



EFORWOOD

Sustainability Impact Assessment
of the Forestry - Wood Chain



Project no. 518128

EFORWOOD

Tools for Sustainability Impact Assessment

Instrument: IP

Thematic Priority: 6.3 Global Change and Ecosystems

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EFORWOOD brochure

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Organisation name of lead contractor for this deliverable: **InnovaWood Ltd.**

Final version

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

EFORWOOD brochures

This document contains two EFORWOOD brochures. The first one was designed in May 2007 and was used for dissemination on a few occasions. The second brochure is a triptych version that contains brief information on the project and will be used in dissemination activities to a wider stakeholder community.

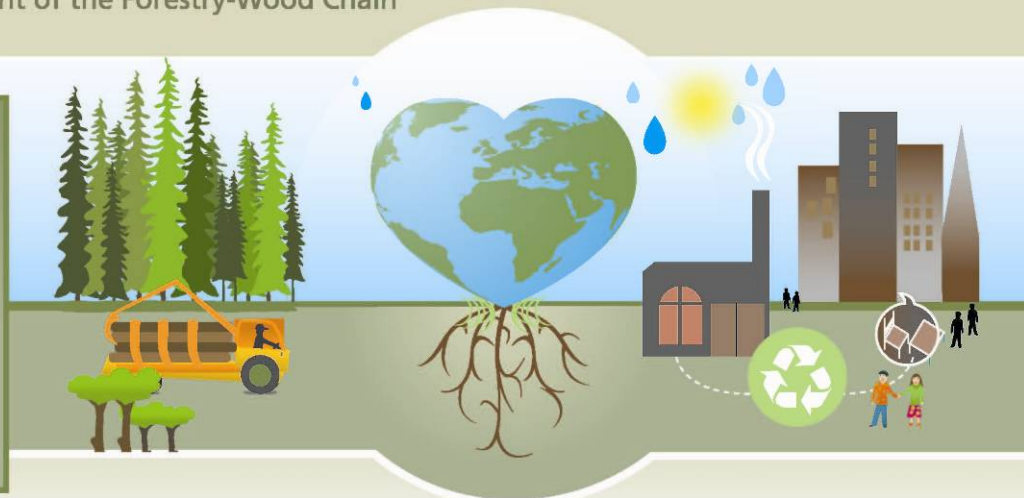


EFORWOOD

Sustainability Impact Assessment of the Forestry-Wood Chain

Objective

The objective of EFORWOOD is to develop a quantitative decision support tool for Sustainability Impact Assessment of the European Forestry-Wood Chain (FWC) and subsets thereof (e.g. regional), covering forestry, industrial manufacturing, consumption and recycling.



What is EFORWOOD?

EFORWOOD is a four-year integrated project involving 38 organisations in 21 countries, with an estimated total budget of €20 million – of which the European Commission contribution is approximately €13 million. The project is funded under the EU 'Global change and ecosystems' research activities in the Sixth Framework Programme.

Project ID 518128

Thematic Priority: Global Change and Ecosystem

Duration: November 2005 - October 2009 (4 years)

Budget: 20€ millions

Partners: 38 organisation

Project Co-ordinator:

Prof. Kaj Rosen, Skogforsk, Sweden

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The importance of stakeholder interaction in EFORWOOD

A stated aim of sustainability impact assessment (SIA) is to improve transparency in public policy decision making. A requirement in SIA is to involve stakeholders to ensure relevance and legitimacy in the use of SIA results.

One of the central aims of this involvement is to get stakeholders' views, constructive feedback and recommendations on key EFORWOOD developments and outcomes. Thus, an essential role of stakeholder interaction in EFORWOOD is to supplement the technical and scientific expertise of project partners. For example, in completing the first draft set of proposed indicators for the whole European FWC, end-users and other stakeholders provided valuable input and discussion.

The EFORWOOD partnership includes three large European industry representative federations in the sector: CEI-Bois, CEPI and CEPF.

EFORWOOD Product - ToSIA

The Tool for Sustainability Impact Assessment (ToSIA) is the main product of EFORWOOD, which integrates major outputs from the Modules of the project. This tool will allow the assessment of the impact of changes in the FWC, based on previously determined social, economic and environmental indicators. It will be developed as a dynamic analysis model, using a consistent and harmonized framework from the forest to the end-of-life of final products.

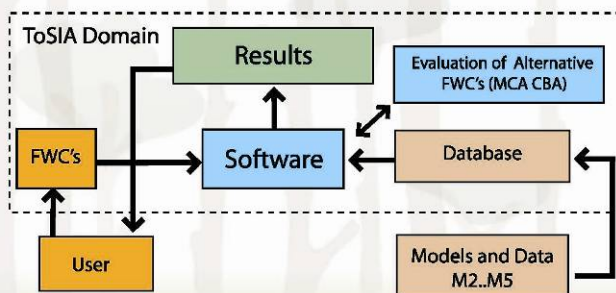
During the project several versions of the ToSIA will be developed (ToSIA-U and ToSIA-E).

ToSIA-U, a user-friendly, web-based version, which includes the menu-surface and context-help, will allow the fast learning and application of the tool. A demonstration package of ToSIA-U with selected case study data and policy scenarios, will also be used and disseminated in stakeholder training courses.

ToSIA-E will be more suitable for the policy makers and offer its features more adjusted to this user category.

The ToSIA and its environment

As can be seen from the Figure below, the ToSIA tool interacts with indicator and other data currently being gathered and assessed by the different modules. It also interacts with the different FWC value chains as decided by the user. The software is linked to two evaluation processes (Multi-Criteria Analysis and Cost-Benefit Analysis) before feeding back results to the user.





Background to EFORWOOD

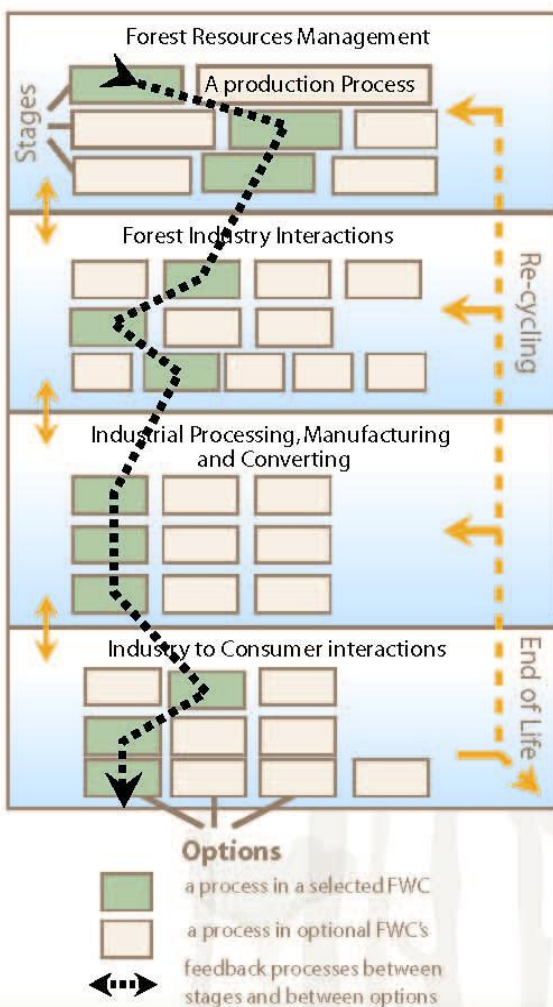
Sustainable development has three main pillars - economic, social and environmental. Within the forest sector those include income and employment, social activities, healthy and productive forests, clean water and clean air. All three pillars are needed to support each other.

The forest-based sector needs to be economically strong so that part of the wealth generated can be used for forest conservation and other activities such as waste-water treatment. On the other hand, in the forest-based sector we need environmental (vitality of forests) and social sustainability in order to be able to ensure the economic viability of the sector in the long run.

Currently, the European forest-based sector employs close to four million people, there are 16 million private forest owners, and the share of the sector's production value is 8% of that of the European Union.

Through this research, the forest-based sector will be in the front line in identifying means by which the strategic and political decisions on sustainable development currently being discussed all around Europe can be put into practice.

Competitiveness and sustainability are not exclusive of each other. Nowadays, the choices made by consumers are moving towards products certified as being part of a sustainable production process.



The scope of the project

The scope of the project is large and ambitious. To ensure scientifically proven and effective results, EFORWOOD is structured in four main stages along the FWC:

- Forest Resource Management concerns forest status and production, and includes all forest management activities from regeneration to maturation of tree stands.
- Forest to Industry Interactions encompasses all activities from tree harvesting and wood transport to the provision of pre-processed materials fed into industrial processes
- Processing and Manufacturing consists of manufacturing and processing of forest-based raw materials, from entering the industrial processes until the material changes from being a commodity into component/specific material to be used in a consumer product
- Industry to Consumer Interactions covers the final parts of the FWC, where FWC-materials are often combined with other materials, and with consumers and materials recovery as the closing link.

For each of the stages, the current level of sustainability will be assessed using criteria and indicators. Integrated SIA for the European FWC will be derived from the results of the analyses of the four stages, using consistent criteria and indicator concepts.



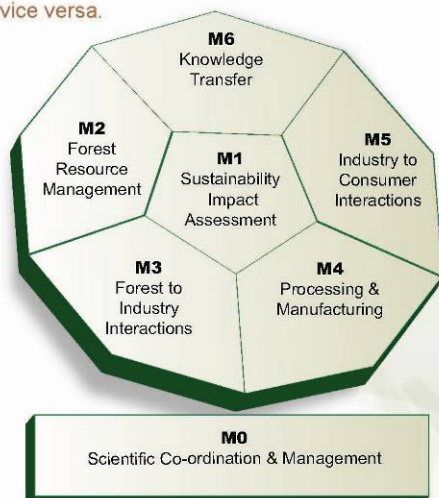
EFORWOOD

Sustainability Impact Assessment of the Forestry-Wood Chain

Project Impact

EFORWOOD will contribute to the wider social and political objectives of the EU sustainable development strategy by:

- Assessing the impact of potential changes in sustainability of FWCs,
- Identifying potential ways to improve the level of FWCs sustainability,
- Providing policy makers and the EU forestry and forest-based industry sectors with a SIA tool for whole chains, from forest resources to forest-based products including reuse and recycling of materials,
- Facilitating societal dialogue, informed decision making and dissemination of information,
- Assisting the forest-based sector in its strategies to adapt to and mitigate climate change,
- Providing knowledge for risk management in forestry and associated industries,
- Identifying the impacts of changes in the European FWC on regions outside Europe, in particular developing countries, and vice versa.



EFORWOOD is organised in a modular structure.

Module 1 is the integrating module, where the common framework and tools for the Sustainability Impact Assessment will be developed.

Modules 2 to 5 concentrate on the different aspects of the FWC from Forest Resources through to Interactions with Consumers and all in between.

Module 6 is focused on the dissemination of project results.

Module 0 includes the project management and the co-ordination of stakeholder interactions.

Sustainability Indicators

In the context of EFORWOOD project, the sustainability impact assessment of FWCs (Forest Wood Chains) will involve the tracking of inputs and outputs from all processes that occur in a given chain. This includes the product/value flows from forest to consumption and possible recycling. A series of relevant indicators will be attached to each process in the different chains.

Covering all three dimensions of sustainable development, the finally selected indicator sets and frameworks should provide the key information for the decision making on the impact to sustainability of modifications to Forestry-Wood Chains as influenced by policy changes, market drivers, or technological innovations.

In order to reach the challenging project mission wide stakeholder consultations will take place. Key stakeholders will contribute to reviewing the indicator's sets, scenario alternatives, project drivers and shaping of the final EFORWOOD product, the ToSIA tool.

In relation to the indicators sets, so far the focus has been on developing of (i) a common understanding of their overall structure, (ii) developing and agreeing among the modules and among key stakeholders a set of indicators that include lead indicators, general FWC indicators and module specific indicators, (iii) agreeing on the major themes and topics to be covered as well as the parameters and measurement units that are relevant to the indicator set and (iv) selecting indicator sub-sets for the first ToSIA prototype application.

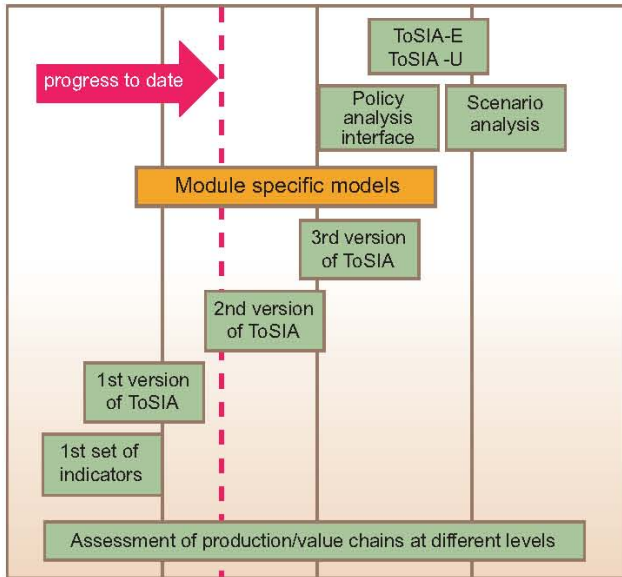




Project progress

As the below chart shows, we are now moving into a very exciting and challenging phase of the project after our first 18 months of work.

The work so far has involved assessment of example value chains, called " test chains" , development of an initial set of indicators and the development of the 1st and 2nd ToSIA prototypes.



Project Consortium: EFORWOOD thinks globally

The EFORWOOD consortium involves 38 partners organisations covering the activities of the Forestry-Wood chain sector from forestry, through primary and secondary processing, furniture, construction, pulp and paper and the interactions of wood-based products with other value chains.

By involving partners from developing countries (Costa Rica, Republic of Congo and Indonesia) in regional case testing, the SIA applications will also access global aspects of the impact of changes in the European FW.

The INCO country partners will contribute to the EFORWOOD objectives by bringing local and regional knowledge into the consortium.

Partners

AFOCEL -Association Forêt Cellulose (FR), AIDIMA - Asociación de Investigación y Desarrollo en la Industria del Mueble y Afines (ES), Alterra- Alterra BV, Centre for Ecosystems Studies (NL), ALUFR - Institute of Forest Utilisation and Work Science, Albert Ludwigs University, Freiburg (DE), BFH - Federal Research Centre for Forestry and Forest Products (DE), BOKU - Dept. of Forest and Soil Sciences, Institute of Silviculture, University of Natural Resources and Applied Sciences, Vienna (AT), BRE - Building Research Establishment (UK), CATIE - Dept. Natural Resources, Tropical Agricultural Research and Higher Education Center (CR), CEI-Bois -European Confederation of Woodworking Industries (BE), CEPF - Confédération Européenne des Propriétaires Forestiers (BE), CEPI -Confederation of European Paper Industries (BE),CIFOR - Center for International Forestry Research (ID), CIRAD - CIRAD, Forestry dept. (FR), CTFC - Centre Tecnologic Forestal de Catalunya (ES), EFI - European Forest Institute (FI), FR - Forestry Commission Research Agency (UK), FVA - Baden-Württemberg Forest Research Institute (DE),

IBL - Dept. of Forest Management in Mountain Regions, Forest Research Institute (PL), IFE-MUAF - Institute of Forest Ecology, Faculty of Forest and Wood Technology, Mendel University of Agriculture and Forestry (CZ), IFER - Institute of Forest Ecosystem Research (CZ), IW - InnovaWood Ltd. (IE), INRA - Institut National de la Recherche Agronomique (FR), ISA - Instituto Superior de Agronomia (PT), Pöyry - Pöyry Forest Industry Consulting Oy, (FI), KCL - OY Keskuslaboratorio – Central-laboratorium AB (FI), KCPK - Kenniscentrum Papier en Karton (NL), UoC/KVL - University of Copenhagen (DK), Savcor Indufor - Savcor Indufor OY (FI), SFI -Slovenian Forestry Institute (SI), SGGW -Dept. of Forest Utilization, Faculty of Forestry, Warsaw Agricultural University (PL), SILAVA - Latvian State Forestry Research Institute (LV), Skogforsk - The Forestry Research Institute of Sweden (SE), SLU -Sveriges Lantbruksuniversitet (SE), STFI-Packforsk - STFI-Packforsk AB (SE), TUZVO - Faculty of Forestry, Technical University in Zvolen (SK), UMB - Dept. of Ecology and Natural Resource Management, The Norwegian University of Life Sciences (NO), UR2PI -Unité de Recherché sur la Productivité des Plantations Industrielles (CG), VTT - Technical Research Centre of Finland (FI)

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Sustainability Impact Assessment of the Forestry-Wood Chain

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EFORWOOD – responding to changing demands

Decision makers dealing with forest-based sector issues, be it in government or industry, need comprehensive, reliable, timely and policy-relevant information to respond to changes and changing demands.

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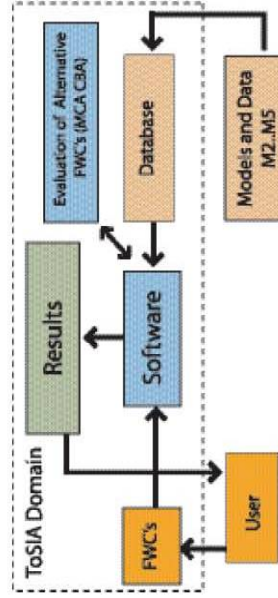
The EFORWOOD project has set out to assist, enhancing understanding of how global changes impact the European forest-based sector. EFORWOOD will stress the importance of minimising the negative consequences of ongoing changes, and making full use of the opportunities that societal changes offer to the sector.

The project's main objects of study are forestry-wood chains in Europe. All main components of these chains are in focus, from forest status and production to industry to consumer interactions

PROJECT Product

EFORWOOD's main product will be a Tool for Sustainability Impact Assessment (ToSIA) for the forest-based sector. This decision-support tool in the form of a software package will facilitate assessment of the impact of changes in the forestry-wood chain, based on a series of social, economic and environmental indicators. For all main components of the forestry-wood chain, the current level of sustainability will be assessed.

This provides the basis for an integrated sustainable impact assessment for the European forest-based sector.



Different versions of the ToSIA will be developed for different purposes, in close collaboration with end users. Use of the tool will be promoted amongst stakeholders through a demonstration package with 'real-life' cases, as well as through training courses

PROJECT Benefits

The project will provide stakeholders with a unique decision-support tool which covers entire forestry-wood chains, from forest resources to forest-based products and services, and including re-use and recycling of materials.

The ToSIA tool will help assess the impact of potential changes in sustainability of forestry-wood chains. It will also assist in identifying ways to improve the level of sustainability of these chains, in line with global, European and national policies. One important aspect of this is to assist the forest-based sector in its strategies to adapt to and mitigate climate change. Knowledge will be provided for risk management in forestry and associated industries. Moreover, the ToSIA will make it possible to identify the impacts of changes in the European forestry-wood chain on regions outside Europe, and vice versa.

EFORWOOD will also enhance dialogue and information exchange within the forest-based sector, as well as between the sector and society at large.



PROJECT BACKGROUND:

The forest-based sector in a changing world

Europe's forest-based sector faces major challenges. Globalisation, changing trade relationships, as well as shifts in demography, lifestyles and consumption patterns have led to changing demands for forest products and services. Many of these developments challenge sustainable development.

Through current debates about issues such as climate change, renewable energy, biodiversity, competitiveness and people's wellbeing, European forest and forestry issues have once again moved up on the political agenda. Europe's increasing forest resource, for example, supplies a forest products industry which is a global technology leader and which provides employment to millions of Europeans. Forest biomass can contribute to meeting the European Union's goals for more renewable energy. On the other hand, the supply of raw material to paper, woodworking and other industries needs to be secured. Europe's forests also provide a wide range of essential ecosystem services, such as securing our drinking water, helping to mitigate climate change and providing settings for recreation and tourism.

Stakeholders in the European forest-based sector have one important thing in common, namely forests as a resource base. The sector is unique in providing a wide range of products and services in an environmentally-friendly way. Its raw material is grown in a biodiversity-rich, natural environment. The forest-based sector is an example to other sectors when it comes to sustainable production processes. However, its character of being land based and at the same time embodying a high-tech industry makes it a very complex sector. It requires a careful balancing act between economic, social and environmental sustainability.

CONSORTIUM



The EFORWOOD consortium comprises 38 organisations from 21 countries. Partners represent some of the best scientific expertise in relevant fields, as well as key representatives from forest-based industry. By involving partners from developing countries in regional case testing, global aspects of the impacts of changes in European forestry-wood chains are also considered.

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