementation of the sustainable forest management and protection of biodiversity, inconsistency of the forestry policy, prevention of the degradation and deterioration of forest resources, inadequate valorisation of forests in spatial management, enhancement of the generally beneficial functions of private forests | |
| Innovation areas: n. a. | |
| General comment: The list of goals, objectives and problems mentioned above refers only to forestry sector. | |

Table 27: Part B - Innovation Support Measures

| | | |
|--|---|--|
| Innovation support measures <i>Consult classification in chapter 2.2.2</i> | Research and Development | Strategy will regularly be amended/corrected pursuant to the Sustainable Development Council/Technical Environmental Council proposals submitted to the Minister. |
| | Diffusion of innovation | n. a. |
| | Strengthening the knowledge base | Science should take an important role in resolving environmental issues, particularly with regard to explanation of human activities in the environment and to indication of the related limits. Together with industry it should investigate new environmentally acceptable technologies, raw materials and energy forms. |
| | Strengthening interaction | Promoting interaction between research institutions and industry. |
| | Demand creation | Reorientation of public procurement of innovations (an increase in public awareness in the Croatian society that the preserved environment is the most important resource in the economic development of the country). |
| | Improving frame conditions | Institutional reforms and adoption standards and norms in all sectors. |
| | Comments: Proposed measures mentioned above refer to the Strategy and National Environmental Action Plan | |

| | |
|--|---|
| Priorities | Priority areas are strengthening the knowledge base and improving frame conditions. |
| Assessment of overall relevance | The Strategy hasn't concrete strategy measures for innovation. |
| Promotion of innovation | The Strategy hasn't concrete strategy measures for innovation. |
| General comment: | At the moment there is not innovation strategy within sustainable development policy. |

Table 9 "Part B - Cross-sectoral coordination mechanisms" below helps to collect information on cross-sectoral co-ordination mechanisms see guidelines chapter 2.3.

Table 28: Part B - Cross-sectoral coordination

| | |
|---|---|
| Policy formulation | |
| Co-ordination with other processes and documents | The Strategy doesn't mention it. |
| 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, Forestry and Water Management; Ministry of health, Ministry of Sea, Tourism, Transport and Development, Ministry of Economy <input type="checkbox"/> between ministries and other public organizations / agencies, specify: _____ <u>Comments:</u> To ensure conditions for all partners and mobilise complete capacities of all other sectorial policies and different administration levels. |
| Stakeholder involvement | <input checked="" type="checkbox"/> Forestry: name most important organisations: Ministry of Agriculture, Forestry and Water Management; <input type="checkbox"/> Forest-based industries: name most important organisations: _____ <input checked="" type="checkbox"/> Agriculture: name most important organisations: Ministry of Agriculture, Forestry and Water Management; <input checked="" type="checkbox"/> Tourism: name most important organisations: Ministry of Sea, Tourism, Transport and Development <input type="checkbox"/> Energy: name most important organisations: _____ <input checked="" type="checkbox"/> Environment: name most important organisations: MZO Ministry of Environmental Protection and Physical Planning <input type="checkbox"/> Other sector: ____: name most important organisations: _____ <input checked="" type="checkbox"/> Other sector: ____: name most important organisations: DUV State Water Directorate – HV Croatian Waters - HUC Croatian Roads Directorate - HEP Croatian Power Supply Company - HZ State Hydro-Meteorology Institute - HGK Croatian Chamber of Economy - HŽ Croatian Railways - LU Local self-government (city, municipality) - MK Ministry of Culture - MP Ministry of Maritime Affairs, Transport and Communications - MPO Ministry of Agriculture and Forestry - MUP Ministry of Interior - MZ Ministry of Health– MG Ministry of Economy – MR Ministry of Labour and Social Welfare - MZN Ministry of Science - MŠ Ministry of Education and Sport – MEI Ministry of European Integration - MVP Ministry of Foreign Affairs - VRH Government of the Republic of Croatia - ZZ Institute for Public Health - ŽU County Administration <u>Comments:</u> through working groups |
| Coordination mechanisms: | <input checked="" type="checkbox"/> Formal (central) coordination body; name: Ministry of Environmental Protection, Physical Planning and Construction <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 type="checkbox"/> Informal consultations (please describe _____) |

| | |
|--|---|
| | <input type="checkbox"/> Others: |
| Policy Implementation | |
| Responsible actors and their roles: | The state will have to create conditions, primarily free access to information, the involvement into the decision-making and implementing processes, as well as financial conditions for activity of individuals and groups. |
| Level of delegation | <input checked="" type="checkbox"/> Decentralized, e.g. <input 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 | Better coordination between different ministries is needed. |

9 Renewable Energy Policy

This policy field has become very interesting in recent years because the price of oil is unstable, which makes renewable energy resources more competitive than before. Croatia produces about 50 % of electricity from hydroelectric power plants. 37 % of Croatia is covered with forests. These two facts rank high in future energy production and remind us the importance of good policy and sustainable management; otherwise, we could destroy them for future generations. The first step for Croatia was to create the Energy Sector Development Strategy, which provided guidelines for future policy decision making.

The energy strategy specifies objectives and measures to be implemented in the energy sector. A strategy is also required in order to follow international environmental obligations and conform to energy management practices implemented throughout the European Union. The energy sector development strategy has its economic, legal, organizational, institutional and educational aspect. This document proposes a specific energy sector development model for Croatia, since a universal model has not yet been developed.

The goals and the implementation strategy for every renewable energy resource depend on their numerous characteristics, that is, on the utilization program. What it has in common with other resources is a significant increase of contribution to electric energy generation by the year 2030, which is a general trend in the member countries of the European Union.

9.1 General information - based on Part A of document analysis

Table 5: Part A - General document information

| | |
|--|--|
| Name: | Energy Sector Development Strategy of the Republic of Croatia |
| Adoption: Please mark by whom and at which level the document is adopted | <input checked="" 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: March 19, 2002 |
| Validity period: | 2012 |
| Revision: | No revision planned in near future. |
| Monitoring/ Evaluation: | The implementation of the goals set in the strategy is carried through the Implementation Programme of the Energy Sector Development Strategy, which is adopted by the Parliament for a period of three years. After this period the Government (Ministry of Economy, Labour and Entrepreneurship) should report to the Parliament regarding the implementation, and propose modifications as necessary. |
| Related documents: | Implementation Programme of the Energy Sector Development Strategy of the Republic of Croatia. |
| Geographical scope: | <input checked="" type="checkbox"/> National <input type="checkbox"/> Regional; name: _____ <input type="checkbox"/> Local, name: _____ |
| Budget: | There is no direct budget line. |
| General description of contents as written in document | |
| Objective of the document | To define the major strategic goals in the energy sector development of the Republic of Croatia. |
| Priorities | Sustainable development; Security of energy supply; Support for renewable energy sources utilisation; Support for energy efficiency measures; Diversification of energy sources |

| | |
|-----------------------------------|--|
| Structure | 1. Introduction; 2. Description of the main aspects of the energy system; 3. Basis for economic and social development; 4. Energy sector development possibilities; 5. Goals and measures of energy efficiency; 6. Goals and measures of renewable energy sources; 7. Environment protection; 8. Private sector in energy; 9. Financing; 10. Legislation; 11. Organisation of activities at national, regional and local level; 12. Technology development; 13. Education and international cooperation; 14. Public information and promotion |
| Measure Areas | Measures that need to be implemented can be classified in several groups: 1. conceptual, including procedures and discussions, and acceptance of the energy sector reform concept by the Government of the Republic of Croatia and the Croatian parliament, 2. legislative, including the energy sector reform by means of amendments to the existing laws and acceptance of new solutions, 3. restructuring and privatization, which include restructuring and redefining of HEP and INA privatization concepts in accordance with the accepted reform concept of the energy sector, 4. economic, which includes the creation of tariff systems, establishment of a special fund, amendments to the tax and customs laws and amendments to the law to support technological development and small enterprises, 5. organizational, which include work distribution and competence on the national and local levels, and carrying out of appropriate procedures and documents, 6. institutional, related to the creation of necessary institutions that will implement the energy sector reform, on the national and local levels, 7. educational, information, consultation and promotional measures. |
| Follow-up / Implementation | |
| Follow-up measures: | <input type="checkbox"/> No follow-up activities so far <input type="checkbox"/> New or adapted funding programme(s) /budget line; name: <input checked="" type="checkbox"/> New or adapted regulations/laws; name: Package of five energy laws and related sub laws <ul style="list-style-type: none"> o The Electricity Market Law will regulate relations in the generation, transmission, distribution and supply of electricity o Gas Market Law will regulate relations in production, transport, distribution and supply of gas o Oil Products Market Law will regulate relations in production, transport and sale of oil products. <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: | Administrative consequences of the strategy implementation are the creation of a completely new legislation within the energy sector and the establishment of new institutions. By changing the legislation and establishing adequate institutions the Republic of Croatia will become closer to the European Union standards in energy sector relations, which will enable simple incorporation in the European Union in this segment when political and other economical assumptions are fulfilled. |

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

Table 6: Part B - Overall Innovation Orientation

| | | |
|--|---|--|
| Overall innovation orientation (use word search function). | 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 | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |
| | Please mark the frequency of occurrence of the forest sector ' <u>innovation frontier</u> ' – innovation areas identified in Chapter 3 - in the document | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently |

| | | |
|---|--|--|
| | Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness | <input type="checkbox"/> never <input checked="" type="checkbox"/> sometimes <input type="checkbox"/> frequently Terms used: entrepreneurship, diversification, competitiveness, bio fuel, biomass, scenarios, efficiency |
| | Further comments on overall innovation orientation of the document: document introduce new energy resources not innovations | |
| Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer) | <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: | |
| 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 checked="" 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: Innovation as a part of competitiveness | |
| 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: A basic understanding of innovation processes as being linear, starting with laboratory science and moving through successive stages until new knowledge is built into commercial applications that diffuse in economic systems. | |
| Goals and objectives: No specific objectives are given, rather the need for technology innovation in order to further enable the utilisation of renewable energy sources is specifically pointed out. | | |
| Issues, problems and related topics: Technology development and innovation is considered as one of the topics, however no specific issues or problems are addressed. | | |
| Innovation areas: Energy production technology, specifically energy production from renewable energy sources. | | |
| General comment: | | |

Table 7: Part B - Innovation Support Measures

| | | |
|--|---|--|
| Innovation support measures <i>Consult classification in chapter 2.2.2</i> | Research and Development | Enterprise research, i.e. support for applied research in the enterprise or in cooperation of enterprise and science organisations |
| | Diffusion of innovation | Diffusion of processes (investment support for the acquisition of significantly new machineries/technologies) |
| | Strengthening the knowledge base | Integrating innovation in extension services, |

| | | |
|--|-----------------------------------|--|
| | Strengthening interaction | Promoting public – private partnerships, Promoting cooperation across sectors, Promoting university/research institutions – enterprise cooperation, Promoting interaction with users (customers and consumers). |
| | Demand creation | Reorientation of public procurement policy (creating consumer demand), |
| | Improving frame conditions | Adaptation of standards and norms |
| | Comments | |
| Priorities | | production diversification and security of supply, domestic production and decrease of energy source import, significant decrease of energy sector environmental impact, new employment and investments in rural areas, areas of special government care, coastline and islands. |
| Assessment of overall relevance | | This document doesn't have high influence in forestry sector. Three development scenarios were elaborated: A Reference Scenario which assumes a 5 percent GDP growth between the years 1994 and 2025; a Low-Growth Scenario with a rate of growth around 3 percent until 2025; and a High-Growth Scenario with a 7 percent GDP growth rate until the year 2005, 6 percent until 2015, and ca. 5 percent until 2025. |
| Promotion of innovation | | BIOEN (Biomass and waste energy use program), SUNEN (Solar energy use program), ENWIND (Wind energy use program), MAHE (Small hydro power plant construction program), and GEOEN (Geothermal energy use program). |
| General comment: | | New research as a part of forestry contribution in renewable energy in the country. Innovation measures in forestry. |

Table 9 "Part B - Cross-sectoral coordination mechanisms" below helps to collect information on cross-sectoral co-ordination mechanisms see guidelines chapter 2.3.

Table 8: Part B - Cross-sectoral coordination

| Policy formulation | |
|---|---|
| Co-ordination with other processes and documents | National Strategy of Forestry; National Strategy of Environment Protection |
| Administrative Co-ordination: | <input type="checkbox"/> between different sections/departments within the same ministry; specify: _____ <input checked="" type="checkbox"/> between different ministries, specify: <u>Ministry of Economy, Labour and Entrepreneurship; Ministry of Agriculture, Forestry and Water Management; Ministry of Environmental Protection, Physical Planning and Construction</u> <input type="checkbox"/> between ministries and other public organizations / agencies, specify: _____ <u>Comments:</u> coordination through working groups |
| Stakeholder involvement | <input checked="" type="checkbox"/> Forestry: name most important organisations: <u>Hrvatske šume d.o.o.</u> <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 checked="" type="checkbox"/> Energy: name most important organisations: <u>Croatian Operator of Energy Market (HROTE)</u> <input type="checkbox"/> Environment: name most important organisations: _____ <input type="checkbox"/> Other sector: _____: name most important organisations: _____ <input type="checkbox"/> Other sector: _____: name most important organisations: _____ <u>Comments:</u> Shortly describe the type of stakeholder involvement |
| Coordination mechanisms: | <input type="checkbox"/> Formal (central) coordination body; name: _____ <input type="checkbox"/> Formal coordination process <input checked="" 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 type="checkbox"/> Informal consultations (please describe _____) <input type="checkbox"/> Others: _____ |
| Policy Implementation | |
| Responsible actors and their roles: | Ministry of Economy, Labour and Entrepreneurship is responsible for the implementation of the National Energy Strategy and for the implementation of renewable energy sources |
| 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 | Energy efficiency will be performed in Croatia based on the National Energy Programs, the most important being KUENZgrada (Energy efficiency in building construction), MIEE (Industrial energy efficiency network), KOGEN (Cogeneration program), KUENcts (Centralised thermal systems' energy efficiency program), and the forthcoming program TRANCRO (Transport energy program). These programs include all the main areas of energy consumption where energy efficiency can be increased. |

10 Research Needs

In practice, Croatian scientists are not motivated to patent their innovations and make use of a special state strategy. They compete insufficiently in the EU scientific projects. So far, only a few scientists have coordinated the FE6 EU project.

Except for the recently established company "*Ruđer inovacije*", which is only at the beginning, there are no functional spin-off companies from Croatian universities and scientific institutes. Technological parks in the world are places of intensive research work and seats of small and medium ICT and biotechnological companies, but Croatia does not provide the contents needed for rapid development of small high tech companies.

Virtually no Croatian university or scientific institution has a functioning technology transfer centre with highly trained teams, whose task would be to help scientists to successfully protect and patent innovations. There are very few patents, particularly internationally protected ones.

The many strengths/capabilities of the forest sectors, such as, e.g., the high quality of its raw material base, experience, knowledge and know-how of people employed in the sector, and its traditional export destinations, dictate that, in terms of implementing policies, the sector should and shall act in the following manner: (1) increase its competitiveness by modernising technological capacities; (2) promote export and development through marketing, design, product development and branding; (3) directly help companies, especially small and medium size companies (SMEs), with the aim of developing export strategies and reaching foreign markets; (4) promote research and development (R&D), especially the development and transfer of new technologies; and (5) develop clusters. At the same time, these are the foundations of the development of the sector: (1) manpower and infrastructure; (2) knowledge, skills, training and education; (3) innovation and flexibility; (4) good links in terms of infrastructure and flow of information; (5) protection of the environment.”

Some of possible research areas are: change the existing production structure in forestry in favour of new products, increase the share of final products on the market, increase the competitiveness of forest products, increase employment, retain the population in rural areas, stimulate the development of forestry and wood processing.

Future goals of research could be:

- I. Investigate the relationship between innovativeness and creativity, as well as the meaning and definition of innovativeness in Croatian forestry. Analyze the problem of insufficient innovativeness and competitiveness of state and private forest owners in Croatia.
- II. Acquire knowledge about the existing European and national policies, strategies and programmes, as well as their implementation mechanisms in the fields of innovations, rural development, regional development and policy of sustainable management.
- III. Identify territorially based projects supported by innovation and rural development projects that involve forestry companies or private owners. Analyze case studies and pass recommendations and conclusions on the basis of positive examples.
- IV. Identify products based on innovative projects, rural development, regional and sustainable development, and in particular those that include forestry, private forest owners and wood processing producers.
- V. Based on the analyses, determine development indicators, make recommendations and propose future developmental trends in the field of implementation of forestry policies and directives in accordance with the strategy of wood processing development.

References

1. Martinić, I., Šporčić, M., Vondra, V.: Inovacijski procesi kao ključ provedbe Hrvatske šumarske politike. Glasnik za šumske pokuse, posebno izdanje 5, str. 703-714; Šumarski fakultet Sveučilišta u Zagrebu, Zagreb, 2006.
2. Šporčić, M., Martinić, I.: Uslužni izvoditelji šumskih radova u Hrvatskoj. Šumarski list, vol. CXXVIII, 11-12: 633-648, Zagreb, 2004.
3. Martinić, I.: Šumarska politika - gospodarenje šumama pred mnogim izazovima. 'Znanost o potrajnom gospodarenju hrvatskim šumama' znanstvena knjiga, Šumarski fakultet Sveučilišta u Zagrebu i Šumarski institut Jastrebarsko, "Hrvatske šume" p.o. Zagreb, str. 597-605. Zagreb, 2002.
4. Posavec, S., Šporčić, M., Čavlović, J., 2005: Small-scale private Forest Management in Croatia. Proceedings of the International IUFRO Symposium – Small-scale Forestry in a Changing Environment, May 30 – June 4, 2005. Vilnius, Lithuania. p. 159-166.
5. Posavec, S., Greger, K., Figurić, M.: The analysis of non-wood forest products, University of Zagreb, Faculty of Forestry, Zagreb, Croatia, May 2004, pg. 67-72
6. Rametsteiner E. Kubezko K., Weiss G. (2006): Innovation and Entrepreneurship in Forestry in Central Europe; EFI Research Report, Joensuu, Finland
7. Šporčić, M., 2005: Uvid u neka gledišta poduzetništva u šumarstvu Europe. Šumarski list 129 (5-6): 287- 298.
8. Šporčić, M., Martinić, I., 2005: Model licenciranja izvoditelja šumskih radova. Šumarski list 129 (7-8): 375- 385.
9. Martinić I., Šporčić, M., 2005: Tranzicijski i inovacijski procesi u europskom šumarstvu – četiri područja mogućega prinosa strojarске struke. Strojarstvo, vol 47 (3-4): 109-119.
10. Šporčić, M., 2005: Establishment of the forestry contractor certification model. Glasnik za šumske pokuse, vol. 41: 1-50.

ANNEX - Sources

Forest Policy:

- Website of Ministry of Agriculture, Forestry and Water Management www.mps.hr

Forest-based Industry Policy:

http://www.mps.hr/pdf/zakoni/Strategija_razvoja_industrijske_prerade_drva_i_papira_NN_114_18_08_04.doc

Innovation Policy:

- Croatian Academy of Engineering www.hatz.hr
- Ministry of Science Education And Sport, www.mzos.hr
- http://ec.europa.eu/growthandjobs/pdf/nrp_2005_en.pdf
- EU Trend Chart on Innovation. Country reports (see <http://trendchart.cordis.lu/>)

Rural Development Policy:

- Website of Ministry of Agriculture, Forestry and Water Management www.mps.hr
- http://ec.europa.eu/agriculture/rur/countries/index_en.htm

Regional Development Policy:

- Website of Ministry of Sea, Tourism, Transport, Development
- [http://www.mmtpr.hr/UserDocsImages/CARDS_2002%20\(D\)/documents.html](http://www.mmtpr.hr/UserDocsImages/CARDS_2002%20(D)/documents.html)
- http://ec.europa.eu/regional_policy/atlas/index_en.htm
- http://ec.europa.eu/regional_policy/country/prordn/index_en.cfm

Sustainable Development Policy:

Links to National Sustainable Development Strategies:

- Croatia: http://www.mzopu.hr/doc/Mediterranean_str_28022006.pdf
- <http://www.mzopu.hr/default.aspx?ID=4248&Lang=Eng>
-