COST FP 1207: Orchestrating Forest-related Policy Analysis in Europe (ORCHESTRA)

SYNTHESIS REPORT OF WG1 COUNTRY REPORTS

Elaborated by Zuzana Dobšinská, Johann Rathke and Norbert Weber

Zvolen / Dresden, March 2015

IUFRO Occasional Paper No. 29
ISSN 1024-414X

IUFRO Headquarters, Vienna
November 2015

International Union of Forest Research Organizations
Union Internationale des Instituts de Recherche Forestière
Unión Internacional de Organizaciones de Investigación Forestal
Internationaler Verband Forstlicher Forschungsanstalten

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This report is based upon work from COST Action FP 1207, supported by COST (European Cooperation in Science and Technology)

COST (European Cooperation in Science and Technology) is a pan-European intergovernmental framework. Its mission is to enable break-through scientific and technological developments leading to new concepts and products and thereby contribute to strengthening Europe's research and innovation capacities. *www.cost.eu*

IUFRO Headquarters, Vienna, Austria, November 2015

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Occasional Paper No. 21 - Adaptations of Forests to Climate Change: A Multidisciplinary Review
Occasional Paper No. 22 - Policies and Instruments for the Adaptation of Forests and the Forest Sector to Impacts of Climate Change as Indicated in United Nations Framework Convention on Climate Change National Reports
Occasional Paper No. 23 - Forest Agencies' Early Adaptations to Climate Change
Occasional Paper No. 24 - Climate Change Impacts on African Forests and People
Occasional Paper No. 25 - Desafíos de los bosques amazónicos y oportunidades para el manejo forestal comunitario
Occasional Paper No. 26 - Forest governance scholarship for the real world: Building strategic insights through policy learning
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IUFRO World Series Vol. 9 -en	Terminology of Forest Management Planning - in English (revised in 2010)
IUFRO World Series Vol. 9 -ch	Terminology of Forest Management Planning - in Chinese
IUFRO World Series Vol. 9 -fr	Terminology of Forest Management Planning - in French
IUFRO World Series Vol. 9 -it	Terminology of Forest Management Planning - in Italian
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IUFRO World Series Vol. 11	Protection of World Forests from Insect Pests: Advances in Research
IUFRO World Series Vol. 12	Modelización del Crecimiento y la Evolución de Bosques
IUFRO World Series Vol. 13	Medición y Monitoreo de la Captura de Carbono en Ecosistemas Forestales. Available only on-line in Spanish.
IUFRO World Series Vol. 14	Forestry Serving Urbanised Societies
IUFRO World Series Vol. 15	Meeting the Challenge: Silvicultural Research in a Changing World
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IUFRO World Series Vol. 17	Forests in the Global Balance – Changing Paradigms
IUFRO World Series Vol. 18	Information Technology and the Forest Sector
IUFRO World Series Vol. 19	Global Forest Decimal Classification (GFDC)
IUFRO World Series Vol. 20-I	Keep Asia Green Volume I “Souteast Asia”
IUFRO World Series Vol. 20-II	Keep Asia Green Volume II „Northeast Asia“
IUFRO World Series Vol. 20-III	Keep Asia Green Volume III “South Asia”
IUFRO World Series Vol. 21	Sustainable Forest Management and Poverty Alleviation: Roles of Traditional Forest-related Knowledge
IUFRO World Series Vol. 22	Adaptation of Forests and People to Climate Change. A Global Assessment Report.
IUFRO World Series Vol. 23	Traditional Forest-Related Knowledge and Sustainable Forest Management in Africa: Conference Papers
IUFRO World Series Vol. 24	Asia and the Pacific Forest Health Workshop: Forest Health in a Changing World
IUFRO World Series Vol. 25	Forests and Society – Responding to Global Drivers of Change
IUFRO World Series Vol. 26	Forest Biodiversity, Traditional Forest Related Knowledge and Sustainable Forest Management in Eastern Europe, Northern and Central Asia
IUFRO World Series Vol. 27	Green Technology for Climate Change Adaptation and Mitigation Asia and the Pacific Forest Products Workshop in Sri Lanka 2009
IUFRO World Series Vol. 28	Embracing complexity: Meeting the challenges of international forest governance A global assessment report. Prepared by the Global Forest Expert Panel on the Inter national Forest Regime.
IUFRO World Series Vol. 29	Asia and the Pacific Symposium - Vulnerability Assessments to Natural and Anthropo genic Hazards
IUFRO World Series Vol. 30	Asia and the Pacific Workshop - Multinational and Transboundary Conservation of Valuable and Endangered Forest Tree Species
IUFRO World Series Vol. 31	Understanding Relationships between Biodiversity, Carbon, Forests and People: The Key to Achieving REDD+ Objectives. A Global Assessment Report. Prepared by the Global Forest Expert Panel on Biodiversity, Forest Management, and REDD+
IUFRO World Sereis Vol. 32	Forests under pressure: Local responses to global issues
IUFRO World Series Vol. 33	Forests, Trees and Landscapes for Food Security and Nutrition. A Global Assessment Report. Prepared by the Global Forest Expert Panel on Forests and Food Security

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Zvolen / Dresden, March 2015

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Introduction

Officially, forest policy is a matter of the EU member states. While there are joint activities on the pan-European level such as the FOREST EUROPE process and even a legally-binding agreement as one of the latest efforts, according to the treaties of Rome there is no common forest policy in the EU. Despite that fact, there are several sectoral policies, which are related to forests as ecosystem or as resource for diverse products and services.

Rather, country-specific forest-related policies are characterising the forest policy landscape in Europe. The present synthesis of country reports is a collection of several cases and examples showing the diversity of forest policies and current developments both in forest-related policy arenas as well as the forest-policy science community.

The synthesis report refers to 23 country reports and can be considered as comprehensive but not all-embracing. Instead, it is rather a broad overview on arbitrarily selected topics and current issues in the field of forest policy research in Europe. The report allows an insight into different examples in accordance to political processes as well as issues (e.g. NFP, biodiversity, climate change etc.). It also provides a broad overview about latest research projects and efforts.

The basis of the synthesis reports are single country-specific reports, which were elaborated by forest policy researchers from the respective countries investing a lot of time and diligence in their work. All countries involved are participating in the COST Action FP 1207 “Orchestrating forest-related policy analysis in Europe (ORCHESTRA)”. By including contributions from all geographic regions of Europe, a broad range of issues concerning forests and forestry are covered.

It is a special concern of the authors to consider this synthesis report as stimulation to a mutual exchange of ideas and information. Despite all methodological potentials of optimisation, this report allows a good foundation for further joint research activities.

1 Methodology

1.1 Country reports

The country reports, which are the basis for the elaboration of the synthesis, were produced by forest policy researchers in the respective countries and are available in form of completed questionnaires. Most of the questions were formulated as open questions to leave sufficient space in respect to the very complex and partly diverse policy arrangements. Despite considerable efforts in the analysis the responses allow an extraordinary wide view on the particular topics, although making no claim to be exhaustive.

The questionnaire consists of 28 questions divided into five parts, namely i) General information [question 01 – 05], ii) Forest-related policy research [questions 06 – 08], iii) Forest legislation and policy [questions 09 – 18], iv) Forest-related policy transposition [question 19 – 25] and v) Further aspects [questions 26 – 28]. The complete questionnaire can be found in ***Annex I***.

The questionnaire design is the result of mutual coordination between contributing forest-policy research organisations initiated by Professorship of Forest Policy and Forest Resource Economics, Technische Universität Dresden, Germany. After a few months of processing time to answer the questionnaire and several reminders an overall return rate of 82 % (which are 23 of 28 countries involved in COST Action FP 1207) could be achieved.

1.2 Data analysis and synthesis

The questionnaires were screened and essentially summarized to carefully depict the countries' activities in forest-policy research and the relevance of selected topics in the respective countries. Partially, the responses have been cited in the original wording. All the more, it is emphasised that the present synthesis principally cannot be regarded as comprehensive and exhaustive. It rather attempts to provide a state of the art description and general overview about forest policy research and forest-related policies in countries throughout Europe.

1.3 Participants of the study

The responding participants involved in the present study reflect a specific network of forest-related policy researchers. Respondents were not selected randomly. This fact is of great importance for the interpretation, especially of the illustration of the forest-related policy research landscape. Furthermore, the participants of the study are more or less involved in COST Action

FP 1207 and mostly represent research organisations incorporated into core forest-related research organisations (such as forest faculties or forest research organisations). Consequently, forest-related policy research activities by scholars from other disciplines are not necessarily considered in the present study. Therefore, this report primarily reflects the view of forest-related policy research organisations involved in COST Action FP 1207.

2 Forest-related policy research

2.1 Research organizations

The research organizations are listed as countries named them. Only organisations are presented that are active in forest policy research (cf. chapter 1.3). Alphabetic order of country names in English language was used. Only countries are encompassed that provided country reports.

Austria

University of Natural Resources and Life Sciences Vienna (BOKU)
Fachhochschule Salzburg- University of Applied Sciences
Federal Research Centre for Forests (BFW)
International Union of Forest Research Organisations (IUFRO -General Secretariat in Vienna)
Environment Agency Austria
IIASA

Bosnia and Herzegovina

Faculty of forestry, University of Sarajevo

Croatia

Faculty of Forestry, University of Zagreb
Croatian forest research institute

Czech Republic

Czech University of Life Sciences Prague, Faculty of Forestry and Wood Sciences, Department of Forestry Economics and Management http://www.fld.czu.cz/en/
Mendel University in Brno, Faculty of Forestry and Wood Technology, Department of Forest and Wood Products Economics and Policy http://www.mendelu.cz/en/?lang=en

Finland

Metla, http://www.metla.fi/tutkimus/tieteenalat/kansantaloudellinen-metsaekonomia-en.htm
University of Eastern Finland, see http://www.uef.fi/en/metsa/tutkimus
University of Helsinki, http://www.helsinki.fi/forestsciences/research/global_forest_sector.html

France

INRA (Laboratoire d'économie forestière), Irstea, CdC Recherche, FCBA

Germany

Academic research organisations in forest-related policy research

Georg-August-Universität Göttingen (esp. Chair of Forest and Nature Conservation Policy; http://www.uni-goettingen.de/en/67088.html)

Technische Universität München (esp. Chair of Forest and Environmental Policy; http://www.wup.wi.tum.de/index.php?id=5&L=1)

Albert-Ludwigs-Universität (esp. Chair of Forest- and Environmental Policy; https://www.ifp.uni-freiburg.de/FoPo-en-en)

Technische Universität Dresden (esp. Professorship of Forest Policy and Forest Resource Economics, http://www.forst.tu-dresden.de/fopores)

Thünen Institute (esp. Institute of International Forestry and Forest Economics; http://www.ti.bund.de/en/startseite/institutes/waldwirtschaft-und-forstoekonomie/staff.html)

Further German forest-related research organisations

Bavarian State Institute of Forestry

Forstliche Versuchs- und Forschungsanstalt Baden-Württemberg

Research Institute for Forest Ecology and Forestry Rhineland-Palatinate

Nordwestdeutsche Forstliche Versuchsanstalt

Landeskompetenzzentrum Forst Eberswalde

University of Applied Sciences and Arts Hildesheim, Holzminden, Göttingen

Eberswalde University for Sustainable Development

Hochschule Weihenstephan-Triesdorf University of Applied Science

University of Applied Forest Sciences Rottenburg

Fachhochschule Erfurt University of Applied Science

Greece

School of Forestry and Natural Environment, Faculty of Agriculture, Forestry and Natural Environment, Aristotle University of Thessaloniki

Department of Forestry and Management of the Environment and Natural Resources, Democritus University of Thrace, Orestiada

Institute of Mediterranean Forest Research Ecosystems and Forest Products Technology

Hellenic Agricultural Organization "Demeter", Athens

Forest Research Institute, Hellenic Agricultural Organization "Demeter", Thessaloniki

The Goulandrsi Natural History Museum. Greek Biotope/Wetland Centre. Thessaloniki

Department of Forestry and Natural Environment Management, School of Agricultural Technology, Technological Educational Institute of Kavala, Branch of Drama

Department of Forestry and Natural Environment Management, Technological Educational Institute of Lamia, Branch of Karpenisi

Faculty of Biology, National and Kapodistrian University of Athens, Athens

School of Biology, Faculty of Sciences, Aristotle University of Thessaloniki, Thessaloniki

Department of Biology, School of Natural Sciences, University of Patras, Patra

Department of Environmental and Natural Resources Management, School of Engineering, University of Patras, Patra

Mediterranean Agronomic Institute of Chania, Alsyllio Agrokepiou, PO Box 85, Chania, 73100, Crete

Ireland

University College of Dublin (UCD), School of Agricultural and Food Science

UCD School of Biology & Environmental Science

University College of Cork, Forest Ecology Research Group, School of Biological, and Earth & Environmental Sciences

Waterford Institute of Technology, The Forestry Research Group

University of Limerick, Department of Life Sciences

Teagasc, (the Irish Agricultural and Food Development Authority) conducts research in several aspects of agriculture and forestry, including involvement in forest-policy related work but is not an academic institution

Italy

National Institute of Agricultural Economics (INEA)

Institute for Environmental Protection and Research (ISPRA)

Institute for the agro-food market (ISMEA)

Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)

Agricultural Research Council (CRA)

Other private research center of forestry

Universities with forestry degrees

University of Padua;

University of Torin

University of Tuscia (Viterbo);

University of Basilicata;

University of Bari;

University of Molise;
University of Sassari;
University of Mediterraneo (Reggio Calabria);
University of Palermo;
National unit for scientific innovation on Forestry (UNIF)
Italian Academy of Forestry Science (AISF)
Observatory on national forests

Lithuania

Aleksandras Stulginskis University , Institute of Forestry
Lithuania Research Centre for Agriculture and Forestry
Lithuanian Forest Inventory and Management Institute
Kaunas Forestry and Environmental Engineering University of Applied Sciences
Mykolas Riomeris University (this university focuses on the sciences of economics, finance, management, policy, social technologies and are not related to forest policy research. Despite of this occasionally some forest-related policy researches is performed here as university interested in to policy sciences.

Norway

Norwegian University of Life Sciences (http://www.nmbu.no/en)
The Norwegian Forest and Landscape Institute (http://www.skogoglandskap.no/en)
Fridtjof Nansen Institute (http://www.fni.no/)
Statistics Norway (www.ssb.no/en)
Center for Rural Research (http://www.bygdeforskning.no/en

Poland

Instytut Badawczy Leśnictwa, IBL (Forest Research Institute), Sękocin Stary); active in the field of forest-related policy research
Szkoła Główna Gospodarstwa Wiejskiego w Warszawie, SGGW (Warsaw University of Life Sciences);
Uniwersytet Przyrodniczy w Poznaniu (Poznań University of Life Sciences)
Uniwersytet Rolniczy w Krakowie (University of Agriculture in Krakow)

Portugal

Departamento de Ciências Florestais e Arquitetura Paisagística, Universidade de Trás-os-Montes e Alto-Douro

Departamento de Economia, Faculdade de Economia e Gestão, Universidade Católica Portuguesa

Departamento de Engenharia Florestal, Instituto Superior de Agronomia, Universidade de Lisboa

Romania

University Stefan cel Mare of Suceava, Forestry Faculty – actively involved

University Transilvania Brasov, Facultatea de Silvicultura si Exploatari forestiere, few research in the field

CADI – Center for Institutional Analysis and Development - Eleutheria (CADI) - some specific research in the field

Serbia

University of Belgrade - Faculty of Forestry

Institute of Forestry, Belgrade

Institute of Lowland Forestry and Environment, Novi Sad

Slovakia

Technical University in Zvolen http://www.tuzvo.sk/en/

National Forest Centre, Zvolen http://www.nlcsk.sk/nlc_en.aspx

Slovak Academy of Science:

Institute of forest ecology http://www.savzv.sk/

Institute of landscape ecology http://uke.sav.sk

Slovenia

University of Ljubljana, Biotechnical Faculty, Department of Forestry and Renewable Forest Resources

Slovenia Forestry Institute

Spain

Forest Sciences Centre of Catalonia (CTFC)

Centre for Ecological Research and Forestry Applications (CREAF)

Instituto Nacional de Investigación y Tecnología Agrarias y Alimentária (INIA)

Instituto Pirenaico de Ecología

Instituto Forestal Europeo – Oficina Regional para el Mediterráneo

Centro Vasco del Cambio Climático (BC3)

Consejo Superior de Investigaciones Científicas (CSIC)

Universidad Politécnica de Madrid

Universidad de Santiago de Compostela
Universidad Politécnica de Valencia
Universidad Autónoma de Barcelona
Universidad de Barcelona
Universidad de Leon
Universidad de Valladolid
Universidad de Alcalá de Henares
Universidad de Castilla La Mancha
Universidad de La Laguna
Universidad de Oviedo
CEAM Fundación Centro de Estudios Ambientales del Mediterráneo
Universidad Complutense de Madrid
Universidad de Córdoba
Universidad del País Vasco
Universidad de Sevilla
Universidad de Alicante
Universidad de Extremadura
Centro de Formación y Experimentación Agroforestal de Lourizán
Universidad de Lleida
Agrifood Research and Tecnology Centre of Aragon (CITA)
Universidad de Granada

Sweden

The Swedish University of Agricultural Sciences (SLU), www.slu.se
The Forest Research Institute “Skogforsk”, www.skogforsk.se (though not prevalent academic)

Switzerland

ETH Zürich: Swiss Federal Institute of Technology in Zürich (www.ethz.ch)
BFH: Bern University of Applied Sciences (www.hafl.ch)
WSL: Swiss Federal Institute for Forest, Snow and Landscape Research (www.wsl.ch)
Forest related academic research organisations
EMPA: Swiss Federal Laboratories for Material Science and Technology (www.empa.ch)
EAWAG: Swiss Federal Institute of Aquatic Science and Technology (www.eawag.ch)
Agroscope (www.agroscope.admin.ch)
University of Basel (www.ub.unibas.ch)
University of Bern (www.unibe.ch)
University of Lucerne (www.unilu.ch)

University of Neuchâtel (www2.unine.ch)
University of Zurich (www.uzh.ch)
University of Fribourg (www.unifr.ch)
Paul Scherrer Institute (www.psi.ch)

Turkey

There are 9 forest faculties in Turkey currently active in forest research.
There are 12 Forestry Research Directorates, 3 of which are the research directorates of Poplar and Fast-growing Forest Trees, Forest Soils and Ecology, and Forest Tree Improvement that operate country-wide on subject base.

United Kingdom

Forest Research, Forestry Commission, Northern Research Station, Roslin, Midlothian EH25 9SY, UK
Scottish Forestry Trust, 59 George Street, Edinburgh, EH2 2JG, UK
Scottish School of Forestry, Inverness College, University of Highlands and Islands Viewhill, Inverness, IV2 5EA
Newton Rigg College, University of Cumbria at Newton Rigg College, Penrith CA11 0AH
Environmental Change Institute, School of Geography and the Environment, South Parks Road, Oxford, OX1 3QY, UK
Energy, Environment and Resources, Royal Institute of International Affairs, Chatham House, 10 St James's Square, London SW1Y 4LE, UK
University of Aberdeen, King's College, Aberdeen, AB24 3FX
University of Bangor, School of Environment, Deiniol Road, Bangor,Gwynedd, LL57 2UW

2.2 Forest-related policy research projects

Only those finished and currently running projects relevant to ORCHESTRA topic are listed and include more than one country involved (in alphabetical order).

ARANGE: Advanced multifunctional management of European mountain forests http://www.arange-project.eu/

Analysis of Pan-European Criteria and Indicators for Sustainable Forest Management

The study will analyse the state of the art of criteria and indicator (C&I) use in the context of the Forest Europe process. It shall provide a historical overview of the different developments of the

pan-European C&I for SFM at European, national and other sectors level; explore and give insights into the factors affecting the effectiveness of C&I for SFM at national and European level; review C&I with respect to conceptual validity, data availability , linkages to other indicators, and actual and potential challenges in implementation; reveal a sound discussion on general C&I structure and its logical framework; and provide options for the future development of C&I.

COOL project (COmpeting uses Of forest Land), comparing policies, management and stakeholder perceptions of forest-based bioenergy activities in Finland, Germany, Norway, Slovenia and Spain (http://www.cool-project.org)

COST Action FP 1201: Forest Land Ownership Changes in Europe (**FACESMAP**): Significance for Management And Policy: Forest ownership is changing across Europe. In some areas a growing number of so-called “new” forest owners hold only small parcels, have no agricultural or forestry knowledge and no capacities or interest to manage their forests, while in others new community and private owners are bringing fresh interest and new objectives to woodland management. This diversity and change creates implementation problems for forest-related policies including biodiversity conservation, timber and renewable energy supply, climate change mitigation, or recreation. The objectives of the proposed Action are: (1) To analyse attitudes and constraints of different forest owner types in Europe and the ongoing changes (outputs: literature survey, meta-analyses and maps). (2) To explore innovative management approaches for new forest owner types (outputs: case studies, critical assessment). (3) To study effective policy instruments with a comparative analysis approach (outputs: literature survey, case studies, policy analyses). (4) To draw conclusions and recommendations for forest-related policies, forest management practice, further education and future research. The interdisciplinary work will be done in close cooperation with relevant public and private stakeholders. A COST Action is suited for the strongly needed but still lacking comprehensive European overview and analyses. http://facesmap.boku.ac.at/

Cost Action FP1204 (Green Infrastructure approach: linking environmental with social aspects in studying and managing urban forests) http://www.cost.eu/domains_actions/fps/Actions/FP1204

COST E19: National Forest Programmes http://www.metla.fi/eu/cost/e19/

EFI ThinkForest Policy Study

The current institutional setup of European forest-related policies is a complex structure of organizations and processes working at different levels, such as sub-national, national, EU, Pan-European, and global levels. At each level, an increasing number of stakeholders are active. The

absence of a European legal framework makes such forest policy environment very fragmented, complex and sometimes contradictory. Forest policy development is then led by sectoral issues, but the increasing interdependencies, complexity and internal dynamics between and within sectors are creating considerable challenge for policy planning implementation and inter-sectoral coordination. Therefore, new policy approaches and institutional innovations are needed in order to enhance policy responsiveness, coherence, collaboration and result-based effectiveness. The project will (i) improve the understanding of policy makers on the current policy environment affecting European forests and the forest-based sector and, (ii) analyse new policy approaches and institutional innovations for improved forest policy cohesion and effectiveness in Europe. http://www.thinkforest.efi.int/portal/

EFORWOOD: developing a Tool for Sustainability Impact Assessment (ToSIA) - decision support systems http://www.innovawood.com/eforwood/

Evaluation of the implementation of the European Union Forest Action Plan

The EU Forest Action Plan, adopted in 2006, is to be evaluated at mid-term (2009). The overall aim of the EU Forest Action Plan is to support and enhance sustainable forest management and multifunctional role of forests. It provides a framework for the implementation of forest-related actions at Community and Member States level, and serves as an instrument of co-ordination between different Community actions as well as between Community actions and forest policies of the Member States. This project carries out the Forest Action Plan mid-term evaluation in accordance with the tender specifications (BOKU together with EFI, CTFC and the University of Hamburg).

EXIOPOL (EC FP6) – A new environmental accounting framework using externalities data and input-output tools for policy analysis (www.feem-project.net/exiopol/). Italy has been included in the analysis. TESAF Departement of the University of Padova was one of the partners of the project.

Ex-post Evaluation of the EU Forest Action Plan

The purpose and aims of the ex-post evaluation of the EU FAP will be to provide a review of the implementation, effectiveness and appropriateness of the EU Forest Action Plan, to analyse if the objectives of the EU Forest Action Plan have been met, if the Action Plan has led to any side effects, whether the instruments used are appropriate, relevant, effective and efficient and what was the role of the key actors, and to examine if the EU Forest Action Plan is the most suitable framework for forest related actions and instrument of coordination between the Community and

Member States. The study was commissioned by the European Commission to the European Forest Institute, and EFICEEC, a Regional Office of EFI at BOKU contributes to the work.

Further Development and Implementation of an EU-level Forest Monitoring System

A Life+ co-financed project that aims at the creation of a pan-European forest monitoring system which can serve as the basis for the provision of policy-related information on forests in the EU as required under international obligations and key action 8 of the Forest Action Plan (COM 2006 final). The FutMon project is co-ordinated by the Johann Heinrich von Thünen-Institute (vTI), Germany and involves 38 Institutions from 24 EU countries. Contact Persons: Maria Chatziioannou, General Directorate of Forest Resources Development, Protection of Forests and Natural Environment, Ministry of Environment, Energy & Climate Change; e-mail: xa31u061@minagric.grPanagiotis Michopoulos, Institute of Mediterranean Forest Research Ecosystems and Forest Products Technology; e-mail: mipa@fria.gr

GoFOR: New modes of governance of Sustainable Forest Management in Europe (GoFOR). FP6 Grant 6447GoFOR, http://www.boku.ac.at/GoFOR/

GoVOR: The adaptation of national forest policy systems in South-East European countries (Bosnia-Herzegovina, Croatia, Macedonia and Serbia) to new modes of international forest governance (GoVOR)

Project description: During the last two decades there was a shift from government to governance in South-East European (SEE) countries. Socio-political changes happened in a relatively short time. Most of those changes were and are driven by national key policy actors, and the formal political decisions to join EU integrative processes. Therefore, privatization, power redistribution, and involvement of the public into the decision making process are the most frequent processes, especially in the field of environmental protection, forestry and water management. In the same manner, the concept of forest governance has been introduced to professional and scientific discussions. In order to satisfy higher needs and expectations of the broader public, as well as of the international society, national forest systems have to adapt and implement new forest governance principles. Nevertheless, there is a lack of appropriate data, which make an assessment of implementation of forest governance principles quite difficult. Therefore, the aim of this project is to explore how state forest administrations in SEE countries (as the most powerful forest policy actors) understand the complexity of the forest governance concept and how it is implemented in all four countries. The project will assess the gaps between formal political commitments and real implementation. This will contribute to the assessment of national forest policy systems in SEE countries, and especially their capacities to adapt to new forest

governance. Furthermore, the results can be used by key policy actors to identify the obstacles and perspectives of reforms in the forest sector. Even more, the results of this research could point out how to re/formulate the official policies related to EU integrations, including those concerning the use of available accession funds.

Implementing Criteria and Indicators for Sustainable Forest Management in Europe – run by EFICENT-OEF http://www.eficent.efi.int/portal/projects/ci-sfm/

Innovation and Entrepreneurship in the Forest Sector in Europe
The project pursues the following objectives: (1) analysis of knowledge and information fluxes at forest managers as regards technological and procedural innovations; (2) determination of the innovation potential and existing institutional barriers of innovative and entrepreneurial behaviour; (3) elaboration of concepts and instruments for strengthening entrepreneurship and innovations in forestry; (4) further in-depth research on innovation and entrepreneurship and related policies in both forestry and the forestry-wood chain in order to enhance the sustainability of the forest sector and contribute to rural development.

INTEGRAL (Future-oriented integrated management of European forest landscape) – FP 7 – 2011 – 2015The main objective of the four-year project INTEGRAL is to bring the landscape dimension closer to Europe. At the same time, the project provides demand-driven information for European policy decision makers on the challenges in forest management in 20 regions throughout Europe. INTEGRAL provides solutions for: effective management strategies at the landscape level; decision support tools for future-oriented and integrated forest management; coherent EU policy instruments. http://www.integral-project.eu/

INTEGRATE – run by EFICENT-OEF. Is on nature protection in forestry, and there is a country report on their website. http://integrate-efi.org/

MEDLAND2020: Defining a common scheme for sustainable natural resources management in the Mediterranean http://www.medland2020.eu/

MOTIVE: Models for Adaptative Forest Management, FP7, Call ID: FP7- ENV.2008.6.2.1.6. Development of adaptive forest management models, Grant agreement no.: 226544, contract USV nr. 226544/22.05.2009, 1.05.2009- 30.04.2013, http://www.silvic.usv.ro/motive/index_en.php
The project evaluated climate change adaptation approaches for forests in Europe. A selection of forest models and simulations used, as well as stakeholder engagement work on adaptation measures. Publications are starting to emerge.

NEWFOREX: analysis of incentive policy instruments; analysis of forest owners' preferences and motivations regarding incentive policy instruments http://www.newforex.org/

OPERA: Operational Potential of Ecosystem Research Applications. The OPERAs research will establish whether, how and under what conditions the ES/NC concepts can move beyond the academic domain towards practical implementation in support of sustainable ecosystem management. OPERAs will use a meta-analysis (systematic review) of existing ES/NC practice to identify knowledge gaps and requirements for new policy options and instruments. New insights, and improved or novel tools and instruments, will be tested in practice in exemplar case studies in a range of socio-ecological systems across locales, sectors, scales and time. http://www.operas-project.eu/

Paws for Mediterranean Forests (Paws-Med)

Paws program was implemented within the framework of the EU program "Lifelong Learning Programme" of the action "Leonardo da Vinci Transfer of Innovation" (DE/09/LLP-LdV/TOI/147245). The participating countries were: Austria, Germany, Greece, Italy, Spain, Cyprus, Portugal and Slovenia. From Greece, the participants were: the General Directorate of Forest Resources Development, Protection of Forests and Natural Environment. Improved version of the program Paws was adapted to the Mediterranean reality (Paws-Med). The objective of the program Paws was to create an educational program, which would help foresters and other forestry personnel gain further qualifications in the field of Forestry Education. The general idea of the Paws program was to develop a common educational tool for all participating countries of northern and central Europe. The Paws-Med aimed to disseminate the knowledge gained from Paws program in the Mediterranean countries adapted to the particular conditions and requirements thereof. One of the most appropriate ways to re-define, enhance and restore the relationship between man and nature and to improve the attractiveness of forests and forestry is the Forest Education (Forest Pedagogy). At European level and especially in the Mediterranean countries, foresters are not adequately familiar with the basic pedagogical principles and concepts. http://www.paws-europe.org/

Policy and governance in European mountain forests

The objective of this study is to analyse EU policies and how these policies affect mountain forest management and the provision of multiple ecosystem services. This task will analyse different policy sectors (e.g. environment, agriculture, nature conservation, and energy), the corresponding policies and targets towards ecosystem services at EU and international level. Available policy databases from previous projects (e.g. EFORWOOD) will be screened for relevant policy

documents and complemented from primary sources. In addition, there will be a review of available land use change scenarios for EU27 with focus on their relevance for the case study regions, identifying main drivers of land use change in the case study regions and analysing their likely impact on the demand for and/or supply of ecosystem services from mountain forests.

RegioPower

This is an ERANET project involving 5 European countries and aiming at: a)develop and provide an instrument for moderating between interests of land-owners (resource production), investors (industrial demands), regional planners and citizens (regional economic development, provision of ecosystem services, other issues such as environmental protection), b) support an optimized regional resource allocation including resource distribution (who needs / provides resources) and logistic aspects (how to get resources from the producer to the consumer), c) generate and provide knowledge for an optimised land-use to make improved use of complementary regional potentials for the provision of lignocellulosic resources from forestry and agriculture. This includes also knowledge on the robustness of land-based resource and ecosystem services provision under Climate Change (CC) and the potential to contribute to the mitigation of CC driven risks. hwww.eli-web.com/RegioPower/index.php?article=home&lang=english

STARTREE: Multipurpose trees and non-wood forest products a challenge and opportunity: Decision support for forest management of NWFPs and ecosystem services. The ultimate goal of the STAR TREE project is to provide better understanding, knowledge, guidance and tools to support relevant stakeholders (e.g., forest owners, resource managers, enterprises, decision makers, other public and private entities) in optimising the management of multi-purpose trees and developing innovative approaches for increasing the marketability and profitability of non-wood forest products (NWFP) for a more competitive rural economy. http://star-tree.eu/

The adaptation of national forest policy systems in South-East European countries (Bosnia-Herzegovina, Croatia, Macedonia and Serbia) to new modes of international forest governance (GovoR)Project financed by: Finnish Ministry of Foreign Affairs (FOPER project)Project realized by: Chair for forest economics, policy and organisation; Faculty of Forestry, University of Sarajevo.Project coordinator: Prof.dr. Mersudin Avdibegoviće-mail address: mavdibegovic@gmail.comProject duration: 2010-2014

3 Forest Legislation and Policy

3.1 Organisational structure of state forest administration

To describe the organizational structure of state forest administration in all countries participating in the COST action is beyond the scope of this synthesis report. The following table 1 illustrates only the top-level (ministry or similar) organizations that are responsible for forestry issues.

Table 1 Ministries responsible for forestry issues (as of May 2014)

Country	Responsible Ministry
Austria	Ministry of Agriculture, Forest, Environment and Water Management
Bosnia and Herzegovina	Ministry of Foreign Trade and Economic Relations of Bosnia-Herzegovina (The Federal Ministry of Agriculture, Water Management and Forestry)
Croatia	Ministry of Agriculture
Czech Republic	Ministry of Agriculture
Finland	Ministry of Agriculture and Forestry
France	Ministry of Agriculture
Germany	Federal Ministry for Food, Agriculture and Consumer Protection
Greece	Ministry for the Environment, Energy and Climate Change
Ireland	Department of Agriculture, Food and the Marine
Italy	Ministry of agricultural, food and forestry policies
Lithuania	Ministry of Environment
Norway	Ministry of Agriculture and Food
Poland	Ministry of Environment
Portugal	Ministério da Agricultura, do Mar, do Ambiente e do Ordenamento do Território
Romania	Ministry of the Environment and Climate Change
Serbia	Ministry of Agriculture, Forestry and Water Management
Slovakia	Ministry of agriculture and rural development
Slovenia	Ministry of Agriculture and Environment
Spain	Ministry of Agriculture, Food and Environment
Sweden	Ministry for Rural Affairs
Switzerland	Federal Department of the Environment, Transport, Energy and Communications
Turkey	Ministry of Forest and Water Affairs
United Kingdom	Secretary of State for Food, Environment and Rural Affairs

Unitary countries as F, CZ, SK have a multi-level state forestry administration where the ministry is the top level organization and regional forest offices execute some powers that were designated to them by the forest act. Some country specific organization exists in Poland where there is one-level state forest administration. The State Forests Holding is supervised by the Minister of the Environment and private and communal forests are supervised by local authorities. In Ireland, in contrast to many other European countries, there is no significant decentralization of power, i.e. no regional authorities or responsibilities in relation to forest policy. Hence there is no real vertical distribution of authority. Forest policy at a local level is administered by Forest Service inspectors; there are 17 such inspectors situated in different parts of the country. Similarly there is limited horizontal distribution of authority. The Forest Service has the responsibility for all forestry related matters. However, it is legally required (under The European Communities (Forest Consent and Assessment) Regulations (Statutory Instrument No. 558 of 2010)) to consult a number of organisations on specific forestry-related activities, e.g. afforestation; reforestation via the forestry consent process.

Other groups of state are presented by federation or confederation states. The German forest sector is decisively characterised by the federal system. Consequently, the Länder (states) as the subnational level's entities play a very important role, esp. in forest management, legislation and policy. The Länder dominate forest legislation in Germany. While the Federal Forest Act (BWaldG) generally regulates aspects related to conservation, management, forestry associations, promotion and duty of disclosure, the Länder's forest acts provide detailed and authoritative regulations. In contrast, in Austria the formulation of legislation is in the competence of the central state whereas the provincial authorities are responsible for the execution of forest law. The provinces' governors have formally consulting functions.

In Bosnia-Herzegovina, two Entities (Federation of Bosnia-Herzegovina and Republic of Srpska) have jurisdiction over forest resources. Overall responsibilities related to international environmental issues at the State level are entrusted to the Ministry of Foreign Trade and Economic Relations of Bosnia-Herzegovina (MoFTER). The Federal Ministry of Agriculture, Water Management and Forestry is responsible for forests and forestry at the entity level. Cantons (10) hold a number of responsibilities for forests: cantonal forest offices, as administrative bodies of cantonal ministries responsible for forestry, are responsible for the observation, reporting and organization of firefighting and disease control, prevention and combat with illegal logging as well as for preparation and adoption of forest management plans for all private forests within the respective cantons. Cantonal Assembly of each canton has a mandate to establish single cantonal forest enterprise that is responsible for managing the State-owned forest at the territory of the respective canton.

In Italy as the result of the decentralisation process from central government to the local public authorities in the field of agriculture and forestry are transferred by the state to the Regions and autonomous provinces (21 regions with a different degree of autonomy). Today almost all Regions have a Forest law and a Forest rules. Institutional competences on forest management are developed from forestry offices included on Regional departments that can be of Agriculture or Environment. Nowadays, Regional Governments have the main objective of strengthen and enhance forest resources through a sustainable forest management.

In Spain forest and environmental competence are usually transferred to the regions. Forest Policy is largely a regional matter. State only has the formal legal competence for:

- Translating into Spanish law European directives
- Gathering and consolidating Spanish forest statistics
- Coordinating national inventories
- International representation
- Large multi-regions wildfires

The federal forest administration generally leads the formulation of national policies and the development of the federal forest act in Switzerland. The cantons have their own forest laws but they also have to implement and substantiate federal forest policies and laws at the cantonal level. The structure of the forest administration differs from canton to canton. Usually, several municipalities (regions) are organized in so-called “timber districts”. They have the task to put cantonal decisions and laws into practice, to control implementation and to offer consultation for forest owners.

In the UK the overall responsibility for the forest policy lies at ministerial level with the Secretary of State for Food, Environment and Rural Affairs, a Cabin-level position. Responsibility for forests lies with the Minister of State for Agriculture and Food, a non-Cabinet position who reports to the Secretary of State. Day to day responsibility for UK forests is not, however, a function of the Westminster government and lies with authorities in England, Wales, Scotland and Northern Ireland. In 1999 responsibility for many areas of public policy, including forestry was devolved to new administrations in Scotland and Wales. Power was devolved in 1999 to a Northern Ireland Assembly. However the Assembly was subsequently dissolved in 2003 due to complications in the Northern Ireland peace process. For forestry devolution is a driver of institutional change, with the result that the organisational structure of state forest administration is the aggregate of the forestry policies and processes evolving in each constituent country. In 2013, the work of the Forestry Commission in Wales was merged with the Country side Council for Wales, and the Welsh Environment Agency, to form Natural Resources Wales. Based in

Edinburgh, the Forestry Commission manages state forests in those countries on behalf of the UK government and the devolved administrations. In Northern Ireland the Forest Service has become an agency of the Department for Agriculture and Rural Development and is responsible for forestry policy. England, Scotland and Wales produce their own forest strategy.

3.2 Current forest policy issues

Table 2 presents the current forest policy issues. For the evaluation purposes issues were grouped as presented in the table. Only results are presented where more than 4 countries (out of 23) stated this as a present issue.

Table 2 Current forest policy issues identified by the respective countries

Issue	Countries	Total
Climate Change Mitigation and the Role of Forests	AT, FI, FR, GR, IR, SWE, SWI, TU, WA, SC, NO	11
Strategy Formulation	GE, RO, SR, SK, SP SWE, SWI, WA, GR	9
Biodiversity Conservation	FI, GE, FR, GR, TU, SCO, WA, CZ	8
Forestry administration organization	BH, HR, LI, SL, ENG, SCO, IT	7
Renewable Energy	FI, GE, IR, SP, SWE, SWI, SR	7
Wood Mobilization	FR, IR, SL, SWI, SR	5
Forest Fires Prevention	FR, SP, GR, PT, TU	5
Forest Biomass	AT, HR, GE, IR, SP	5
Private Forestry	LI, PL, PT, SR, BH	5
EU influence on domestic forest policy	BH, FI, LI, SR	4
Cross-sectoral conflicts	BH, LI, PL, SK	4
Illegal logging	BH, LI, RO, UK	4

Climate Change Mitigation (CCM)

CCM was the most discussed issues in forest policy according to 11 countries. Some countries only identified the issue without any clarification. Given answers are presented here. In Austria climate change adaptation and mitigation to and from forests are intensively discussed, but action is still missing. In Finland the environmental pressure due to climate change and need for biodiversity preservation is under discussion. France has adopted forecasting and adapting French forests to climate change as one of the 4 goals of governmental forest policy. In Greece the discussions between authorities, experts and stakeholders are numerous and climate change

has already been highlighted in research and implementation projects. It is also a key issue in the new National Rural Development Program. Turkey under the scheme of ICP-Forests; Level I and Level II plots are monitored via some damage parameters for FRA reporting process. In Wales the focus is on coping with climate change, and helping to reduce the carbon footprint.

Strategy Formulation

In many countries some kind of strategy either forestry focused (e.g. Germany) and/oror forestry-related (RDP in Slovakia, Biodiversity Strategy in Germany), is being formulated or discussed at this time. In Germany strategies on both national and subnational level (e.g. Forest Strategy 2020; Biodiversity Strategy) are being formulated. In Greece, the Ministry has introduced a process in order to develop a new National Forest Program as a sequence of the development of the National Rural Development Program. This process is participatory and is open not only to experts and stakeholders but also to general public as well through public online consultation. Moreover, as there is a new EU Forest Strategy, the Ministry intends to develop a National Forest Strategy. In Slovakia the new Rural Development Programme is being formulated, some meetings already took place. The aim of the forestry part is to maintain measures aiming at raising competitiveness of the forestry sector (machinery and new close to nature technologies), building forest roads and preventive measures (natural hazards). In Romania the national forest strategy (expired in 2010 already), the drafting of the national strategy for forest adaptation to climate change following the elaboration of the National strategy for climate change 2013-2020 and the modification of the regulation on selling timber (from standing to road-side) is ongoing. Serbia still does not have the NFP yet. Forest Development Program and action plan for NFP implementation are pending. Several bylaws defined by the Law on Forests have not been approved by responsible bodies. The revision of the 2010 forest law is an ongoing process and the new revision of the Forestry Development Strategy with an Action Plan is an important forest policy issue. Sweden has never really engaged into the process of elaborating a national forest programme, one of the reasons being that the Swedish policy system of commissioning entails stakeholder involvement, which is partly fulfilling the criteria of NFP. However, In June 2013, Cross-Party Committee on Environmental Objectives suggested an NFP as a vehicle to improve the attainment of the environmental goals and to increase dialogue. The Swedish Forest Agency has recently examined the relevance of NFP and concluded that basically an NFP would be needful. Most forestry stakeholders share this view and the political will for an NFP is clearly mounting. Thus, initiation of NFP could be considered to be the hottest policy issues in the present day.

Biodiversity Conservation

Most of the countries recognize the forest contribution to biodiversity and put biodiversity conservation into policy goals (SCO, FI, GE, GR, IRL, NO, TU, CZ, FR). For example: France classifies sustainable management of public and private forests and more effective preservation of biodiversity into its four main forest policy objectives. In Turkey, the GDF attaches great importance to the maintenance of forest biodiversity and intend to plan some 450.000 ha forests with principle management aim of the biodiversity conservation. Making a positive contribution to biodiversity, landscapes and heritage, and reducing other environmental pressures are one of the policy goals in Wales. In Czech Republic to increase the biodiversity in forest ecosystems, their integrity and ecological stability is one of the main forest policy goals stated in NFP.

Organization of Forestry Administration

This section comprises different issues regarding the state forestry administration. It encompasses changes in administration, state enterprise restructuring, decentralization etc.
In Bosnia-Herzegovina the forest sector is highly decentralized. Ambiguously defined vertical coordination among different levels of forest administration (Federal versus Cantonal level) leads to the overlapping of duties and responsibilities. Furthermore, quite cumbersome public forest administration at both levels (Federal and Cantonal) hinders forest sector to meet its full potential and to be adoptable to the changing political and economic environment. Apart from this, divergent and sometimes confronted political interests (including the national ones) at local, cantonal and federal level, make any efforts to improve organizational structure of forest sector very complicated. The best example is the slow progress in formulation of Federal Forest Program as potential strategic document in forest sector of the Federation of B-H.

In Croatia, the restructuring of the state forest management company – Hrvatske šume is going on. They have 95000 employees and up to 4000 seasonal workers, and there is a tendency of the central government to decrease these numbers and of course the forestry sector is opposing it. Another topic is the re-establishing the forest extension service. It was cancelled in 2012 and its authority passed to Hrvatske šume Ltd. According to the draft of the new Law on forests, it will be established again as a Directorate within the Ministry of agriculture. The same process is going on in Lithuania and Slovenia where the preparations are underway for a change in the management of state forests, which requires changes in legislation and new organization.
In Italy, some Regions have adopted Forest Landscape Management Plans (FLMPs), for which no clear legal requirements are provided at this time. These pans are currently being implemented both in the regional legislation and in the operational practice and they are not

acknowledged in the framework of a national law. FLMP is a kind of forest plan with an intermediate role between a national level plan and a forest unit management level. In Portugal forest policy implementation responsibilities of central or decentralized government authorities v. municipal authorities are problematic. Grey areas are leading to institutional conflicts; geographical inconsistency of policy implementation due to different decisions across municipalities. The status concerning forest policy eligibility of Forest Intervention Zones (Zonas de Intervenção Florestal – ZIF) is unclear. ZIFs are continuous forest areas owned by adherent forest owners for purposes of scale benefits; the main issue is to what extent these entities are eligible to which kind of forest policies.

Renewable energy

The role of forests and wood as a source of renewable energy resp. bioenergy seems to be under discussion in many countries (FI, SP, SWI, IR, SR). In Switzerland the use of windmills in forests is at discussion at the moment. In Ireland for example the Government's strategy for renewable energy 2012–2020 was issued in May 2012. The key objective was to make renewable energy an increasingly significant component of Ireland's energy supply by 2020, so that at a minimum the legally binding 2020 target is achieved in the most cost efficient manner for consumers. The role of forest-based biomass in meeting renewable heat and other targets remains a policy issue. A continuation of afforestation, at levels envisaged in the review (10,000 ha per annum rising to 15,000 ha per annum to achieve a forest cover of 18% from the current 11%,) are necessary to reach and maintain a sustainable level of supply of small round wood beyond 2020. In Spain the main focus lies in the opportunity of biomass mobilization for thermal energy and the parallel benefits in employment and reduction of fire risk.

Wood Mobilization

The mobilisations of the private timber resource, to get the timber from privately owned forest onto the market are problems in Ireland, Serbia and Slovenia where private forest owners cut about 70% of the allowable annual cut, which is perceived as a major problem in forestry. In France one of the policy objectives is to increase wood mobilization and improve the competitiveness of the wood sector. In Switzerland the use of domestic wood-resources is discussed. In 2014, the country has renewed and prolonged its resource policy for wood (*Ressourcenpolitik Holz*)

Forest Fires Prevention

This is the “hot” topic of high concern in Mediterranean countries (GR, SP, PT, TU, and FR). In Greece forest fires are common and they have become more common in the last five years. After the massive wild fire of 2007 in Peloponnese, lots of discussions were made and decisions were taken so that attention should be paid not only on restoration but also on precaution as well. This is being addressed by specialized projects (mainly by LIFE+ funds and national funds). It will also be essential for the new Rural Developement Regulation of the Common Agricultural Policy in Greece. Forest fires are recognized as the main hazard affecting the forest surface in Spain. Most of the forests in Turkey are highly sensitive to fire. Forest fire issues are the prime concern of the media and the public. Thus General Directorate on Forests allocates great amount of financial resources to forest fire management (forest fire prevention and combating organization).

Forest Biomass

Forest biomass can be used not only for energy purposes but also for material use. In Germany the energetic versus material use of biomass is one of the forest policy issues. In Austria the biomass use is conflictual between paper industry and forest owners associations. In Croatia the state enterprise wants to increase its utilization. In Ireland the replacement of fossil fuels by biomass from forests and other sources is among the policy goals.

Private Forestry

Private forestry organization seems to be still a problem in some countries. BH and Serbia have still not finished the restitution process, so the problems in private forestry organizations are natural. In BH despite of significant number of private forest owners, they are not organized in their interest associations yet. Inertia of private forest owners can be explained with small-scale private ownership pattern as well as specific socio-demographic characteristics of PFOs (elder people, living in rural areas, low educated and with low income). Together with traditionally predominant role of public forest administration, such unfavourable situation hinder active involvement of PFOs in forest-related decision making processes and makes mobilization of wood from private forests difficult. This all leads to the conclusion that private forest owners are institutionally marginalized while private forests are a neglected ownership type in the Federation of B-H. In Serbia due to the lack of organization of private forest owners and at the same time a large area of over 1 million hectares of privately owned forests the share of private forest owners

is negligible and their interests are usually affected by public administration. Due to the lack of organization of such a large number of private forest owners, their influence in the creation of forest policy for almost half of all forests in Serbia is negligible and the legislation concerning private forests can be characterized as overregulated by the state. The emergence of new private forest owners due to the process of restitution may play an important role in adapting forest policy to the real interests of forest owners.

In other countries the role of private forest owners in the sector is discussed. In Lithuania no clear (direct) strategy for private forest sector development in Lithuania exists which is perceived as a problem. In Poland, the private forest sector (owners) is poor developed. The role of forest (private) owners as actors in forest-policy processes is rather poor. Private forest property is small (about 1,5 ha on average) and forest owners are poorly organised. Few years ago Ministry of the Environment initiated the process of organising private forest owners associations. All 10 forest owners associations incorporate some 370 members and cover some 1.5 thousand hectares of forests (0.09% of private forest area).

Forest owners' associations (FAA) status concerning forest policy eligibility is an issue in Portugal. The state has practically given up of any role of technical extension and management advisement, so the question is whether the FAA should be given public funding to accomplish such roles?

EU influence on domestic forest policy

The EU influences domestic forest policy a lot, although there is not a common forest policy of the EU. Four countries (BH, FI, LI, and SR) stated that this is an issue in forest policy at present. When BH and SR as candidate countries for the EU accession face the problems with EU legislation transposition into domestic laws, member countries as LI and FI see problems in effects of globalisation and EU/international politics on the forest sector.

In Bosnia-Herzegovina the formal commitment to join the EU is the most determining factor of all policy processes in the country. These influences are evident through implementation of internationally recognized forest policy trends and initiatives and reform-oriented processes within forest sector by increasing the needs for improving cross-sectoral dialogue, better transparency and accountability and overall adaptation to the forest governance paradigm. Although Bosnia-Herzegovina is not a candidate country yet, the influence of EU forest-related policy is evident in several aspects. For example, as a reaction on EU Regulation No. 995/2010 (EUTR), representatives of the forest and wood-processing sector of Bosnia-Herzegovina

launched the discussion on developing country Action plan for implementation of EUTR provisions.

EU impact on the national forest policy is one of the most important forest policy processes in Serbia as well. The development of a forestry development strategy and a draft action plan for strategy implementation is an outcome of the EU integration process which included wide stakeholder participation. Serbia has started formal negotiations on EU accession and it can be expected that bringing of legal acts into conformity with EU regulations will be intensified. Forest related policy from EU such as Natura 2000, Rural Development, EU Regulation No. 995/2010 (EUTR), Renewable energy policy and other issues are ever more becoming the focus of the national forest policy agenda.

In Lithuania the “blind” adaptation of EU environmental protection requirements in Lithuanian forestry is being criticised.

Cross-sectoral conflicts

Cross-sectoral conflicts have been one of the most discussed problems that forestry has to face for a long time. Rather complicated constitutional and administrative framework of BH prevents achieving political consensus on some strategic documents such as sectoral strategies and policies at the state level. In case these strategic documents are formulated, it happens mainly with international institutions’ help and pressure. Besides, the implementation of these documents almost regularly fails. In such circumstances there is a room for several cross-sectoral conflicts. In most of the cases, these conflicts are over managing and governing of forest ecosystems. The most pronounced conflicts are those between public forest sector and privately-owned wood processing industry. Having in mind the fact that Bosnia-Herzegovina has quite low percentage of the territory that is formally protected (roughly 2%), the cross-sectoral conflicts between forestry and nature protection sector are also emphasised. Still, process of increasing the percentage of protected areas is rather slow due to the low capacity of the nature protection sectors at different administrative levels, lack of designated national agencies and absence of political interest for this issue which prevents the identification of new areas because of conflicting interests with other economic sectors such as agriculture, forestry, water management, mining, rural development etc. Economic development of Bosnia - Herzegovina has been relying on the abovementioned sectors causing the increasing pressure of the country`s development on the nature. In Lithuania there is an incoherence of goals and measures along the political-administrative hierarchies of forestry administration. In Poland forest resources face rising and

partly contrary demands of different users: public (for touristic and recreation purposes and nature conservation), environmentalists (for nature conservation), wood industry (for wood supply). In Slovakia the contradictions between the act on forests and nature conservation law are a current topic in forest policy. What is allowed by the forest law is sometimes forbidden by nature conservation law. These contradictions are subject to many conflicts within the decision-making competences of the state administration.

Illegal Logging

In some countries the illegal logging presents a problem (BH, LI, and RO). In BH some sporadic attempts, such as adoption of Action plan to combat illegal activities in forestry and wood-processing industry (2006), have been undertaken. What remains is the absence of joint activities of entire society for prevention and combat illegal activities. In Lithuania the still existing illegal logging and theft of forest products is a problem. Romania has been struggling with illegal loggings for a long time. At present the modification of the regulation on selling timber (from standing to road-side) from public forests is seen as a means to fight illegal logging. In the UK the participation in the Forest Governance Markets and Climate Initiative supporting FLEGT VPA countries in addressing illegal logging is one of the policy goals regarding UKs international forest policy interests.

Also some **country specific problems** were identified which are traditionally high on the forest policy agenda. In Ireland, the afforestation presents an important forest policy topic. As part of the current forest policy issues between forestry and climate change, is Ireland meeting its afforestation levels. Some of the issues have been attributed to availability of resources including the availability of suitable land for afforestation. Afforestation according to the report provides a wider range of mitigation opportunities, including carbon sequestration. In the UK, especially in England and Wales the woodlands are an important forest policy topic. In Portugal the specific problem is the continuous expansion of eucalyptus plantations, at the expense of the traditional stands of maritime pine.

3.3 Forest policy actors

In the questions 11-14 the role of various stakeholders as forest policy actors was addressed including forest owners, environmentalist, other NGOs and stakeholders, and the public.

3.3.1 Forest owners

Various studies were made about forest owners and their associations. It is beyond the scope of this paper to outline the structure of forest ownership in each country. Therefore only the role of FO and FOAs in the forest policy process is presented here. There is a whole COST Action on changing forest ownership in Europe (COST FP1201 FACESMAP) addressing the topic of forest owners.

The role of forest owners in the countries varies. It can be concluded that where the forest owners are organized and have some kind of umbrella organization or large membership base they have an impact on forest-policy processes and can influence policy making (AT, HR, CZ, FI, GE, GR, IT, LI, NO, PL, UK). In Greece for example forest owners as actors in forest policy processes share their opinions and experience with the Ministry of Environment, Energy and Climate Change and can contribute to forest policy processes through public online consultation. In Finland, Forest Management Associations are active in policy making.

In some countries state forest enterprises that manage forests in state property play also an important role in forest policy processes on national and regional level (FMP): CR, CZ, SK. In Romania, The association of private forest administration is an important forest policy actor.

In France, the position of representatives of private forest owners is quite ambiguous. On the one hand, they tend to be in favour of a more productive policy orientation, are strongly opposed to every kind of environmental regulation and stress the need for a proactive wood mobilization policy. On the other hand, they are opposed to every reform which could limit their ownership rights and reduce their freedom of action. Their influence over forest policy authorities suffers from this ambiguity. National federation of forest municipalities (FNCOFOR) is becoming more influential in the forest policy-making process through this partnership but most of its political resources still rely on the support of the parliamentarians. The latter periodically advocate for public service values in the management of municipal forests.

In Ireland, forest owners do not have a formal role in forest-policy development. Forest owners (both of public and private forests) are entitled to make submissions as individuals or through representative organisations (for example, the Irish Timber Growers' Association, Irish

Farmer's Association) when the Forest Service invites consultation on draft policies. However, forest owners contribute significantly to the implementation of government policy by supporting the expansion of the country's forest cover.

Due to various reasons like small size and scattered forest ownership (PT), institutional arrangements (BH, RO, SE, SWI, TU) the influence of forest owners on policy processes is low. For example, private forest owners are still not organized in association in the Federation of B-H. Therefore, their role in forest-policy processes can be estimated as very low or even marginal. In Romania little influence from the forest owners in national level processes, and no influence in the regional/local forest-related decisions exists. Several associations of the private forest owners are participating to all debates, meetings, discussions, etc., but their influence is only marginal due to the fact that the Romanian forest policy and legislative system does not allow differences in managing private forests/public forests, e.g. exactly the same regulation applies. In Switzerland, the influence of private forest-owners is not very pronounced in forest-policy processes. 2/3 of Swiss forest owners have an agricultural background and, therefore, the forest is not their main source of income. Forest owners are represented nationally by the Swiss Association of Forest Owners ("Waldwirtschaft Schweiz": WVS), however only half of the forest owners are aware that the WVS represents their interests in forest policy issues. Most of the private forest owners consider their forest as a non-profitable hobby which covers the private wood demand. In Turkey, almost all forests are owned by the state (99,9%). This ownership pattern is a result of the historical forest tenure system in the country. Therefore, forest policies are essentially aimed at the state forest institutions. Main concern of the public legal entities and private forest owners is to fulfil their regulatory responsibilities and they have not specific targets on their forests.

3.3.2 Environmental NGOs and and other stakeholders

The role of environmentalists as actors in forest-policy processes has mainly focussed on environmental protection, policy formulation, advocating and influencing forest-policy processes at the national and local level concerning environmental issues. For example, in BH the "professional" environmentalists (environmental researchers, public officials with Ministry of Environment, employees of several agencies dealing with environmental issues etc.) are very often critically oriented to day-to-day forest management activities conducted by public forest companies; their active role in forest-policy processes is mainly limited to examples referring to designation of protected areas within forest areas. In Ireland there are environmentalists who are working on the research sector and their outcome is sometimes taken into consideration nationally or regionally.

Environmental NGOs are also active actors in forest policy. They engaged in several policy processes as:

- Designation of Protected Areas – BH, CZ, GR
- NFP formulation – NO, FI, CZ,
- NATURA 2000 formulation and implementation – RO, SR, SK
- Forest Management Plans Formulation – SR, SK

When it comes to activity, the E-NGOs can be divided into two groups with sporadic or frequent activity. Sporadic means that they are only active when some of their specific interests are on the policy agenda. Frequent means that they play an active role and participate regularly in policy processes.

Sporadic – BH, CR, IR, LI, SR

Frequent – CZ, FI, GE, IT, PT, RO, SWE, SWI, TU, UK

Some examples are presented here. In Greece the main 10 NGOs contribute to almost all the open consultations for new laws or other issues. Their last significant contribution to forest policy was the objection to a draft law regarding the classification of forests and other wooded lands (2013). Therefore that draft law has been withdrawn. Moreover, the 10 NGOs develop and implement innovating projects whose results are affecting the national forest policy (locally, regionally or nationally).

In Germany, there is a broad involvement in political decision-making processes, for example with expertise reports by the German Advisory Council on the Environment (SRU) or participation of environmental groups as experts in the German Bundestag's Agriculture Committee (SRU 2012; see also the critical response of a group of forest scientists).

In Italy, the environmental associations have focused on two forest-related policies: climate change policy and Common Agricultural Policy (CAP). With regards to the CAP, the environmental associations call for the establishment of a sub-program in order to support organic farming, chains of the organic activities and bio-districts close to the Nature 2000 sites. Another priority action related to the CAP is a rural development through a low carbon economy.

In Sweden, the bulk of E-NGOs activities take place outside the formal cooperation. ENGOs frequently advocate environmental issues through public media and by arranging seminars or gatherings. Members of SSNC also conduct inventories of nature values in the landscape - SWE

In Turkey some of the 120 NGOs appear to possess the power of being influential to some extent over the public opinion as regards the forestry issues.

The E-NGOs operate either on national (table 3) or international level. The international E-NGOs mentioned with highest influence on national forest policy are WWF and Greenpeace in AT, GE, RO, SK, GR, LI, SP, SWE, UK and IUCN in Spain.

Table 3 Domestic E-NGOs influencing forest policy (selection)

Austria	*Naturschutzbund* (Nature Protection Organization) *Naturfreunde Österreich* (Nature Friends Austria, NFÖ) Umweltdachverband
Croatia	Sunce Split
Czech Republic	Hnutí duha
Germany	NABU, BUND
Greece	Hellenic Ornithological Society/Birdife Greece Arcturos and Callisto, Hellenic Society for Environment and Culture Greek Society for Nature Protection, Society for the Protection of Prespa
Lithuania	Lietuvos Gamtos Fondas (Lithuanian Fund for Nature) Lietuvos Žaliųjų Judėjimas (Lithuanian Green Movement) Lithuanian Ornithologists Society Gamtosauginių Projektų Vystymo Fondas Judėjimas “Už Gamtą”
Romania	Coalitia Natura 2000
Slovakia	SOS/Birdlife Agroekoforum DAPHNE - Institute of Applied Ecology WOLF Forest Protection Movement SWS – Slovak Widlife Society
Slovenia	Cipra, Morigenos Dinaricum **DOPPS - BirdLife Slovenia** DPPVN - Society for Bird Research and Nature Protection DOVES- Slovenian Society of Environmental Education
Spain	SEO-Birdlife
Sweden	Swedish Society for Nature Conservation (SSNC) Naturskyddsföreningen

In formal policy processes, stakeholder organisations are regularly invited to provide opinions and comments (NO, UK – ENG, SCO, WAL, SWE, IR, GR, SK).

In the UK, all three countries interact to a considerable extent with NGOs. Partnership has been a key delivery mechanism since the late 1990s. A great deal of the social forest policy is delivered with or through NGOs, who also conduct policy research and evaluations on behalf of the government bodies responsible for forestry (Forestry Commission England, Forestry Commission Scotland, and Natural Resources Wales).
Some specific stakeholders were identified, e.g. Bioenergy Association in Norway, dwellers in Turkey (Forest Village Development Cooperatives and Forest Cooperatives Union) and agricultural interest groups in Switzerland.

In Serbia NGOs have a small influence and are poorly represented in the forest policy process. They are highly dependent on international and governmental funding. At the same time they possess inadequate capacities to take an active role in the forest policy process. To a certain extent they play a role in the promotion, awareness raising, advocacy and research in field of sustainable use of forest resources, climate change and other related issues. Forestry development strategy supports the establishment and integration of NGOs into the forest policy process. They play an important role in the designation of protected areas and in some cases publicly criticize the forest management practice of state management companies.

Other NGOs and stakeholders active in forest policy processes can be aggregated into following groups with some examples in brackets. It needs to be stated that this is not a complete list of all relevant interest groups.

Interest Groups – NO, SK (*Slovak Forestry Chamber*), SW, PL, GR (*Hellenic Forestry Society*), FI, BH, CZ (*Czech Forestry Society*), CR (*Croatian forestry society*), AT (*Österreichische Alpenverein*), SL (*Chamber of Agriculture and Forestry*), TU (*We Claim Our Forests*)
Professional Organizations – TU (*Chamber of Forest Engineers and Foresters Association of Turkey*), SK (*Association of Forest Sector Employers*), SW (*Skogsentreprenörerna (SMF) Branch organisation of small forest enterprises, Federation of Swedish Forest Industries*), SL (*Cooperate Association*), GE (*Bund Deutscher Forstleute, Arbeitsgemeinschaft Naturgemäße Waldwirtschaft),* PL, GR (*Geotechnical Chamber of Greece*), FI, CZ (*Association of Wood Processing Business, Czech Association of Entrepreneurs in Forest Management, The Forest Nursery Association of the Czech Republic, Association of Taxation Offices*), CR (*Croatian Chamber of Forestry and Wood Technology Engineers, Croatian Employers` Association)*, AT (*Österreichischer Forst Verein*), FR (e.g. *UCFF, FNEDT, Union of nursery growers*)
Hunting Associations – NO, SK (*Slovak Hunting Chamber*, *Slovak Hunting Union*), SL (*Hunting Association*), PT (*Federation of Hunters' Associations*), LI (*Lithuanian Hunter and Fishermen*

Association), CZ (*Czech and Moravian Gamekeepers' Association*), AT (*Zentrallstelle Jagdverband*), SWE (*Swedish Association for Hunting and Wildlife Management*)

Wood Processing Industry Organizations – SK (*Association of Wood Processors of the Slovak Republic*), PL, FR (e.g. *FNB, COPACEL, UIPP*), CZ, BH, AT (*Fachverband der Holzindustrie Österreichs, Vereinigung der Österreichischen Papierindustrie, Austropapier*), LI (*Lietuvos mediena*)

Certification Associations – UK (*Forest Stewardship Council*), SK (*Forest Stewardship Council Association, Association of Forest Certification of Slovakia*), SWE (*FSC Sweden, PEFC Sweden*), CZ (*PEFC, FSC*)

Recreational (tourism) associations – NO, SW (*Friluftsfrämjandet*), AT (*Österreichische Touristenklub, Bundessparte Tourismus und Freizeitwirtschaft of the Wirtschaftskammer Österreich*)

Trade Unions – SK (*Trade Unions Timber-Forest-Water*), SW (*The Swedish union of forestry, wood and graphical workers*), GE (*IG BAU trade union, Deutscher Forstverein*), CZ (*Confederation of Forestry and Wood Unions of the Czech Republic*), LI (*Lithuanian Foresters Union*)

Nature Conservation – CZ (*Czech Union for Nature Conservation*), BH

Universities and Research Organizations – AT (*Universität für Bodenkultur*), SWE (*LRF Skogsägarna, Skogforsk, SLU*)

Associations of Women in Forestry – GE, SK

3.3.3 The Public

The role of the public according to the country reports can be divided into several forms:

1. **Limited or not important** (NO, AT, BH, CR, IT, LI, RO, SE, SL, TU). The overall perception is that the public plays a marginal role.

2. **Important** (CZ, FI, GE, GR, PL, SWI). In some countries the public interest lays in recreation (CZ, GE, SWI). In Finland public hearings are organized to support the work in the Forest Council. In France local political authorities have some forest and wood industry responsibilities. In Greece public online consultations using a specially created website giving the opportunity for participation in the consultations of draft laws and ministerial decisions. Through the website "Open Governance", citizens can be informed about the legislative initiatives of the Ministry of Environment, Energy and Climate Change and further participate in public consultation. In Poland, the National Forest Programme is transparent and open for the public. Public consultations are provided by the internet forum and chat.

3. **Possibly becoming more important** in Portugal because of (i) forest fire combat and prevention, and (ii) the licencing of eucalyptus plantations, in the sense that public discourse is likely to include favouring measures aiming at mitigating the forest fire problem and disfavouring the unlimited expansion of eucalyptus plantations.

4. **Formal** right stated in the Forest Act in the case of Forest Management Plans formulation (SK, SL). The public has the opportunity to participate in forest management planning by providing comments on the public display of forest management plans and public discussions.

5. **Obligatory participation** - according to the Swedish Environmental Code, public consultations are obligatory in cases of expected significant environmental impact. Within forestry, public consultations often concern the issues of rein deer herding and thus are more common in Northern Sweden.

6. **Some specific cases** (SK, SWE, UK). The public as an actor in Slovakia can participate in the intergovernmental comment procedure and raise comments on legislation or strategic policy documents. In 2013, when the forest act should have been amended, the Government wanted to restrict public access to forests which is granted by forest act as follows: to organise sport or touristic competitions and events or conduct commercial activities on forest land will be able only after the written agreement with the forest manager. After the disagreement of the public this amendment was not approved. Civic engagement occasionally leads to conflicts on a local scale in Sweden as well. A salient forest-related example is the Ojnare forest on the island of Gotland, where vivid local protests led to (temporary) abandonment of the plans to open a limestone quarry. All policy change goes out for public consultation in UK. Usually this just engages with relevant stakeholders but one clear example where the public had a major role, was the response to a consultation on plans announced in 2011 by the coalition government to privatise the public forest estate in England. The subsequent public consultation revealed widespread opposition to the plans. There was also a public campaign against the proposal that involved the newspaper Sunday Telegraph and the environmental group 38 Degrees. The coalition subsequently abandoned privatisation plans and an independent panel was subsequently established on options for the management of the UK public forest estate.

3.4 Selected topics and their relevance for forest policy

The results for all countries are presented in the table 4 and figure 1. Not every country report included specific relevance of the issues, but for evaluation purposes the scale was set according to the most common way of answering the question: high, medium, low or not relevant.

The topics were predefined by the authors of the synthesis template. Following topics were presented in the table: Sustainable management of wood resources, Adaption of forests to climate change, Forest health and vitality, Forest contribution to economic activity, Forest contribution to social welfare, Ecosystem services, Green economy, and Green infrastructure. Experts were asked to assess the relevance of the issues in their domestic forest policy. They could also add other topics under the category "further aspects". That is the reason why biodiversity conservation only has two answers.

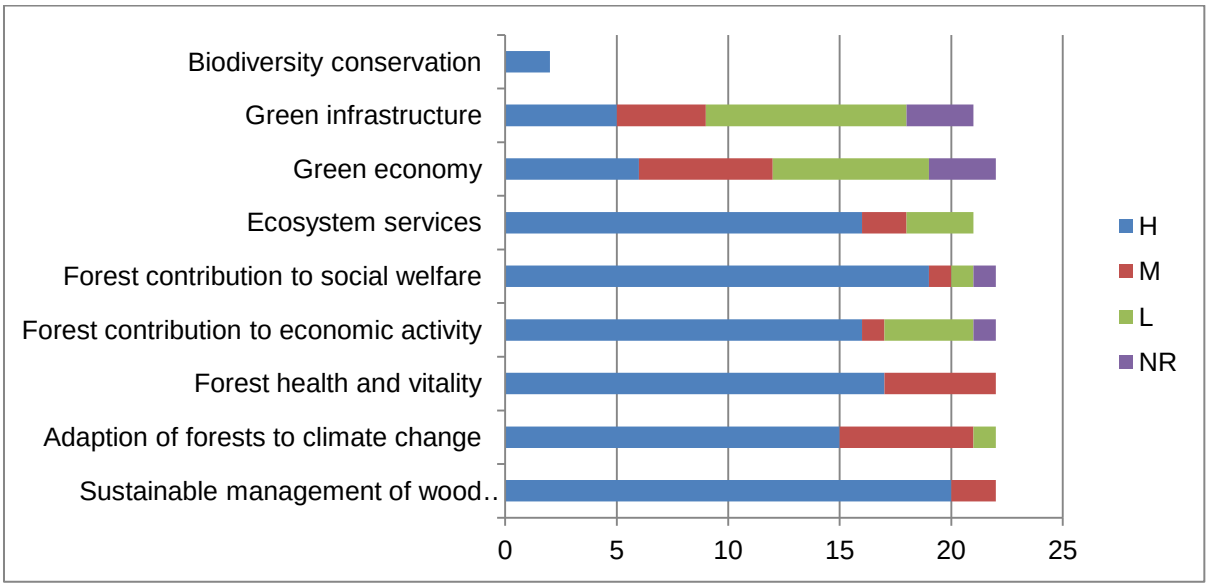

Figure 1: Relevance of selected topic on countries´ forest policy, summarized

Legend: H - high, M - medium, L - low relevance; NR - not relevant

Sustainable management of wood resources remains the most relevant topic for forest policy (20 countries), followed by forest contribution to social welfare (19). The following table 4 presents the answers in detail.

Sustainable management of wood resources is declared as priority in most of the countries. It is one of the goals of their domestic forest policy but also an international commitment.

In some countries, the issue of climate change mitigation is high on the policy agenda (NO, SWI, UK, TUR, SER, ESP, PT, IRL and in some countries not at all (HR). This topic is usually part of the National Forest Policy (SK, BiH, SWI, TUR, SER, SLO, PL, CZ, GER, FI). Only Sweden stated that it is being discussed but not high on the agenda yet.

Maintaining forest health and vitality is mainly incorporated into national forest policy (RO, SK, NO, BiH, HR, SWI, UK, TUR, SER, SLO, PL CZ Fi, UK, GER). Bark beetle and health condition of spruce forests are perceived as the main topics in RO and SK. HR and SK are involved in

monitoring activities. In Sweden, this topic does not belong to the top of forest policy agenda. In ESP and PT forest health and vitality is linked to climate change, especially to drought episodes and pests.

In countries where the contribution of forestry to the GDP is low, this issue is regarded as not so important (SK, HR, SWI, RO, LI), contrary to countries where forestry contributes to the economy by a great extent (BiH, NO, UK, TUR, SWE, ESP, PT, SER, CZ, PL, SLO, GER, GR, IRL, FI).

The role of forest in ensuring social welfare is highly recognized in almost all countries: AT, BiH, CZ, ESP, FI, GER, GR, HR, IRL, LIT, NO, Pl, PT, SER, SK, SLO, SWE, SWI, TUR, UK. Only for Romania this topic is not relevant.

It is recognized that forests provide a huge range of **ecosystem services** for society. However, the concept of ecosystem services seems to be of high relevance in research, in practise still the concept of forest function is used. The term as such has not yet permeated legislation or the policy debate in CZ, LIT, SK, and SWE. The concept is being discussed in many countries BiH, FI SK, NO, HR, ESP, PT, RO, SER, SLO, PL, GR, IRL, TUR, UK. The importance of this topic in forest policy varies. Many countries referred to forest functions when explaining the importance of ecosystem services.

The **green economy** concept varies a lot among the countries. Only AT, IRL, SLO and SWE stated that it is perceived as an important topic. In HR and TUR the term is used only very recently and some draft strategic documents are being formulated. CZ, ESP and GR forest policy regards this term as linked to economic activity. In the remaining countries the concept is less developed: BiH, FI, GER, LIT, RO, SER, SWI, UK.

Only few countries stated that **green economy** is a “hot” topic on the forest policy agenda. In the UK, green infrastructure is central to planning and environmental policy in all three countries, but is not explicitly part of forest policy. **Green Infrastructure** planning is being actively promoted by the Irish government. In Turkey the forest sector has been involved in developing “National Green Building Standards”. And in Germany the concept of the green infrastructure serves as a discursive concept for biodiversity (and forest area) conservation, yet it is much less frequently used here as compared to the EU policy level. In remaining countries it is not yet a forest policy issue: AT, BiH, CZ, ESP, FI, GRE, HR, LIT, NO, RO, SER, SK, SLO, SWE.

Table 4 Relevance of selected topics on countries´ forest policy, detailed by countries

	AT	BE	BH	BU	CR	CZ	DK	ES	FI	FR	GE	GR	IR	IT	LI	NL	NO	PL	PT	RO	SE	SVK	SL	SP	SW	SWI	TU	UK
Sustainable management of wood resources	H		H		H	H	M			NA	H	H	H	H	H		H	H	H	H	H	H	H	M	H	H	H	H
Adaption of forests to climate change	H		M		L	H	M			NA	H	H	H	H	H		H	H	H	H	H	M	M	M	M	H	H	H
Forest health and vitality	H		H		H	H	M			NA	H	H	H	H	H		H	H	H	M	H	H	M	M	M	H	H	H
Forest contribution to economic activity	H		H		L	H	H			NA	H	H	H	H	L		H	H	H	NR	H	L	M	H	H	L	H	H
Forest contribution to social welfare	H		H		H	L	H			NA	H	H	H	H	H		H	H	H	NR	H	H	H	H	M	H	H	H
Ecosystem services	H		H		?	L	H			NA	H	H	H	H	L		H	H	H	H	M	M	H	H	L	H	H	H
Green economy	H		L		L	L	M			NA	M	L	H	M	NR		H	H	H	NR	L	NR	H	M	L	L	M	M
Green infrastructure	H		L		NR	L	M			NA	M	L	H	NA	NR		L	H	H	NR	L	L	L	L	L	M	H	M
Biodiversity conservation											H									H								

Legend: H-high, M-medium, L-low, NR-not relevant, NA-no answer, Entries with an "?" -could not be assessed accurately according to the answer

3.5 International forest policy influence on domestic forest policy

The questions 16-19 were evaluated in combination. Here the impact of following international policy documents on domestic forest policy was asked to describe:

- United Nations Framework Convention on Climate Change (UNFCCC)
- Convention on Biological Diversity (CBD)
- United Nations Convention to Combat Desertification (UNCCD)

Table 5 Implementation of selected international commitments

Country	UNFCCC	CBD	UNCCD
Austria	xx	x	x
Belgium	x	x	x
Bosnia and Herzegovina	xx	xx	x
Bulgaria	x	x	x
Croatia	x	x	x
Czech Republic	xx	xx	x
Denmark	x	x	xx
Estonia	x	x	
Finland	xx	xx	x
France	xx	xx	x
Germany	xx	xx	x
Greece	xx	x	xx
Ireland	xx	xx	x
Italy	xx	xx	xx
Lithuania	x	x	x
Netherlands	x	x	x
Norway	xx	xx	x
Poland	xx	xx	xx
Portugal	xx	xx	xx
Romania	x	xx	xx
Serbia	x	xx	xx
Slovakia	xx	xx	x
Slovenia	xx	xx	x
Spain	xx	xx	xx
Sweden	xx	xx	x
Switzerland	xx	xx	x
Turkey	xx	xx	xx
United Kingdom	xx	xx	x

x-signatory, xx-implemented

Table 5 presents the overall involvement of countries in the international policy processes. It shows if the countries are parties to the conventions and if they have implemented the international commitments into national legislation.

3.5.1 United Nations Framework Convention on Climate Change

Climate change mitigation is an important topic and is reflected in many international and EU policy documents. At the EU level, French authorities have been engaged in work related to the White Paper on adaptation (2009) and to the EU Strategy on adaptation on climate change (2013) through the participation of the Ministry in charge of sustainable development in the Steering Group on Adaptation to Climate Change and through the contribution to the development of the Climate-ADAPT platform processes. Since the 1990s Italy has been one of the most active nations in promoting the climate protection policies, signing important international agreements and ratifying them in the National laws.

All countries are signatories to the convention. Industrialized countries (Annex I) have to report regularly on their climate change policies and measures, including issues governed by the Kyoto Protocol (for countries which have ratified it). They must also submit an annual inventory of their greenhouse gas emissions, including data for their base year (1990) and all the years since. Many countries stated that reporting process is done regularly (BH, CR, NO, SL, NO, SWI, TU, UK).

Although it is difficult to assess the impact of this convention separately from the EU legislation, it can be concluded that it has been incorporated into national legislation and has impact on forest policy. Regarding legislation, in the UK (Climate Change Act) and Bosnia-Herzegovina (Law on use of renewable energy sources and efficient cogeneration) thematic acts were enacted. In BH issues on forests adaptability on climate changes are at present elaborated in separate study within the Federal Forest Program. In some countries the CCM goals are integrated into existing national forest policy documents (CZ, FI, SK, SL, SP, NO, TU) or will be a part of future ones (PL, SR). Strategies or similar documents for adaptation to climate change exist in FR, GE (in the latter at Länder level as well), IT, PL, RO, SR, SK, and TU. In Spain and Switzerland regional action plans exist. In GR, PT and IT within the RDP specific measures regarding climate change adaptation and mitigation are present, in Italy also in the Regional RDPs. No direct impact on forest policy was identified in CR, LI, and NO.

Generally it can be said that Germany has not actively changed its management after adoption of these new regulations. Due to the age class structure of the German forest and harvest rates below the increment Germany's forests currently represent a sink for CO2. Accordingly there is no incentive to alter existing forest policies at the federal and at the state levels. An interesting policy instrument could be found in Germany, the so called Forest-Climate-Fund. In regard to climate change debates, the timber market was increasingly pushed into the foreground, because of the trade of CO2-emission certificates and the foundation of forest climate funds, e.g. the Climate Investment Fund (CIF) or the German Forest-Climate Fund, which was established by the Federal Government in 2011. The Forest-Climate Fund has the main aim to finance the adaption of forests to climate change. It should be established in 2013 with an annual sum of originally 35 million Euros down to 28 million Euros, under the joint direction of the Federal Agriculture Ministry (BMELV) and the Federal Environment Ministry (BMU). BMELV and BMU therefore regard it as a necessity to promote measures aimed at tapping the potential of forests and timber for CO2 reduction and energy generation as well as measures aimed at adapting German forests to climate change, and in this way to help the Federal Government achieve its climate goals. (BMELV 10.04.2012) But due to the collapse of the CO2 certificate market the Federal Government reduced the payments out of the Forest Climate Fund from 28 million down to 7 million Euro for 2013 (75 % reduction) (BDF 26.04.2013, Logmani and Giessen, forthcoming).

3.5.2 Convention on Biological Diversity

To counteract deforestation, degradation, fragmentation of the landscape and climate change, the "Convention on Biodiversity" (CBD) was adopted in Rio de Janeiro (1992) (CBD 2012). This Legally Binding Agreement (hard law) aims to implement restrictions for the protection of biodiversity. Also the EU is of high relevance when it comes to CBD. CBD has clearly influenced the development of an EU strategy on biological diversity, aimed at halting the loss of biological diversity (including forest biodiversity) by 2020. Therefore it was not easy for many countries to assess how the CBD influences domestic forest policy without taking into account European legislation as well. Most of the countries have implemented the principles of biodiversity conservation in their legislation or strategic documents. In Bosnia-Herzegovina as the only country is this work still in process and is rather slow. Accomplishment of the CBD standards leads to increasing of cross-sectoral conflicts over natural resources. In some countries no direct influences on forest policy were reported (AT, LI, CR, SWI, NO).

The implementation of CBD in countries can take various forms. The biodiversity conservation goals are part of national forest policy documents as National Forestry Framework

in Italy (IT) or NFP (CZ, PL, SK, TU). Many countries have adopted a National Strategy for Biodiversity or an equivalent (FR, GE, IT, PL, RO, SR, SK, SP, SWE, TU, UK). Biodiversity conservation also affects the forestry planning process (UK, IT, PL, SL), is a part of the NATURA 2000 implementation process (GR, RO, SL) and in Portugal reflected in the Rural Development Program PRODER.

3.5.3 United Nations Convention to Combat Desertification

UNCCD is the legally binding international agreement linking environment and development to sustainable land management. The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found. In the 10-Year Strategy of the UNCCD (2008-2018) that was adopted in 2007, Parties to the Convention further specified their goals: *"to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas in order to support poverty reduction and environmental sustainability"*. National action programmes (NAPs) are the key instruments to implement the Convention. This topic is relevant for countries that are identified as vulnerable to desertification. Following countries have elaborated the Action programmes: RO, GR, IT, PT, SP, TU. In Romania, the action plan exists but no direct impact on forest policy was identified. Other countries are only signatories without any further impact on domestic policy (AT, BH, CR, FI, FR, GE, IR, LI, NO, SK, SL, UK). Some countries as e.g. Sweden and Switzerland are active in providing development aid (SWE) or have project running concerning the convention (SWI). Some countries have some goals implemented in national forest policies (CZ, PL, and SR).

In Serbia, Forestry Development Strategy does not mention the Convention, because Serbia is not recognized as a country vulnerable to desertification. However, the Law on confirming the United Nations Convention to Combat Desertification took forests and forest land into consideration from several aspects. Although the existing forest policy documents are not under the impact of this convention directly, many objectives and measures are in line with the convention aspects. The support of afforestation, ban on decreasing of the forest area and management objectives related to maintaining healthy and vital forest ecosystems are some of the issues that are recognized by the national forest policy.

In Czech Republic basic principles stated by the convention are included in the implementation of the national forest-related policy as part of forest measures (e.g. forest and forest soil protection by means of the institute of land exemption from fulfilling forest functions – a permission granted by the public administration bodies or afforestation support is obligatory).

Fighting against desertification (in Polish conditions – against steppe formation) is one of the key issue of the “National Programme for Expanding of Forest Cover”, which was formally introduced in 1995. Selections of areas with preferences for afforestation within the programme are made based on a set of 12 criteria, one of which is “occurrence of a steppe formation process”. In the period 1995-2011, 261.6 thousand hectares of lands have been afforested under the programme.

In countries vulnerable to desertification (GR, IT, PT, SP, TU) the implementation into national forest policy takes various forms. The examples are listed below:

In Greece the implementation of the plan is co-ordinated by the National Committee to combat desertification. The National Action Plan for Combating Desertification (2001) sets as an objective to combat efficiently the desertification trends on 35% of the whole Greek territory that is under direct threat and to prevent the desertification process elsewhere. It furthermore includes a critical analysis and assessment of the factors and processes that control desertification pressures in Greece as well as general and sector-specific measures. In detail, indicative measures included in the NAPCD for the forestry sector encompass the following:

- National Forest Registry. The National Forest Registry is under way and is expected to be finalised by 2013. The Hellenic Constitution prohibits the conversion of forestland to other uses, however, forested areas, notably those close to Athens and in coastal areas, in some cases may be receiving pressure from building activities. Through the completion of the National Forest Registry (i.e. the identification of all forest areas, etc.), it is expected that public property will be safeguarded and forest fires by arson will be limited.
- Research related to desertification. Several research projects are funded by the Greek Government and executed by National Agricultural Research Foundation, NAGREF (Now it is known as Hellenic Agricultural Organization "Demeter") and the Universities of Thessaloniki and Thessaly (Forestry and Agricultural Departments). These research units have developed initiatives in the fields of public consultation procedures regarding sustainable management of forest ecosystems and natural renewable resources, protection of natural environment, etc.
- Forest management and protection. Regional Forest Services are in charge of managing forested areas, including ranger services, and of developing ad hoc management plans. These plans regulate tree cutting, grazing, hunting (on the basis of annual ministerial decisions), use of chemicals, collection of herbs and other plant species. Moreover, several programmes and actions to prevent degradation are implemented in regions where wildfires have adverse effects on the natural ecosystems.

Italian Government has established the *National Committee to combat desertification* coordinated by the Italian Ministry for the Environment, Land and Sea. One of its tasks is to follow

the implementation of the National Action Plan and the integration between the national and regional level. In Italy, the Regions and local Basin Authorities must identify the areas subjected to desertification risks and define the intervention to prevent and avoid the risk. Their strategy is aligned with the National one, being structured around four points: soil protection, sustainable management of water resources, impact reduction from productive activities, territory management. All these actions can be found and implemented in the existing sectorial planning instruments at a regional and interregional level (Basin plans, Rural Development Plans, Regional Operative Plans, Forestry Plans, Regional Forestry inventories, etc.).

As recognized by the UN Convention to Combat Desertification (UNCCD), forestry measures are important instruments to prevent and combat the desertification. The uncontrolled exploitation of forestry resources, in fact, are considered one of the causes of degradation processes that in some cases can lead to soil infertility. This indication is completely accepted by Italian national and regional forest policy. Italy and the other north Mediterranean countries formed a regional group in the UNCDD who aim is to implement common policy against the desertification inside the UE policies.

The Legislative Decree 227/2001 is the reference framework of forest policy in Italy and promotes the sustainable forest management. The Decree ascribes the task to define the rules on forest protection, conservation and valorisation to the Regions and defines also the relevant rules aiming to reduce the desertification risks on forestry areas. In particular:

- art.4: it is forbidden to change the destination use of soils (except some specific cases and under the condition to reforest the transformed area)
- art.5: Regions must guarantee the forest recovery in case of serious degradation processes.

In terms of sustainable forest management the Italian Ministry for the Environment, Land and Sea have issued the *Guidelines on forest planning* (Ministerial Decree of 16 June 2005) which strategic objectives to combat desertification are aligned with those of National Action Plan and can resume in few points:

- the needs to maintain the Italian forests in optimal structural and functional conditions, maintaining or restoring their conservation status and their renovation capacity (the conditions have to be controlled by appropriate monitoring programs)
- the drafting of Regional Forest Plans for the management and development of forest sector with the aim to reach the optimal management of forest ecosystems
- the need to make available in the regional web site the complete framework of regional and sub-regional forestry planning
- the forest inventory updating
- the use of Mediterranean species in the afforestation and reforestation activities

- the adoption of correct production systems in agricultural and livestock sector to avoid soil degradation problems and soil erosion
- the promotion of sustainable activities in the mountainous areas
- the forest fires fight and prevention

The forest fires prevention is another important action: it is a key element in the general strategy because the removing of vegetation, the 'clean' cuts, the invasive plants control, the biodiversity conservation etc., can increase the ecosystem resilience and adaptation to forest fires that is important in combatting the desertification. On average, in Italy 9,200 forest fires happen every year and 100,000 hectares of territory are damaged or destroyed (one half is composed by forests).

In Portugal PRODER (Rural Development Program) includes forestry-focused and forestry-related policy measures targeting at combating desertification. These measures are clustered within a sub-program called "Programa de Acção Nacional de Combate à Desertificação" (National action program to combat desertification).

In Spain two specific programs on desertification mitigation exist (Programa de Acción Nacional contra la Desertificación (PAND), Plan Nacional de Actuaciones Prioritarias en materia de restauración hidrológico-forestal, control de la erosión y defensa contra la desertificación).

Turkey has a number of programs and policies focusing on reducing desertification and implementing the convention on national level. Forest policy targets naturally attach great importance to the desertification and erosion control. For instance, a four-year National Afforestation and Erosion Control Mobilization Action Plan (2013-2017) was prepared in 2012. Afforestation, erosion control and forest rehabilitation works were done by different directorates of MoFWA between 2008 and 2012, which totalled about to 2.4 million ha of land. Turkey has also completed a national strategy document for combating desertification (2013-2023) in line with the Ten-Year Strategy of the UNCCD, and revising works of the national action plan continues. Desertification and erosion have been major challenges to the forestry sector. MoFWA has a specific general directorate for the combating desertification and erosion.

4 Forest-related policy transposition

Within the process of policy transposition, legal acts adopted on supranational and international level are transformed in national and subnational legislation (Knill & Tosun 2009). In this section the implementation of the EU political processes was evaluated including NFP, NATURA 2000, EU Timber Regulation, Forest Strategy, Forests Europe and EU Water Directive. The table 6 presents the overview of the implementation process in countries.

Table 6 Implementation of forest-related policy transposition

Country	NFP	NATURA 2000	EU Timber Regulation	EU Forestry Strategy	LBI on Forests in Europe	Water Framework Directive
Austria	Y	Y	Y	N	Y	partly
Bosnia and Herzegovina	N	N	Y	N	N	Y
Bulgaria						
Croatia	N	NY	Y	N	N	N
Czech Republic	Y	Y	N	N	N	Y
Finland	Y	Y	Y	Y	Y	Y
France	Y	Y				
Germany	Y	Y	Y	N	Y	Y
Greece	Y	Y	NY	Y	Y	Y
Ireland		Y	NY			Y
Italy	Y	Y	NY	Y	Y	Y
Lithuania	N	Y	NY	N	N	N
Norway	N	N	Y	N	Y	N
Poland	Y	Y	NY	Y	Y	Y
Romania	Y	Y	N	N	N	N
Serbia	N	NY	NY	N	N	Y
Slovakia	Y	Y	NY	Y	Y	Y
Slovenia	Y	Y	Y	Y	Y	Y
Spain	Y	Y		Y		
Sweden	N	Y	NY	N	Y	Y
Switzerland	Y	N	NY	N	Y	N
Turkey	Y	NY	NY	N	Y	Y
UK		Y	NY		Y	Y

N-no, Y-es, NY-not yet but in process

4.1 National Forest Programme

Much research has been conducted on National Forest Programmes. There was also a separate COST action (E 19) dedicated to this topic. Many countries have elaborated NFP in the past or still have valid NFPs at the moment: AT, CZ, FI, FR, GR, IT, PL, RO, SK, SL, SP, SWI, TU, and UK. Not all of them have implemented them though. For example, AT and SK have adopted Action Plans for the Implementation of NFP. Implementation was done also in GE and FI. In some countries the adoption was made but no steps for implementation were taken (CZ, FR, RO, SL, and TU) and NFP is only a formal document without any practical impact on forest policy. There are countries that have not adopted NFP (BH, CR, SE, SWE, NO), but some of them stated that the process is ongoing (PL, SE) or is likely to happen in near future (SWE). Some countries adopted strategic documents on forest policy but named them differently or left the NFP process at all, sometimes by returning to top-down procedures. Some examples: The Strategic Plan for the Development of the Forestry Sector in Ireland, National Forestry Development Programme in Lithuania, Waldpolitik 2020 in Switzerland and Waldstrategie 2020 in Germany.

4.2 NATURA 2000

21 years ago, a European ecological network was established for the protection of important natural habitat types and species within the European Union. The main objective of the network is to ensure the diversity of wild species and habitats as well as the contribution of sustainable development. The natural habitat types and species are listed in corresponding Annexes to the Habitat Directive and the Birds Directive, which forms the legal basis for NATURA 2000. In all EU member countries, NATURA 2000 was established as a legally binding instrument by the transposition into the national law. The transposition process into national legislation is finished in member countries. In Croatia the expert proposal of the Natura 2000 was made in December 2012 and presented in April 2013. However the national Ordinance on Natura 2000 is not made so far – so Croatia has breached the deadline of formally transposing Natura 2000 until the accession date due to dissent of land user groups. The implementation though is difficult in many countries. In BH, Serbia and Turkey as potential EU membership candidates the process is in the very beginning but some steps have been already made (monitoring, projects, etc.). Together with SWI they have established national emerald network of protected areas which is and initiative of the Council of Europe based on the Bern convention on the Conservation of European Wildlife and Natural Habitats. Norway and SWI as non-EU candidates are not obliged to create a NATURA 2000 network but consider conservation policy issues an important component of forest-policy.

The implementation process varies from country to country. The management requirements are stipulated by Art. 6 of the Habitats Directive, which requires that, within Natura 2000, Member States have to: a) Take appropriate conservation measures to maintain and restore the habitats and species for which the site has been designated to a favourable conservation status (Art. 6(1)); b) Avoid damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types (Art. 6(2)). The process of Nature 2000 implementation is not finished in many countries. Some examples from countries are presented.

In **Spain,** a huge share of the amount of the land is inside N2000 network. Some operational guidelines were developed but not proportioned. Financial support is available.

In **Finland**, conservation of Natura 2000 areas can be ensured by governmental legislation, by administrative orders or by voluntary agreements.

In **France**, Forests covered by Natura 2000 are not subject to binding rules concerning forestry, unless owners sign a contract with the state. Owners who sign a contract are eligible for exemption from the municipal portion of the tax on non-constructed land. Implementation of N2000 framework has been strongly contested by private forest owners. Now the topic is less controversial even if the Ministry of environment is still implementing the N2000 framework by using more binding tools, in accordance with the European commitments of the French state.

In **Germany**, the practical implementation is left to the 16 federal states (Länder). Recently, the (legal) need to establish management plans for forest N2000 sites has resulted in debates among conservation administrations, NGOs and forest owners (including the state forest services of the federal states) again. Currently all of the 16 German Länder are engaged in implementing management requirements. The management planning phase is also organized very differently in the Länder and shows varying progress. While some Länder as Saxony have nearly completed compiling management plans others as Brandenburg have less finished less than half. While all Länder decided to compile management plans for the designated SACs the organization and the process of compiling those plans differ widely. Furthermore, management plans differ with regard to their role in the implementation process (e.g. are they binding, how prescriptive are they, do they provide quantitative indicators, can they be enforced). Additionally, in many states the procedures of developing management plans were amended or fundamentally changed after original attempts turned out to be time consuming and cost intensive. Regarding the role of management plans a recent study concludes that the measures within the

administrative procedures and practical forest management are rather unfeasible without operational management parameters and reference to particular areas (Wippel et al, 2013, 24). Also the financing and funding of the necessary conservation measures is done within the German Länder according to different rules. Very often, landowners complain that the available funds are either insufficient or associated with great transaction costs and administrative burden. Finally, the process of implementing Natura 2000 is far from being concluded and is still showing a dynamic development.

In **Ireland**, one of the key protection measures is to ensure that the possible nature conservation implications on a Natura 2000 site of any plan or project is considered before a decision is taken to allow that plan or project to proceed (referred to as 'appropriate assessment' as described in Article 6 of the Habitats Directive). As part of new strategic action, is the development of procedures by DAFM for Approvals/Consents and Licences for afforestation, forest road construction and harvesting to ensure that all applications in and adjacent to Natura 2000 sites are subject to an appropriate assessment procedure.

In **Italy** at national scale there is no uniformity about impacts of Natura 2000 on forest management. There are huge differences on the Regional strategies: Some Regions have used specific law to define the compatibility of forest management with the standard Nature 2000 conservation, while other have introduced restriction in the use of forest resources due to the forest types, age, extension of the forest area interested from final cutting, etc. Recently, the Permanent Coordination Committee of PQSF, has produced a document "Forest management within the Nature 2000 sites" in order to standardize on a national scale forest management approach.

At the current stage the most significant issue for forest management is to incorporate Natura 2000 commitments (e.g. silvicultural recommendations, limits, special measures) into practice in **Poland**. For many areas the "plans for protective measures" or "protection plans" for Natura 2000 area missing (they are under development or are to be developed in the future) what causes numerous difficulties in everyday forest management. However, in areas where "plans for protective measures" or "protection plans" have been developed and their provisions are incorporated into forest management plans such difficulties and problems usually no longer exist.

In **Slovakia** in order to avoid implementation conflicts which resulted from different perception of the role of forest management plans required by forest law and "Plans for protective measures" required according to the Natura 2000 commitments a compromise was made. The FMP were renamed Plans for forest protection and contain both forestry measures and nature

conservation measures. This happened only in 2013, so further research is needed to assess the practical implementation.

In **Romania,** the issue now in Natura 2000 is the development and the implementation of the management plans. In 2012, only 5 of the already drafted 272 management plans were approved. This will require rectifying the limited administrative capacity to approve management plans (approximately 50% of protected natural areas are under the National Forest Administration Romsilva), fostering management practices that reconnect natural areas that have been artificially divided and form a functioning network, and restoring degraded natural areas. The second action requires determining how to most effectively ensure compliance with Natura 2000 with incentives, regulations, technical support, purchasing privately owned Natura 2000 sites or a combination of these. Use of compensation should be compared with the use of forest legislation to achieve Natura 2000 objectives (as is done elsewhere in Europe), and the possibility of using the funds to purchase private lands that are designated Natura 2000. Furthermore, the feasibility of compensation should be examined as EU regulations require a clear articulation of additionality to complying with Natura 2000 requirements to justify provision of compensation. If a compensation measure is put in place, it should involve a simple and straightforward mechanism for providing compensations. The funds should be accessible to all stakeholders groups, and the selection process must be inclusive (Behr et al., 2014). The main problem remains the lack of resources to approve and subsequently implement the Natura 2000 management plans.

In **Slovenia**, the Natura 2000 implementation (integration) of nature conservation guidelines is employed in forest management plans (through forest management planning) (Analiza…, 2013). This allows the forest management plans to be very important for all special areas (i.e. Natura 2000 areas) located in forests and forested land. As a consequence, the problem of coordination of possible special management plans with those existing forest management plans is avoided (Kuželički, 2010). Forest management planning is regulated by the Rules on forest management plans and game management plans (Ur.l.RS, št. 91/2010). The basic unit for planning is a forest-management unit (a traditional unit used in forestry). The preparation of the nature conservation guidelines for forest management plans of forest management units was conducted in accordance with the Operational programme. A total of 140 nature conservation guidelines were prepared, which covered 57.3% of the forests in Natura 2000 sites (Analiza..., 2013).

In **Sweden**, the landowner may be entitled to compensation from the state if hampered by protection measurements. For each Natura 2000 site, the Swedish board developed a conservation plan. These plans describe among other things what values are in each area,

potential threats, needed protection and conservation of habitats and species. The conservation plan is an important basis for the assessment of Natura 2000 sites both for government and for the landowner or forest managers. A permit is required to engage in activities or take measures that could significantly affect the environment in a Natura 2000 site. The rule also includes measures taken outside the Natura 2000 area if the environment is affected in a significant way.

A number of **UK** Special Areas of Conservation (SACs) come under the Natura 2000 network, although not all of these are forests, including wet heaths, dry heaths, meadowlands and bogs. The New Forest SAC (Hampshire) is one example of a forest habitat coming under Natura 2000. Key management issues of the New Forest SAC are as follows: The quality of the habitats of the New Forest, and the rich diversity of species which they support, is dependent upon the management activities of the various owners and occupiers. Of fundamental importance is the persistence of a pastoral economy based on the existence of Rights of Common. The commoners' stock, mainly cattle and ponies, roam freely over extensive areas of the New Forest, playing a vital role in keeping open habitats free of scrub and controlling the more aggressive species such as bracken (Pteridium aquilinum) and purple-moor grass (Molinia caerulea) ,and maintaining the richness and variety of heathland and wood pasture habitats. This is complemented by the annual heathland burning and cutting programmes which ensure that at any one time there is an extensive range of structurally diverse habitats available for plants and animals to utilise. The SAC Management plan was prepared in 2001. The UK government is obliged to take steps to avoid any significant pollution, disturbance or deterioration of the habitats on this site and through its Agencies works closely with owners and occupiers to conserve, enhance and maintain the special habitats. Another example is the Abernethy Forest Reserve, Scotland (managed by the Royal Society for the Protection of Birds).

The opposite example presents **Lithuania** where most of all NATURA 2000 territories in forest land area were implemented in already conserved areas. Therefore, it had no strong influence on forest performance even the implementation of NATURA 2000 territories had no impact on forest policy. Actually, private forest sector was not affected at all, but state forestry had been slightly influenced.

The main implementation problems lay in elaborating management plans for protected areas, owners´ dissent and financial compensations for management restrictions. Further research would be needed to better analyse the implementation problems and deficits in countries.

4.3 EU Timber Regulation

The timber regulation is implemented in the countries by relevant legislation. Either there is a special act on the implementation (CR - Law on application of EUTR related to illegal wood and wood based products, GE - Act on Trade of Illegally Harvested Timber) or other legislation was changed in order to comply with the regulation (forestry act, nature conservation, etc.). In BH representatives of forest and wood processing sectors of the Country have adopted Action plan on its implementation in February 2014. Still, full implementation of this Regulation is not fully institutionalised. The EU Timber regulation is incorporated in Norwegian forest policy from 2013. In Austria a national agency has been put in place (BFW) that is in charge of implementing the EUTR. In the most of the countries the implementation process has not started yet (RO), is still in progress and not finished (CZ, GR, IR, IT, LI, PL, SK, SR, SWE, SWI, TU, UK). In CZ and SK information campaigns started in order to make notion of the regulation in broader public. It is too early to further analyse the impacts, further research is needed.

4.4 EU Forestry Strategy (and EU Forest Strategy)

In September 2013 the Commission adopted a new EU Forest Strategy which responds to the new challenges facing forests and the forest sector. The 2013 Strategy provides a new framework in response to the increasing demands put on forests and to significant societal and political changes that have affected forests over the last 15 years. Some countries found it difficult to assess the implications for forest policy because of the short time period, but in general it is recognized as an important policy document with implications for national forest policies (FI, IT, GR, LI, PL, SK, SL, SP), with some having already implemented policy goals into national forest policy documents (PL, SK). Other countries stated not great impact of the Strategy on national policy (AT, BH, CR, CZ, GE, and NO) at the moment. In Sweden, when it comes to the process of the newly adopted EU forest strategy a representative from the Swedish Ministry of Rural Affairs stated that Sweden insists on the right to self-determination in formulation and implementation of our national forest policy and that no legal basis for a common EU forest policy has been transferred. She as well states that where joint European action is of value and a legal platform has been established by the legislators the Treaties' principles of subsidiarity and proportionality shall be considered to their full extent

Time is too early to estimate the importance of the instrument for national policy making, so further research is needed.

4.5 Legally Binding Agreement on Forests in Europe

As it is evident from the table, there are countries that state this process on drafting a pan-European forest convention is important and they are active in the drafting of the legally binding agreement on forests (AT, FI, IT, GE, GR, LI, NO, PL, SK, SL, SWE, SWEI, TU, UK). Some countries have already implemented some goals into national forest policy (e.g. SK, SL). This potential agreement is not broadly accepted in the national forest-related policy in BH, CR, CZ, and SR. As for now negotiations are still ongoing.

4.6 EU Water Framework Directive

The Water Framework Directive (WFD) is a key initiative aimed at improving water quality throughout the EU. It applies to rivers, lakes, groundwater, and coastal waters. The Directive requires an integrated approach to managing water quality on a river basin basis; with the aim of maintaining and improving water quality. The Directive requires that management plans be prepared on a river basin basis and specifies a structured approach to developing those plans. It requires that a programme of measures for improving water quality be brought into effect by 2012 at the latest. River Basin Management Plans are to be prepared and renewed in six year cycles and the first plans cover the period to 2015. The implementation of the WFD is implemented in most countries (SK, RO, LI, IR, GR, FI, CZ, CR, AT, UK), in some via water acts (SL, SE, PL, IT, GE (also on Länder level), BH) or/and in relevant legislation as forestry, nature conservation, etc. (SWE, SL, PL). In Slovakia there is a National Strategy of the WFD implementation.

The main issues to be addressed by Turkey in the WFD could be summarized as follows: creating a reliable inventory of water data; establishing a proper monitoring system; setting up pricing systems for all sectors taking into account the "full cost recovery" principle; institutionalizing participation of all interested parties in water management; delineating river basins, designing respective management plans and river basin organizations mandated to implement measures to reach the WFD's environmental objectives for all water bodies.

As Switzerland is not a member of the EU, it is not directly involved in the EWFD. However, it has it's own rather advanced water protection regulation which is also effective in and for forests.

4.7 Further relevant policy processes

In addition to the forementioned fields, decision-making on forests is influenced by further topics coming from the European level that have to be implemented on national and subnational level. In the following list only topics are enlisted when two ore more countries mentioned them in the country reports.

European Landscape Convention – SWI, IR, IT
Forest Certification – GR, CZ
Renewable Energy Policy – SL, PL, GR, IT
Rural Development Policy - IT, PT

5 Further aspects

5.1 Forest-related policies and forest-focused policies

Various definitions were given, but the overall understanding is that *forest-focused* policies focus on forests and have a direct impact on forests, forestry and forest management, where *forest-related* policies are primary designed for other sectors but have an influence on forestry (e.g. nature conservation, rural development, etc.). Some examples are given below.

5.1.1 Forest-focused policies

"The forest-focused policies are those policies specifically oriented in their vision and goals towards forest resources management and use; policies specifically designed for being implemented within the forest sector and/or by means of forest institutional organizations are also included in this category. If we extend the analysis to the whole forestry sector, policies oriented towards the improvement of timber/wood/non wood productions and markets have to be included."

"Forest-focused policies are the ones that solely dealt within the forestry sector. Forest sector organizations and institutions are mainly responsible for the implementation of forest-focused policies. While the term forest-related policies comprise forest-focused policies, it generally covers cross-sectoral issues that also affect the formulation or implementation of forest-focused policies."

"Forest focussed: Policies which regulate actors working in, using or otherwise benefitting from forests in a direct way, in order to influence their behaviour with the goal to alter their impact on forests. It is thus not restricted to forest legislation."

"Forest-focused policies address forests and forest management but strive to achieve policy goals stemming from other policy domains, such as rural development, nature conservation, renewable energy and climate policy."

"Forest-focused policy is a type of policy, including laws, directives, regulations and other types of legally-binding rules, that have their focus on forests and have a direct impact (e.g., require behavioural changes) on forests, forestry and forest management of public, private and

community forests. Examples include primarily national forest law, as well as national forest programs and other regulations."

5.1.2 Forest-related policies

"Forest related: Policies which do not regulate forests and related actors in a direct way but are nonetheless relevant for them. Agricultural policies which subsidises alpine farmers for taking care of alpine pastures affected by forest ingrowth or spatial planning might be examples where forests (or actors exploiting or otherwise using forest) are not directly the target of the regulation but are relevant for the behaviour of those actors and their impacts on the forest anyway."

"We should consider the forest-related policies those cross-sectoral policies with influence in the forest land management as biodiversity conservation, regulation of accessibility to forest land, tourism, energy, etc. and are generally promoted by public organism different from the unit of forestry in the general administration."

"Forest-related policies are policies mainly intended for other sectors which have a mitigation impact through the forestry sector (e.g. agriculture policy, rural development policy, environmental policy, climate change policy, energy policy etc.). However, the impact of forest-related policies on forest-focused policies is more and more pronounced."

"Forest-related policies search for achieving policy goals addressing issues in forest management but derive from sectors other than forestry (energy, climate, rural development sector)."

"Forest-related policies are understood as those that influence forests/forest management as a side-effect of their main focus, for example on climate change, biodiversity, energy, rural development, industry, etc."

5.2 Examples of case studies about forest policy

Several countries listed their country case studies from the project **INTEGRAL** (IR, LI, PT, SK, SWE). Other case studies have been elaborated in:

Bosnia and Herzegovina

Defining the Federal Forest Program where the leading idea was to create national forest policy and strategy. To achieve these targets, several principles were identified and a number of studies have been conducted.

Developing on national FSC standards where the leading idea was to create national-level principles and criteria of SFM. To achieve this, the national working group has been established and the first draft of the standards was developed.

Croatia

Evaluation of Forestry strategy and stakeholder analysis for the National forest programme of Croatia

Czech Republic

Assoc. prof. Pulkrab's methods concerning costs and yields based on forest type aggregates. As models the methods can have an impact on forest-related policy. They can be used in calculating losses, subventions.

The Botanical Institute of the Academy of Sciences has two models for the behaviour of Pinus strobus in the České Švýcarsko National Park.

Together with the CULS we are preparing the model of when and how it is the most effective time to eliminate the Pinus strobus (with the objective of its total removal), although it is not a project, it is a case of modelling in relation to forest-related policy (the elimination of the Pinus strobus is a forest-protection issue).

Finnland

The Forest 2000 Programme

https://helda.helsinki.fi/bitstream/handle/10138/15439/20-No%201_Forest.pdf?sequence=1

The Finnish National Forest Programme 2015

http://www.mmm.fi/attachments/metsat/kmo/5yGFtgJQ5/Finlands_National_Forest_Programme_2015_final.pdf

Germany

Christian Duschl (2001) used modelling methodology to develop a decision-support tool for forest management. The modelling builds on data from Germany's first National Forest Inventory (1986-1990) and the Data Inventory Forest (DSW), and draws on different disciplines (e.g. forest economics, forest policy, silviculture, soil science, forest work sciences). The modelling aims at provision of a comprehensive and realistic understanding of potential forest yield. It generates

valuable data for advisory systems and facilitates well-balanced assessment of trade-offs in multi-purpose forestry.
See: DUSCHL, C. (2001): Simulation forstbetrieblicher Sachverhalte auf der Basis gegenwärtiger Waldstrukturen, Forstliche Forschungsberichte München 181/2001, Technische Universität München und Bayerische Landesanstalt für Wald und Forstwirtschaft, 175 p.

The project “Forest Futures” (2008), involving members of the Institute for Forest and Environmental Policy at Freiburg University, created three scenarios for sustainable forest management in Germany. These differ, among others, in emphasis placed on conservation/protection areas, forest yield, regulations and policy, and market-orientation. The three scenarios provide the basis for development of forest policy recommendations. An important aspect of this project is its participatory research design.
See:
http://www.ioew.net/downloads/downloaddateien/Waldzukuenfte_Broschuere_Policy_Paper.pdf

The study “Timber Raw Material Balance Germany” of Udo Mantau (2012) provides mid-term projections for the various timber uses in industry and society and its origins based on data from 1987-2009, including global market trends and concern for energy policy. The study applies back-casting methodology. The study raised much interest by Germany’s timber industry, which contributed a significant share of the funding.
See: MANTAU, U. (2012): Holzrohstoffbilanz Deutschland, Entwicklungen und Szenarien des Holzaufkommens und der Holzverwendung 1987 bis 2015, Hamburg, 2012, 65 p.

Greece

CRETAPLANT: A Pilot Network of Plant Micro-Reserves in Western Crete" (LIFE04NAT_GR_000104) contributing to the protection of Western Crete's natural heritage, aims to constitute a useful tool and a practical guide towards an integrated and sustainable developmental planning (in the field of biodiversity conservation), both at regional and national level. The objective of the project was the creation of a Pilot Plant Micro-Reserves Network in Western Crete (Chania Prefecture).
http://cretaplant.biol.uoa.gr/en/project.html

Italy

STARTREE and EXIOPOL are partially using modelling for analysing alternative management and policy options. Nevertheless, they are using only one case study area in Italy as one of the research sites i.e. they are not focusing only on Italy and their outputs are expected to be of

general validity for all Europe rather than being explanatory and representatives of the overall Italian situation.

Lithuania

Forest resources simulating model KUPOLIS were created in the project performed in 1997-2000 by A Kuliešis and E Petrauskas. The use of the model is demonstrated in envisioning the Lithuanian forestry for the XXI century. Forest policy making increasingly draws on scenarios based on the simulation of forest resource dynamics. The simulation is utilised to evaluate regimes of stand treatments, reveal consequences of inadequate management, and define sustainable use alternatives.

A project performed in 2005 by Aleksandras Stulginskis University was named Revision of Long-Term (up to 2030) Prognosis of Forest Resources Utilization. In this scientific project, according forest management plans and data base of stand wise inventory the area of intermediate and final fellings also the amount of volume were prognosticated for three decades (2005-2014, 2015-2024, 2025-2034) by dominant tree species using model OPTINA in state and private forests. It was determined that the annual allowable cut will decrease in the future from 2.57 mil. m^3 to 2.25 mil. m^3 in state forests and will increase in private forests from 2.59 mil. m^3 to 2.84 mil. m^3. The results of the project revealed total annual allowable cut in three decades could be from 7 to 8 mil m^3 in Lithuania. The structure of sortments of prognosticated annual allowable cut was introduced. The leader of the project is R. Deltuvas.

Switzerland

An Economic Analysis of Swiss Wood Markets (Christian Kimmich, Roland Olschewski, WSL)
http://www.wsl.ch/fe/wisoz/projekte/holzmaerkte/index_EN

Mountland: Sustainable land-use practices in mountain regions. Integrative analysis of ecosystem dynamics under global change, socio-economic impacts and policy implications (Andreas Rigling et al., CCES, ETH domain)
http://www.wsl.ch/fe/walddynamik/projekte/mountland_home/index_EN
http://www.cces.ethz.ch/projects/sulu/MOUNTLAND

Governance of forest recreation (Jerylee Wilkes, Marco Pütz, WSL)
http://www.wsl.ch/fe/wisoz/gruppen/reo/projekte/reo_gofore/index_EN

United Kingdom

Motive FP7 project in north Wales examined the effect of low impact silvicultural systems, species diversification, and short rotation forestry as climate change adaptation measures to maintain forest resilience using ecosystem services indicators.

A similar study was conducted in south Scotland under the ForeStClim project at Craik forest to test climate change adaptation measures.

WP8 of Trees4Future FP7 project is developing an infrastructure for tree species and provenance modelling to help selection of material in Europe. Provenance choice is a policy issue in UK.

6 Conclusions

Country reports have been elaborated as a well-suited source of data in many previous COST actions. They are helpful to identify differences as well as similarities in identifying and solving selected problems in the participating countries. In the case of FP 1207 Orchestra, the challenge was to capture an enormous variety of policy *making* and policy *research* in multi-level systems when it comes to forests and forestry. The results of the synthesis report are based on the answers of 23 participating countries, covering all biogeographic regions of Europe and representing countries with a dominance of state ownership as well as those where most of the forests are in private hands.

One of the major intentions of the data collection was to gain an overview about main ***actors*** of forest policy. To start with *forest administration*, in most of the Ministries in Europe responsible for with forestry the name "forest" is not visible in the denomination. Many administrations dealing with agriculture, environment, land use, have forests as only one of their responsibilities. In several countries, decentralization and devolution are also apparently in the forest sector whilethe restructuring of state forest enterprises is still going on in some eastern European countries. The combination of these phenomena points to a structural transformation of the forest sector. Whether the missing term of "forest" or "forestry" in the name of ministries and other public agencies dealing with forest issues is an evidence for a loss of perceptibility of the forest sector or not, it can be an indicator for devolution processes of the state-governed forest sector towards a higher degree of "governance" and cross-sectoral approaches.

Apart from state actors, private forestry and further actors, many *NGOs* are involved in policy making on forests and forestry. Their activities occur either sporadic or frequently and are subject to different framework conditions for influencing forest policy processes in different countries. While in some of them their influence seems to be dominating, in others it is just marginal. It is also the role of the *public* that varies from a limited one to obligatory procedures of public participation and involvement, respectively. The reasons for these differences are not easy to identify, as for example in countries with large forest resources both marginal and important roles of the public are visible.

Generally speaking, the landscape of actors involved in forest policy formulation and implementation is as different as the geo-political landscape of Europe. Based on historically shaped distribution of forest land, either in the direction of state or private ownership, private ownerships associations are flourishing in countries with a high amount of private forests. However, an incresing influence of the supra-national level on forest policy formulation and implementation is visible and growing demands of non-forest owners (both state and private) towards specific ecosystem services of forest land, e.g. by environmental organisations, are

obvious. Although this information is not new, the report provides a “state of the art” with regard to these questions.

Asked about most actual ***issues*** in forest policy, the addressees of the survey put “climate change” on top, followed by strategy formulation and biodiversity conservation, and regional issues (e.g. fire in the Mediterranean area; illegal logging especially in Eastern Europe). Strategy formulation is an interesting aspect, as it might be regarded as an “equivalent” to failed NFPs (e.g. Germany) or an amendment to NFPs (e.g. Greece). A further phenomenon is the emergence of cross-sectoral policy issues. While “pure” afforestation fades out as a political issue, biomass and bioenergy are coming to the fore as motivations to establish new forest areas. Similarly, there is a shift of interest from wood production to green (or bio-based) economy. However, although estimated as major European and world-wide future challenge, wood mobilisation has not been mentioned as a major issue. This kind of incoherence and contradictions of goals and measures of different policy sectors (energy, environment, climate, resource...) might lead to further conflicts about the intensity and way of forest management.
In private forestry, the organization of small-scale ownership is still in the making, and the restitution process is not yet fully finished (BH, Serbia). With the exception of the concept of green infrastructure, the relevance of selected environmental, ecological and social topics for forest policy (table 4) has been estimated “medium” or even “high” by the magnitude of the correspondents. Most of the countries are also strongly involved in the implementation of international policy processes UNFCCC, CBD and, to a lesser extent, UNCCD (table 5). Legal activities of the European Union on domestic forest policy have different implications. While the “old” EU countries, even in the field of Natura2000, have learnt to adapt to the increasing influence of EU policies on forests by uploading their own approaches or “modified downloads”, accession candidates still have problems to come to terms with the acquis communautaire. Countries not belonging to the European Union are affected indirectly (table 6).

In an international and supra-national setting, ***forest-related policy transposition*** is a central issue. Due to strong vertical linkages of policy sectors such as nature conservation, climate change, economy and trade, forestry issues are visible on each level within the multi-level systems of Pan-Europe and the European Union. Even though, the mandates and responsibilities for forest-specific topics can be totally different from level to level and strongly depend on the respective integration in international settings, the specific form of government, and the nation states governance principles. Nevertheless, the report shows that all countries involved in the study are more or less integrated in a formal multi-level system. Although not so much in the focus of research as in the 1990s, processes of policy diffusion on horizontal level between countries and regions are still visible.

Forest policy research in the countries covered by the report is decisively connoted by current country-specific issues, problems and challenges. There are two types of forest policy research with regard to their focus. First, which is the majority of forest policy research in general and particularly noticed in Central and Eastern Europe, it serves the evaluation and optimisation of country-specific challenges such as forest ownership or forest legislation. Second, forest policy research brings the focus to process-oriented issues such as Europeanization or topic-oriented research such as climate change or green economy. In both cases, research is characterized by a transnational perspective, the disentanglement of the specific countries' policies and the enormous influence of EU processes. It is not surprising that this kind of research is mostly conducted by research networks, although also single research groups try to link their country-specific work with processes occurring in multi-level systems. This fact underlines the high relevance of implementation research, especially with the focus on forest-related policy transposition which could be considerably advanced by further activities of COST Action FP 1207.

Asked about the definitions for ***forest-focused*** and ***forest-related*** **policies**, scientists from the participating countries presented a variety of explanations for both of the terms. The lowest common denominator confirms previous conceptions, as forest-focused concentrates on the dominating actors from the forest sector while forest-related covers all influences on forests from other actors and policy domains. In recent decades, *forest-related policy research* has gained momentum. While classical, sector-oriented forest research stations on national and sub-national level are still existing, especially in those countries possessing abundant forest resources, the respective research is to an increasing extent conducted in agricultural or environmental research institutions. Besides, a concentration to larger entities on sub-national or national level occurs (e.g. Germany, recently also Finland). Research projects on forests are increasingly cross-sectoral, inter- and transdisciplinary, and internationally oriented. The implementation of international commitments, e.g. biodiversity, climate, combating deforestation, plays an increasing role in research. This is also true for monitoring, verification, assessment and forecasting (cf. EFI Think Forest), and product innovation. A further group of projects addresses issues of governance and ownership.

The list of *case-studies* recommended for further consideration by correspondents from several countries comprises a variety of approaches, ranging from a detailed analysis of national strategies, decision support tools and models, market projections to special issues like models how to deal with forest trees as invasive species.

In all, the contributions showed that, although there have been a lot of efforts to standardize criteria and indicators for sustainable forest management in the Pan-European process and on

European Union level, there is still a variety in definitions and conceptions about adequate policies for forests and forestry on the European continent.

Against the background of differing endowment with forests and political resources, policies on forests in Europe are formulated and implemented by an increasing multitude of actors, representing different perceptions of problems and solutions, and different stages of forest policy development. For these reasons, but also as a necessity to respect the principle of subsidiarity, it will not be easy to “orchestrate” these different approaches. Notwithstanding, there is an urgent need to improve co-ordination of different policies on forests to prevent contradictory and adverse effects of policy making. Further research is needed: FP 1207 started work at exactly the right time.

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