



**European Cooperation  
in the field of Scientific  
and Technical Research  
- COST -**

**Brussels, 21 November 2012**

**FP1207**

**MEMORANDUM OF UNDERSTANDING**

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Subject : Memorandum of Understanding for the implementation of a European Concerted Research Action designated as COST Action 1207: **Orchestrating forest-related policy analysis in Europe** (ORCHESTRA)

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Delegations will find attached the Memorandum of Understanding for COST Action as approved by the COST Committee of Senior Officials (CSO) at its 186th meeting on 20 – 21 November 2012.

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**MEMORANDUM OF UNDERSTANDING**  
**For the implementation of a European Concerted Research Action designated as**  
**COST Action FP1207**  
**ORCHESTRATING FOREST-RELATED POLICY ANALYSIS IN EUROPE**  
**(ORCHESTRA)**

The Parties to this Memorandum of Understanding, declaring their common intention to participate in the concerted Action referred to above and described in the technical Annex to the Memorandum, have reached the following understanding:

1. The Action will be carried out in accordance with the provisions of document COST 4154/11 “Rules and Procedures for Implementing COST Actions”, or in any new document amending or replacing it, the contents of which the Parties are fully aware of.
2. The main objective of the Action is to support the coherence of forest-related policy targets and the efficiency of policy measures by bringing together policy makers, quantitative modellers, economists, sociologists and policy scientists to develop the use of models for integrated policy analysis and support.
3. The economic dimension of the activities carried out under the Action has been estimated, on the basis of information available during the planning of the Action, at EUR 96 million in 2012 prices.
4. The Memorandum of Understanding will take effect on being accepted by at least five Parties.
5. The Memorandum of Understanding will remain in force for a period of 4 years, calculated from the date of the first meeting of the Management Committee, unless the duration of the Action is modified according to the provisions of Chapter V of the document referred to in Point 1 above.

**A. ABSTRACT AND KEYWORDS**

When preparing forest-related policies, the multilevel and multi-stakeholder governance make it challenging to foresee their economic, social and environmental impacts. To coordinate and streamline the development and implementation of forest-related policy targets and measures at different levels and sectors, new means for policy analyses should be developed. Based on the recent advances in sociology, policy science, economics, and quantitative modelling this COST Action aims: i) to analyse how different forest-related targets have been and could be implemented at supranational, national and sub-national level; ii) to enhance the use of models for integrated policy analysis; and iii) to develop new methodologies and related good practices for the orchestration of policy modelling and analyses. The COST framework will facilitate multinational, transdisciplinary collaboration between sociologists, policy scientists, economists and modellers as well as active interaction with various stakeholders. Especially in the context of Europe 2020, post-2013 Rural Development Policy and other relevant policies, the Action will support the coherence of policy targets and efficiency of policy measures. The generated new knowledge can be used by European policy and decision makers to adjust forest-related policies and their implementation to the requirements of multilevel and multi-stakeholder governance.

**A.2 Keywords:** forest-related policies, multilevel and multi-stakeholder governance, policy support, policy modelling, integrated policy analysis

**B. BACKGROUND****B.1 General background**

At the European Union (EU), there is no common forest policy such as Common Agricultural Policy (CAP) in agriculture. The formulation of forest policies is the competence of the Member States (MS) within the national framework of established ownership rights, laws, regulations, practices and interrelated sectoral policies. This is based on the principle of (vertical) subsidiarity, according to which the Union should not undertake action unless EU action is more effective than action taken at national or sub-national level. At EU level, MS collaborate in forest policy mainly through the EU Forest Strategy and related Forest Action Plan.

At the EU level, forest policy does not stand by itself, but is interconnected with a wide range of

policy strategies that are formulated in the Union. Among those strategies, Europe 2020, the European Union's growth strategy, aims as one of its five targets at greenhouse gas (GHG) emissions 20% (or even 30%, if the conditions are right) lower than in 1990, 20% of energy from renewables and 20% increase in energy efficiency. These targets are translated into national targets in each EU country, reflecting different situations and circumstances. The targets concerning GHG emissions, renewable energy and energy efficiency extend over several sectors, including the forest sector, and are thus reflected in several sectoral policies. There are linkages also with the trade and cooperation policy as well as the policy against illegal logging (especially FLEGT Action Plan and EUTR on "due diligence").

At national level, forest programmes can be important instruments for forest policy. They can also support the integration of EU principles and guidelines in the respective national political frameworks. The implementation of EU targets within the forest sector has to be balanced with multiple interests and functions of forests, taking into account other policies and initiatives arising from international negotiations and treaties (e.g. United Nations Conference on Environment and Development, United Nations Forum on Forests, United Nations Framework Convention on Climate Change, United Nations Convention to Combat Desertification, Convention on Biological Diversity, World Heritage Convention, Convention on International Trade in Endangered Species, Indigenous and Tribal Peoples Convention, International Tropical Timber Agreement, World Trade Agreement), non-legally binding instruments (e.g. certification schemes) and EU sectoral policies, for example in relation to rural development, the protection of biodiversity (e.g. the 2020 Biodiversity Strategy) and water resources (the Water Framework Directive) – to mention only a few.

As many European countries are hit by economic crisis and budgetary cuts, expectations for the EU incentives increase. Consequently, the second pillar of the EU's Common Agricultural Policy (CAP), Rural Development Policy (RDP), and its forestry measures are expected to play a more crucial role in supporting sustainable management of European forests and related carbon sinks (e.g. measures for afforestation to create new carbon sinks or other activities to expand existing sinks) as well as mobilizing wood for energy and wood-based products. Because of the importance of various ecosystem functions and territorial goods and services of forests for rural livelihoods and environment, RDP should explicitly consider the links between forests and climate change, forests and biodiversity (e.g. measures for Natura 2000 sites) as well as forests and water (e.g. measures to implement the Water Framework Directive).

Obviously, consistency and efficiency of forest-related policies is increasingly important. However, the complex interrelationships between different sectors and multiple levels make it challenging to foresee the economic, social and environmental impacts of the implementation policy targets and measures. Furthermore, the paradigm shift in governance towards a multi-stakeholder approach (horizontal subsidiarity) complicates the design of efficient policy measures. For example, actors in the private sector often pursue their own benefit and not that of society. Therefore they may perceive policy targets and measures from a different point of view than policy institutions.

A multinational, transdisciplinary network of sociologists, policy scientists, economists and quantitative modellers with a close connection to policy processes at different levels is required to incorporate the vertical and horizontal dimensions of forest-related policies in modelling and integrated policy analysis in regards of **three aspects**. First, there is a **need to analyse how different forest-related targets are implemented across national borders and sectors**. Second, national and European level capacities should be enhanced to apply quantitative models for integrated policy analysis. Third, new ways to orchestrate models and integrated policy analysis for the multilevel, multi-stakeholder policy support are necessary at supranational, national and sub-national levels.

For the implementation of the above objectives, the COST framework with its networking mechanism seems to be most appropriate. It will enable active collaboration with various stakeholders which will be expedient in improving the coherence of dealing with policy targets and related policy measures.

## **B.2 Current state of knowledge**

There are some international compilations of forest-related policies in different European countries (e.g. Forest Europe... 2011). Furthermore, the European Forest Institute (EFI) coordinates a project on how the criteria and indicators of sustainable forest management (SFM) have been implemented in different European countries (CI-SFM). At international level, the new paradigm in governance seems to be one of the biggest challenges for forest-related policies and their implementation (e.g. see the activities of the IUFRO Division 9 Forest Policy and Economics; Goldsmith & Eggers 2004, Pülzl & Treib 2007, Treib et al. 2007, Pülzl & Wydra 2011). However, there is not much research about how the multilevel, multi-stakeholder governance should and could be reflected by efficient policy measures.

For policy analyses, some forestry and forest sector models have been developed and used (see reviews by Nuutinen 2003, Toppinen & Kuuluvainen 2010). For example, EFISCEN (Schelhaas et al. 2007) and EFI-GTM (Kallio et al. 2004) have been applied for the European Forest Sector Outlook Studies (UNECE & FAO 2011). FASOM (Forest and Agriculture Sector Optimization Model), originally developed in U.S.A. (Adams et al. 1996), was adapted to EU conditions resulting in the model EUFASOM (Schneider et al. 2008) which has been used in several international and national studies related to land-use and climate change. The changes in land-use and climate are the main topics also in many EU 7<sup>th</sup> Framework Programme (FP7) projects such as INTEGRAL and ForEAdapt. For example RDP subsidies affect land-use dynamics but the impacts may vary between MS: in some countries RDP subsidies may encourage afforestation while in others discourage, depending on other policies and specific socio-economic conditions in general. The experiences from the use of integrated modelling and analysis frameworks show that there is a need for better synchronization of forestry and market models, in particular regarding assumptions on timber supply (Kärkkäinen et al. 2008, Eriksson et al. 2012) or land-use decisions (Borges et al. 2010).

In 2012, the European Commission (EC) launched a pilot project on the European Forestry Dynamics Model (EFDM) as a part of the e-Forest Framework contract between the Joint Research Centre (JRC) and the European National Forest Inventory Network (ENFIN). Compared to the existing models, EFDM aims to incorporate the subsidiarity principle in close collaboration with national experts. The national expertise in economics, sociology and policy science is utilized to derive the assumptions regarding the behaviour of forest owners. The assumptions are then incorporated into the forestry dynamics model for scenario analysis. The pilot study is carried out by five countries (Austria, Finland, France, Portugal, and Sweden). To upscale the model to the European level, there is a need for capacity building also in other European countries.

The integration of quantitative models into real policy processes requires careful orchestration and close collaboration with stakeholders involved with the processes. The significance of participatory processes when preparing national forest programmes was addressed by the COST Action E19 (e.g. Appelstrand 2002, Elsasser 2002, Glück & Humphreys 2002, Schanz 2002). The conclusion was that communication and integration at multiple levels (Hogl 2002) remained weak in practice. During the last ten years, the coordination between sectors (Dubé et al. 2007) and multiple levels of governance (Börzel 2002) has become even more important, both at national (Primmer & Kyllönen 2006, Elsasser 2007, Winkel & Sotirov 2011) and international (Pülzl & Rametsteiner 2002, Pülzl

& Lazdinis 2011) levels.

In summary, there are studies on governance, forest sector models and good practices in policy preparation. However, transdisciplinary collaboration between sociologists, policy scientists, economists and quantitative modellers has remained weak. Therefore the multilevel, multi-stakeholder governance and preferences of economic actors in the private sector (such as forest owners and industry) have not been fully captured in policy modelling and analyses. This Action aims to utilize a multinational, transdisciplinary network of scientists to address the consequences of the vertical and horizontal subsidiarity principle in terms of efficient policy measures, applicable tools and good practices for policy analyses and support.

### **B.3 Reasons for the Action**

As highlighted in previous sections, orchestration of forest-related policy modelling and integrated analysis requires contributions from inter- and trans-disciplinary research as well as close collaboration with stakeholders. Thus **the most important immediate benefit** is that the COST framework will **bring together stakeholders in industry, civil society, public authorities and policy making bodies with scientists from different disciplines enabling to combine rich, contextualized qualitative research with advanced quantitative modeling**. Based on the recent advances in sociology, policy science, economics and quantitative modelling, the COST Action will provide new methodologies and related good practices for the orchestration of policy formulation. In the longer run, this new knowledge will support European policy and decision makers in the adjustment of forest-related policies to the requirements of multilevel, multi-stakeholder governance.

### **B.4 Complementarity with other research programmes**

The current COST Action relates to and shares participants with several IUFRO, COST, EU Framework Programme (FP7) and other activities. They support or get benefits from the Action in the following way:

- IUFRO Division 9 Forest Policy and Economics provides state-of-art research on governance issues and gains from the joint evaluation of forest sector models;

- IUFRO Working Unit 4.02.07 Large-scale forest inventory and scenario modelling collects examples how forest scenario modelling has been used in forest policy making and regional land-use planning and gains from the promotion of the use of models;
- COST FP0804 Forest Management Decision Support Systems (FORSYS) compiles country reports and case studies on decision support systems and gains from the joint evaluation of forest sector models;
- COST FP1001 Improving Data and Information on the Potential Supply of Wood Resources - A European Approach from Multisource National Forest Inventories (USEWOOD) compiles country reports on national wood supply analyses and gains from the improved means to incorporate socio-economic factors into modelling;
- COST FP1201 Forest Land Ownership Changes in Europe: Significance for Management And Policy (FACESMAP) provides information on effective policy instruments for the land ownership change questions and gains from the means to study their impacts;
- COST IS0802 The Transformation of Global Environmental Governance: Risks and Opportunities (TGEG) provides information on the causes and consequences of the transformation of global environmental governance as well as on its effectiveness, legitimacy and robustness, and gains from the improved means to incorporate the knowledge into policy processes;
- The FP7 project INTEGRAL develops a new policy and management approaches for a better balance between multiple and conflicting demands for forest goods and services at the landscape level, and gains from the improved knowledge on the socio-economic factors;
- The FP7 project ForEAdapt Knowledge exchange between Europe and America on forest growth models and optimization for adaptive forestry develops adaptive forest management tools and gains from the improved knowledge on the new modes of governance;
- The EFICIENT project CI-SFM - Implementing Criteria and Indicators for Sustainable Forest Management in Europe evaluates the pan-European Criteria and Indicators (C&I) for Sustainable Forest Management (SFM) and gains from the improved knowledge on the role of multi-level, multi-stakeholder governance;



- A Romanian project Understanding human behaviour role with respect to forest management adaptation to climate change (HUBFORClimate) develops approaches to study stakeholder motivation factors and anticipate their behaviour;
- The high-level discussion and information-sharing forum ThinkForest run by EFI provides a channel to disseminate results from the Action;
- Global and regional (Europe, North-America and Russia) Forest Sector Outlook Studies provide a channel to disseminate results from the Action and gain from the improved modelling and analyses capacities;
- The e-Forest Framework project European Forestry Dynamics Model EFDM provides a model to foresee impacts of forest-related policies and gains from the improved modelling and analyses capacities.

The participants bring with them also experiences and insight from some earlier COST activities such as E19 on National forest programmes, E30 on Economic integration of urban consumers' demand and rural forestry production, E33 on Forests for Recreation and Nature Tourism (FORREC), E43 on Harmonisation of National Inventories in Europe, E45 on European forest externalities (EUROFOREX), E51 on Integrating Innovation and Development Policies for the Forest Sector, FP092 on Development and harmonisation of new operational research and assessment procedures for sustainable forest biomass supply, FP093 on Climate Change and Forest Mitigation and Adaptation in a Polluted Environment, FP0603 on Forest models for research and decision support in sustainable forest management and FP0703 on Expected Climate Change and Options for European Silviculture (ECHOES).

## **C. OBJECTIVES AND BENEFITS**

### **C.1 Aim**

The Action aims to support the coherence of forest-related policy targets and the efficiency of policy measures by considering together the many policies influencing forestry at EU and MS levels, and by bringing together policy makers, quantitative modellers, economists, sociologists and policy scientists to develop the use of models for integrated policy analysis and support.

### **C.2 Objectives**

The objectives include:

- 1) analysis of how different forest-related policy targets have been and could be implemented at supranational, national and sub-national level,
- 2) enhancement of the use of models for integrated policy analysis; and
- 3) co-design of new methodologies and related guidelines for the orchestration of policy modelling and analyses.

### **C.3 How networking within the Action will yield the objectives?**

The fulfilment of objectives is secured by the COST framework. The COST mechanism will facilitate multinational, transdisciplinary collaboration between policy scientists, sociologists, economists and quantitative modellers, as well as active interaction with various stakeholders, yielding the following objectives:

Objective 1 – analysis of forest-related policy targets and measures:

An international network of experts representing different fields of science and national experts from different countries representing varying socio-economic conditions will analyse the implementation of supranational, national and sub-national forest-related policy targets and report the findings in a state-of-art report (by the international team) and in country reports (by the national teams). Interaction with different Directorate Generals (DGs) such as Environment (ENV), Agriculture and Rural Development (Agri), Enterprise and Industry (ENTR) as well as international stakeholder groups e.g. Advisory Group on Forestry and Cork (AGFC), Advisory Committee on Community Policy regarding Forestry and Forest-based Industries (FBI Committee), Forest Technology Platform (FTP), and networks e.g. European Network for Rural Development (ENRD) or Partnership for European Environmental Research (PEER) and their national contact points as well as various national stakeholder groups (e.g. those that get together around NFPs) are utilized in the compilation of reports.

Objective 2 – enhancement of the use of forestry models for integrated policy analysis:

An international group of policy scientists and economists will carry out a literature review of

forestry (and forest sector) models and evaluate their applicability for integrated policy analyses. The insight from the analyses of policy targets and measures (objective 1) is used when outlining criteria for the evaluation. The evaluation process is then utilized as a basis for the development of training sets used for capacity building at different levels. International collaboration with JRC, EEA, EFI, FAO/UNECE, related IUFRO groups, COST Actions and similar expert networks is utilized in the review, evaluation, development of training sets and capacity building.

Objective 3 - co-design of new methodologies and related guidelines for the orchestration of forest-related policy modelling and analyses:

An international team of scientists and stakeholders will co-design methodologies and related guidelines for policy analyses and support. Collaboration with social science networks and active policy forums (e.g. EFI ThinkForest) is important in the process. Some capacity building activities (objective 2) are used to facilitate the co-design sessions.

#### **C.4 Potential impact of the Action**

The COST Action aims to propose guidance to improve coherence in the formulation of forest-related policy targets and related policy measures. The multinational network of experts makes it possible to deal with vertical subsidiarity. The transdisciplinary network of scientists helps to incorporate horizontal subsidiarity and governance issues, including the behaviour of economic actors in private sector (such as forest owners or industry), into policy analyses. Thus, the Cost Action will support scientific (state-of-art), technological (capacity building) and social (best practices) advances. Furthermore, the Action provides an advanced understanding of forest-related policy processes in a multilevel, multi-stakeholder governance system concerning international regimes (e.g. climate change, biodiversity) and their implementation in Europe including the EU. The beneficiaries include MS as well as European organizations, bodies and associations involved in forest-related policy processes.

#### **C.5 Target groups/end users**

Several target groups / end-users have been identified for each targeted result.

## Result 1 – the implementation of forest-related targets and measures:

- end-users such as EU bodies and related committees (e.g. European Parliament; the European Commission with its different DGs; the Council; AGFC, FBI Committee) and corresponding national bodies will benefit when designing measures to implement the supra-national or national policy targets;
- target groups such as organizations or associations participating in EU policy processes or policy processes at national level (e.g. forest owner organizations (public and private), forest-based industries, environmental NGOs, forest trade unions, traders and consumer groups) will benefit from the improved understanding of how different policy targets and measures affect and interact when applied in practice;
- MS can utilize the information when they negotiate their national targets within the EU;
- economic actors in the private sector (such as forest owners and industry) benefit from improved understanding of linkage between policies and governance;
- research institutions in the MS that can update their knowledge based on descriptive analysis of policies.

## Result 2 – stock-taking of models and capacity development in the use of models for forest-related policy analyses:

- target groups such as the EU policy institutions and national level bodies and actors when they need to foresee and quantitatively analyse the impacts of proposed policy targets and/or measures;
- end-users such as professionals, public officials and young scientists that benefit from new capacities;
- research institutions in the MS that can use the new knowledge to develop new and better models for policy analyses.

Result 3 – development of new methodologies and related guidelines for forest-related modelling and integrated policy analysis:

- target groups such as policy bodies, processes and stakeholders dealing with intersectoral policies can benefit from the new ways to incorporate quantitative impact analyses into the participatory process;
- research institutions in the MS that can utilize the new knowledge to improve science-policy interface.

The following end/user target groups participated in the preparation of this Action:

- ministries responsible for forestry matters (e.g. from Finland and France) and policy institutions at national (e.g. several governmental research institutes participating in the NFP preparation and negotiations on the EU level policy targets) and international level (EC – JRC; European bodies EEA and EFI);
- organizations, associations or networks participating in forest-related policy preparations at international (e.g. FAO/UNECE, FTP, AGFC, ENRD) or national level;
- research and academic institutions in the MS.

## **D. SCIENTIFIC PROGRAMME**

### **D.1 Scientific focus**

There are three scientific objectives that are linked with each other and build upon the interlinked research questions (e.g. answers in some of the questions related to objectives 1 and 2 will form the basis to answering some of the questions related to objective 3):

Objective 1 – new knowledge on the implementation of forest-related policy targets and related policy measures:

- What are the most important policy targets related to forests?

- How and to what extent have countries implemented forest-related policy targets in their national and sub-national policies and related forest programmes or strategies?
- How have economic actors in the private sector responded to the policy measures?
- How should and could the paradigm shift in governance be reflected by policy measures if cost-efficiency of measures (in terms of achievement of targets at minimum cost) is sought?

Objective 2 – improved understanding of and capacities in the use of forestry models for integrated policy analysis:

- What models exist for forest-related policy analyses at multiple levels?
- What is the applicability of these existing forest (sector) models for forest-related policy analyses?
- How should and could the models be used for forest-related policy analyses?
- How should and could the existing models be adapted for forest-related policy analyses?

Objective 3 – new methodologies and guidelines for forest-related modelling and policy analyses:

- What are the most important (existing and planned) international and national forest-related policy processes that should be orchestrated?
- What are the most effective means for a participatory and transdisciplinary co-design process involving scientists and stakeholders?
- What are the methodologies and related best practices including organizational aspects for the multilevel, multi-stakeholder orchestration of forest-related policies?

## **D.2 Scientific work plan methods and means**

The Cost Action will consist of the following tasks supporting the formulation of forest-related policies:

- 1) Analysis of forest-related policy targets and measures;
- 2) Enhancement of the use of forestry models for integrated policy analysis;
- 3) Orchestration of forest-related modelling and policy analyses.

#### Task 1. Analysis of forest-related policy targets and measures

The objective is to produce new knowledge on the implementation of forest-related policy targets and measures as well as their interactions in multilevel, multi-stakeholder governance. The research methodology will rely on qualitative techniques (e.g. meta-analysis, questionnaires, expert panels and interviews, workshops) applied within the policy and social science frameworks. Both functional (e.g. those related to the role of forests in the bio-economy, climate change mitigation, protection of biodiversity, rural development and related territorial goods and services) and nominal (e.g. new EU forest strategy, Forest Action Plan) forest-related policies will be analysed. Based on that analysis, targets can be identified. Furthermore, the analysis of measures used in the policy implementation at different levels and the evaluation of their performance is an integral part of task 1. The focus will be on both the EU and pan-European forest-related policy processes. To achieve the objectives of task 1, a workshop entitled “Policy targets and measures” will be conducted.

The results of task 1 will be compiled into a state-of-art report and related country reports. As an outcome of task 1, understanding of how policy targets are implemented increases and supports the integration of research findings into policy support. The work will also support the definition of requirements for policy modelling and for analysis tools (see Task 2).

#### Task 2. Enhancement of the use of forestry models for integrated policy analysis

The objective is to analyse the potential of policy models in forestry and thus help to improve capacities in the use of models for integrated policy analysis. The objective will be supported by a review and evaluation of different modelling and analysis tools. A special focus will be on the information provided by different types of models at different scales. For example, the role of models, the modelling technology, the environmental and socio-economic data needs, the availability of data, and the data processing and storing capacity will be used as evaluation criteria. The benefits and limitations of the resulting outputs will be addressed. In addition, the capabilities

of models to address the uncertainties of results will also be investigated and assessed. New knowledge will be produced on the capabilities of models to deal with the vertical and horizontal subsidiarity principle both at the national (bottom-up) and international/EU (top-down) levels of analyses. The knowledge from existing large scale modelling efforts worldwide as well as material assembled on forest management tools (see e.g. COST Actions FP0603, FORSYS and USEWOOD) will be utilized. For the evaluation, case studies will be designed and implemented. The results will be reported in a state-of-art report and in case study reports which will then be utilized as a training set for capacity building (e.g. in the Workshop on forest sector models and facilitation of co-design).

### Task 3. Orchestration of forest-related modelling and policy analyses

The objective is to co-design methodologies and related best practices for orchestration of cross-sectoral and cross-border forest-related modelling and policy analyses. The processes/forums to be used for case studies, both at the European and national levels, will be selected. For the selection, a survey of existing processes/forums will be made. For example, within EU, balancing the various ecosystem functions and services of forests has to be taken into account in the Rural Development Policy (RDP), the EU Forestry Strategy and the EU Forest Action Plan, as well as in the communication to forest-based industries. In addition to legislative bodies such as the EU Commission and Council, many other organizations and bodies are involved in the forest-related policy processes e.g. Different DGs, the EC's Joint Research Centre (JRC), and European Environment Agency (EEA) with its EIONET. The Standing Forestry Committee (SFC) acts as a forum for MS to discuss forest-related policies. The European Commission has also established AGFC to act as a communication link to stakeholders when e.g. RDP forestry measures are designed. A similar group, the FBI Committee, was established to deal with matters of interest to the forestry sector and the woodworking, pulp and paper, printing and publishing industries. Furthermore, there are networks of networks e.g. FTP with its national support groups (NSGs); ENRD linked with MS Rural Development Programmes and PEER, as well as informal forums aiming to support forest-related policies e.g. European Forest Institute (EFI) with its ThinkForest or UNECE/FAO with its Outlook studies. Relying on the case studies, different innovation and teamwork techniques (e.g. Delphi, focus groups) developed in social and information sciences will be utilized to incorporate insights of researchers and different end-users/target groups. The results will be reported in a state-of-art report and in case study reports which will be utilized for the dissemination of results to end/users and target groups.



## **E. ORGANISATION**

### **E.1 Coordination and organisation**

The COST mechanism will bring together the scientific community, public authorities, policy institutions and other stake-holders involved in forest-related policy-making to co-design the orchestration of forest-related policies within Europe. The scientific work is organized into three Working Groups (WGs).

The proposed Action will be led by a MC that consists of the national team leaders. The MC Members will be nominated by the COST countries. At the first MC meeting, the Action Chair, Vice Chair and WG Leaders are appointed from among the MC members.

In this Action, the role of national teams is important in all tasks. The national team leaders (MC members) are responsible for coordinating the national efforts according to the outlines agreed by the MC and instructions provided by WGs (e.g. templates for country reports). A Steering Group (SG), consisting of the three working group (WG) leaders, will support the MC in the design and coordination of work between WGs, budgeting, monitoring and dissemination activities of the Action. For example, the SG will define the calls for and coordinate STSMs so that they will support the objectives of the Action. For the collaboration and interaction between Working Groups, Task Forces (TFs) can be established. TFs are proposed by Joint Working Groups (JWGs) and approved by the MC.

The results from the three tasks will be published in three special issues of an international refereed journal. For each of the three special issues, an Editorial Board (EB) will be nominated by the relevant WG. The role of EB is to write the state-of-art report and coordinate its contents with writers of the country reports/case studies.

A web-site will be utilized both for external (e.g. monitoring reports, workshop material, executive summaries for stakeholders, linkages to scientific publications etc.) and internal (e.g. templates for country reports, outlines for case studies etc.) communication. The semantic wiki will be developed to support the harmonization of terminology within multidisciplinary community. The Chair of Action will be responsible for the internal and external communication within the Action (including

feedback collection from stakeholders for self-evaluation) and the Vice Chair for the scientific publications (e.g. negotiations with the journals).

## **E.2 Working Groups**

Activities and ways of work by Working Groups:

WG1 Forest-related policy targets and measures:

- qualitative research on the implementation of forest-related policy targets and measures (state-of-art by the international expert team and country reports by national teams);
- recommendations to deal with vertical and horizontal subsidiarity;
- interaction with WG2 for the formulation of the requirements for policy modelling and analysis tools.

WG2 Forestry modelling for integrated policy analysis:

- a review and evaluation of existing modelling and analysis tools (state-of-art report);
- case studies to be used in the evaluation and as a training set for capacity building (case study reports);
- interaction with WG1 for the formulation of requirements for policy modelling and analysis tools;
- interaction with relevant IUFRO and COST Actions (e.g. COST Actions FP603, FORSYS, USEWOOD).

WG3 Orchestration of forest-related modelling and policy analyses:

- a survey of existing processes/forums;

- case studies on processes/forums (case study reports);
- co-design of methodologies and best practices (state-of-art report);
- interaction with social and information sciences.

For the cross-WG tasks, TFs could be considered. In addition, there are common activities for all WGs:

- WG meetings (once a year, back-to-back with Joint Working Group Meetings (JWGMs)) that can propose STSMs to address specific questions or inter-linkages with stakeholders;
- JWGMs can propose TFs to interlink WGs for specific themes (e.g. between WG1 and WG2 on requirements for forest-related policy modelling and analysis tools);
- Special issues of peer-reviewed journals with state-of-art reports and country/case study reports.

### **E.3 Liaison and interaction with other research programmes**

The MC, supported by the SG, is responsible for monitoring the potential for collaboration within forthcoming research programmes in policy science, quantitative modelling and economics. The Action aims to collaborate and interact with on-going international activities, such as:

- In the formulation of the requirements for forest policy modelling and analysis tools (WG1, WG2): IUFRO division 9, COST FP1201, COST IS0802, the FP7 project INTEGRAL, the Romanian project HUBFORClimate, the EFICIENT project CI-SFM, the EFI ThinkForest;
- In the review and evaluation of models (WG2): IUFRO Working Unit 4.02.07 and COST FP0804;

- In building capacities to use the models for policy analyses (WG2): COST FP1001, the FP7 project ForEAdapt and the EFDM pilot;
- In the assessment and analyses of the status, trends and outlook for forestry (WG3), case studies on policy support processes, both global and regional (Europe, North-America and Russia), and Forest Sector Outlook Studies.

#### E.4 Gender balance and involvement of early-stage researchers

In this Action, STSMs are proposed by WGs, JWGs or TFs, to address specific questions or inter-linkages with stakeholders and are carried out mainly by early-stage researchers (ESRs). ESRs will have an important role also in the compilation of the training set for capacity building. The Action coordinator and more than 25 % of participants are female which is a high share in forest research, traditionally dominated by males.

#### F. TIMETABLE

Activity	Year 1		Year 2		Year 3		Year 4	
MC meetings	x	x		x		x		x
WG/JWG meetings		x		x		x		x
TF meetings			x		x			
STSM calls		x	x	x	x	x	x	
WG1 Workshop		x						
WG2 Workshop				x				
WG3 Workshop						x		
Special Issues 1: State-of-art and country reports								x
Special Issue 2: Evaluation of forestry models								x
Special Issue 3: Guidelines and Best Practices								x
Executive reports	x	x		x		x		x

Final Conference									x
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The length of the proposed Action is four years. The MC has a kick-off meeting during the first month of the Action. A total of 5 MC meetings are planned. A total of 4 WG meetings - back-to-back with JWG and MC meetings - will take place. During the Action, WGs, JWGs and TFs can propose STSMs to address specific questions or inter-linkages with stakeholders. The calls will be launched 6 times by SG. Three workshops and a Final Conference involving researchers and stakeholders are planned. The topics of the workshops are: policy targets and measures (WG1), forest (sector) models (WG2) and co-design of methodologies and best practices (WG3).

## G. ECONOMIC DIMENSION

The following COST countries have actively participated in the preparation of the Action or otherwise indicated their interest: [AustriaAT](#), [Bosnia and HerzegovinaBA](#), [BelgiumBE](#), [GermanyDE](#), [DenmarkDK](#), [EstoniaEE](#), [ESpain](#), [FinlandFI](#), [FranceFR](#), [CroatiaHR](#), [IEreland](#), [ItalyIT](#), [LithuaniaLT](#), [LatviaLV](#), [The Former Yugoslav Republic of MacedoniaK](#), [NetherlandsNL](#), [NorwayNO](#), [PolandPL](#), [PortugalPT](#), [RomaniaRO](#), [SwedenSE](#), [SloveniaSI](#), [SlovakiaSK](#), [United Kingdom](#). On the basis of national estimates, the economic dimension of the activities to be carried out under the Action has been estimated at 96 Million € for the total duration of the Action. This estimate is valid under the assumption that all the countries mentioned above but no other countries will participate in the Action. Any departure from this will change the total cost accordingly.

## H. DISSEMINATION PLAN

### H.1 Who?

For the dissemination of new scientific findings the following networks are valuable:

- IUFRO division 9 Forest Policy and Economics;
- IUFRO Working Unit 4.02.07 Large-scale forest inventory and scenario modelling;
- COST FP0804 Forest Management Decision Support Systems (FORSYS);

- COST FP1001 Improving Data and Information on the Potential Supply of Wood Resources - A European Approach from Multisource National Forest Inventories (USEWOOD);
- COST FP1201 Forest Land Ownership Changes in Europe: Significance for Management And Policy (FACESMAP);
- COST IS0802 The Transformation of Global Environmental Governance: Risks and Opportunities (TGEG);
- Global and regional (Europe, North-America and Russia) Forest Sector Outlook Studies: assesses and analyses the status, trends and outlook for forestry;
- the FP7 projects INTEGRAL and ForEAdapt;
- the e-Forest Framework project European Forestry Dynamics Model EFDM;
- ThinkForest
- EUFORMAG <http://www.euformag.eu/en.html>, the European network of forest sector magazines.

Result 1 – the implementation of forest-related targets and measures:

- the policy institutions and processes at EU and national levels;
- organizations or associations participating in policy processes at EU and national levels;
- MS governments;
- research institutions at EU and national levels.

Result 2 – stock-taking of models and capacity development in the use of models for forest-related policy analyses:

- the policy institutions at EU and national levels;

- research institutions at EU and national levels;
- professionals, public officials and young scientists that benefit from new capacities.

Result 3 – development of new methodologies and related guidelines for forest-related modelling and policy analyses:

- policy institutions, including stakeholder committees dealing with intersectoral policies such as EU Commission with its DGs (especially ENV, Agri and ENTR – and their committees SFC, AGFC, FBI) and research centres (JRC); EEA with its EIONET, forest owner organizations (public and private), forest-based industries, environmental NGOs, forest trade unions, traders and consumer groups, FTP with its NSGs, PEER, ENRD, EFI with its ThinkForest, UNECE/FAO with its Outlook studies;
- research institutions at EU and national levels.

## H.2 What?

The new scientific findings will be reported in three Special issues of peer-reviewed journals, each of them with a state-of-art report and country/case study reports. The aim is to publish them before the Final Conference, to be available for dissemination. During the Action, three workshops involving researchers and stakeholders are planned on policy targets and measures (WG1), forest (sector) models (WG2) and co-design of alternatives and best practices (WG3). A web-site will be utilized to share the material (presentations, executive summaries, links to publications and other web-sites) collected before/after workshops. The workshops will be organized together with relevant stakeholders and they are open for all potential stakeholders. The WG2 workshop will provide training/build capacities. An important way to interact with stakeholders is through STSMs that can be hosted by a stakeholder organization or network. For example, STSMs can involve stakeholders by surveys, questionnaires, interviews, panels or workshops. Another important way to communicate with stakeholders is through executive summaries and (monitoring) reports available at the Action web-sites. Stakeholders are free to use the reports in their own communication (e.g. by FTP meetings to inform NSGs).

### **H.3 How?**

The role of dissemination is extremely important for this Action that aims to support coherence of forest-related policies and cost-efficiency of related policy measures while trying to avoid proactive intervention in practical affairs and getting lost or stuck between various policy processes and actors. Therefore, considerable efforts are made for the design and coordination of dissemination activities during the whole Action. The role of the MC and national team leaders in the coordination of the reporting and disseminating of national activities, as well as the role of SG and WG leaders in the coordination of the reporting and disseminating of the scientific results, are emphasized.

All WGs are expected to design their scientific reporting and related dissemination activities (e.g. WGs and related web-contents, the outline of a special issue of a peer-reviewed journal with a state-of-the-art report and country/case study reports, with the aim to publish it before the end of the Action and Final Conference) already at the first WG meeting. The plans are thereafter synchronized in the meeting of the SG. Flexibility is provided through JWGs, Task Forces and STSMs.

Feedback will be collected (e.g. in the workshops and as a part of stakeholder activities) for the external evaluation and self-reflection of the Action.