



EFORWOOD

Sustainability Impact Assessment
of the Forestry - Wood Chain



Project no. 518128

EFORWOOD

Tools for Sustainability Impact Assessment

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Thematic Priority: 6.3 Global Change and Ecosystems

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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)	

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Appendix 1: Periodic activity report, WP Leader

1 Introduction

1.1 Background

The processes in the latter part of the FWC and the interaction between forest-based industries and consumers/ end-users is the main scope within Module 5 of Eforwood. The Module is primarily motivated by the observation that further development of the FWC towards sustainability, needs to be well-founded in a market perspective with outlook also beyond the FWC. This perspective includes aspects for both professional intermediaries and consumers and other end-users in the FWC as well as stakeholders in interacting value chains.

1.2 Objectives for the reporting period

The overall objective is to evaluate FWC products functional performance and impact on sustainability in interacting value chains, including also the consumer perspective (being the crucial, final link in the value chain). Both quantitative and qualitative research approaches are to be used in parallel to complement each other. The development and use of ToSIA in M1 is to be supported in two ways. Firstly M5 should be actively involved in the development process and deliver M5 process data to M1. Secondly, results from qualitative research activities should be used to support sustainability impact assessment using ToSIA. To realise the latter, a partial qualitative SIA tool is to be developed at a later stage, within the module. Finally, changes should be suggested and communicated to upstream modules and actors to improve FWC product's functional performance with a view to improve the overall sustainability.

Key objectives/milestones for the reporting period are:

In WP5.0:

- coordinate the module work and ensure that the objectives of M5 are reached and activities completed in accordance with time schedule and budget
- co-ordinate the linkages with the IP management and with other modules

In WP5.1

- Quantitative analysis of supply-chain in the FWC and interacting final product value chains (process identification and aggregation)
- Within the framework of process mapping and aggregation, to select and define single chain and test chain processes
- Quantitative data definition and collection for ToSIA test and single chains
- Identify, select and define key indicators for the FWC. This includes participation in indicator task force groups and coordination of Indicator Waste Group.
- Define ToSIA case studies with the Iberian case study coordinated by M5
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In WP5.2

- Through a literature review collect a comprehensive information basis of the attitudes and perception of FWC materials/ final products in a sustainability and functional performance context.
- Data collection of costs, benefits, criteria weights and trade data for wood-based products according to M1 and ToSIA requirements
- Plan and execute module internal case studies
- Conduction of qualitative research on consumption attitudes and perceptions towards forest-based products and sustainability: end-users focus groups and experts interviews to support case studies.
- Preparation of training session on consumption issues to be held at Zvolen week

2 Work package progress of the period

The work in M5 has made good progress against targets and objectives. Collaboration with other modules has been a key area. Selection and definition of sustainability indicators, chain definitions and data provision have been carried out in close cooperation with M1. Close links have also been established with M4 and M3 to discuss and solve joint problems such as interface issues. There have been activities and related tasks in a number of areas related to the active work packages in M5 (WP5.0, WP5.1 and WP5.2). Some key tasks and related progress during the period have been:

- Forming of a strong M5 team. Module partners have met and communicated frequently in physical meetings, telephone conferences and by e-mail. Staff changes at partners have made it necessary to introduce and integrate new researchers at various stages.
- Methodological issues have been a major task in the initial phases of the project work in M5. This relates to the ground breaking nature of the project.
- Process mapping and aggregation in final products value chains: These are related to, but partially outside the FWC.
- ToSIA related definition and selection of criteria and indicators.
- ToSIA related definition of single chains and data collection.
- Definition of ToSIA related case studies. Iberian case coordinated by M5
- A completed literature review related to forest based products consumption, performance and sustainability.
- Completed M5 internal case studies looking into perceptions of forest based products consumption, performance and sustainability.

WP5.0

In WP5.0, module management, co-ordination and interfacing with other modules have been executed. Activities include organisation and documentation of module meetings and cross-module meetings as well as participation in IPB, GA, kick-off and Eforwood week meetings. The planning and division of work between the work packages in M5 has been coordinated. A plan and budget proposal for M5 activities in the new Implementation plan (Month 13-30) has been produced. The annual report (D5.0.1) for M5 has been produced as well as this intermediate 18 months report.

WP5.1

For WP5.1 the work performed and progress made can be described as follows:

- Mapping of the FWC has been done following a subdivision in 3 interactive chains:
 - Interactive chain 1: Wood products incl. Wood based panels
 - Interactive chain 2: Fibre/ Paper
 - Interactive chain 3: Bioenergy

A clear definition of each interactive chain has been given, and input as well as output products have been defined in detail. Mapping has been done including all steps of the producer-consumer interactions (transport, storage, conversions, use/reuse, recovery/recycling, end of life)

- Sustainability criteria and indicators have been developed in close collaboration with M1 and other modules
- Test chains have been defined and elaborated for M5 producer-consumer chain.
 - A forest-defined pine chain in Scandinavia for furniture and bio-energy
 - A product-defined fine paper/newspaper chain mainly based on eucalyptus and including recycling, and
 - A regional-defined spruce chain in Baden-Wurtemberg for timber frames.

Within each test chain all specific steps and products in the producer-consumer interactions have been mapped and aggregated

- Data collection for the test chains:

Data have been collected for the sustainability indicators in ToSIA by the following partners:

- AIDIMA: Wood products incl. Wood based panels data
 - STFI-Packforsk: Fibre/ Paper data
 - Pöyry Forest Industry Consulting Oy: Bioenergy data
- Revision of test chains (findings and troubles) for improvement in further single chains.
 - Module representatives in respective indicators task force groups: Socio-economic, Waste, Environmental, Transport. Coordination of Waste Group.
 - Module representatives in respective regional case studies: Iberian Case Study, Scandinavian Case Study, BW Case Study. Especially, coordination of Iberian Case Study tasks and leading role.

WP5.2

The major activities and related progress in WP5.2

- A literature review on forest-based products consumption, performance and the sustainability concept has been done. Results have been reported in the project deliverable PD 5.2.1.
- Close collaboration with M1 as regards discussion of the needs related to M5 data collection of costs, benefits, criteria weights and trade data for wood-based products
- Module internal Case studies have been planned and executed.

- To support case studies, conduction of qualitative research on consumption attitudes and perceptions towards forest-based products and sustainability: end-users focus groups and experts interviews. Special focus on furniture (wood products), packaging and books (fibre products) and pellets (bioenergy products).
- Preparation of training session on consumption issues to be developed at Zvolen week.

3 Tasks and contributions by partners in the Module work

3.1 STFI-Packforsk

WP5.0

Module management and coordination including contacts with module partners, other modules (primary M1, M4, M3 and M6) and the coordinator. Organisation and documentation of module and cross-module meetings. IP Board and General Assembly meetings participation. Participation in Project kick-off, Eforwood weeks in Edinburgh, Lisbon and stakeholder meetings in Rolduc. Preparation of annual and 18 month report for M5.

WP5.1

General responsibility for fibre related issues in all performed tasks and activities in the WP. This includes mapping and aggregation of fibre related processes and products in the industry to consumer phase of the Forestry Wood Chain as well as definition of processes and data collection for the Fine paper/ Newspaper test chain and single chain. STFI-Packforsk has had a leading role in the iterative development process of the criteria and indicator framework to be used in ToSIA. This has been performed in close collaboration with module partners, M1 and M4. STFI-Packforsk has also been active and represented M5 in the Transport working group as well as coordinated the Waste working group. Fibre related market characterisation and research work linked to ToSIA case studies as well as intense interface work with M4 and M3 has been carried out. M5 related training and knowledge dissemination needs has been planned in close liason with M6.

WP5.2

General responsibility for fibre related issues in all performed tasks and activities in the WP. This includes planning and execution of a literature review focusing on sustainability and functional performance of fibre based products (primarily packaging and printed products) in the Forestry Wood Chain and interacting value chains for final products. This was followed by case study preparation with major involvement in defining templates for interviews and focus groups and the responsibility to carry out research in Sweden, Germany and outside EU.

Conduction of two focus groups with Swedish end-users to assess their perceptions and attitudes on forest-based products (furniture, juice packages and books). Gathering experts information on the packaging and publications

market about attitudes towards sustainability. Gathering experts opinions on criteria for buying in hotels and hospitals (B2B).

Preparing training sessions on consumption issues to be included in the scenarios session at Zvolen week.

3.2 AIDIMA

WP5.0

Work associated with the reporting of our work. Participation in Project kick-off meeting at Uppsala (Sweden), Eforwood week in Edinburgh (May 2006), module meetings at Kerkrade (Holland, September 2006) and Brussels (Belgium, October and December 2006).

WP5.1

Responsibility for wood related issues in all performed tasks and activities in the WP, especially in mapping and aggregation of wood chains in the industry to consumer phase of the Forestry Wood Chain. Definition of processes and data collection for the Pine chair and the Spruce building frame test and single chains. Participation in the revision of criteria and indicators to be used in ToSIA, especially related to wood chains. Collection of wood test chains data. Reporting of partial deliverables (PD5.1.1, PD5.1.2 and PD5.1.3) for Module 5. Reporting of deliverable D5.1.4.

Revision of test chains in order to deeper approach for single chains.

Leading role for Iberian Case Study, organising and holding conference meetings and coordinating work amongst participants. Wood chains definition and statistic research for Iberian case characterisation.

Taking part in indicators task force groups: waste group, socioeconomic group and environmental group, supporting work for wood chains perspective.

WP5.2

Responsibility for wood related issues in all performed tasks and activities in the WP. Coordination of planning and execution of a literature review focusing on sustainability and consumption concepts. Execution of literature review for wood-related sources. Reporting of partial deliverable on literature review (PD5.2.1) for Module 5. Planning and preparation and execution of case studies.

Leading role in the definition and coordination of WP5.2.2 on the preparation of case studies on consumption perceptions towards forest-based products and sustainability. Conduction of two focus groups with Spanish end-users to assess their perceptions and attitudes on forest-based products (furniture, juice packages and books). Gathering experts information on the furniture market about attitudes towards sustainability in Germany (B2C). Gathering experts opinions on criteria for buying furniture in hotels (B2B). Coordinating research materials from rest of partners in order to elaborate D5.2.3.

Preparing training sessions on consumption issues to be included in the scenarios session at Zvolen week.

3.3 PFIC

WP5.0

Work associated with the reporting etc. of M5 work. Participation in Project kick-off, Eforwood weeks in Edinburgh, Lisbon and stakeholder meetings in Rolduc. Organising and participation in M1/M4/M5 bioenergy meeting.

WP5.1

General responsibility for bioenergy related issues including mapping and aggregation of bioenergy chains. Work associated with the development of criteria and indicators for ToSIA, with a special emphasis on the consumption stage of bioenergy. Defining chains and processes for bioenergy and commenting other chains. Collection of bioenergy indicator data. Conceptual development of VaCa: Value chain integration model. Commenting the work of other Module 5 partners and responsibility for M5 work with Multi-Criteria Analysis (no activity in the reporting period).

Participation in all regional case task forces (bioenergy), and co-ordination of the Iberain chain's bio-energy part. Work in Socio-economic Indicators and Energy Indicators Group. Working with the M4/M5 interface, especially in the area of ToSIA related regional cases.

WP5.2

Development of M5 case study, information collection on three selected markets and implementation of consumer surveys and analysis of intermediates attitudes and demands on wood-based pellets. Collection of bioenergy data and commenting the work of other Module 5 partners

Preparing training sessions on consumption issues to be included in the scenarios session at Zvolen week.

3.4 CEPI

WP5.1

Most of the work has been carried out on the paper and board supply chains, for different grades. Work mostly consisted in commenting documents sent by other partners, the M5 or WP leader. This work has been complemented by various meetings and several phone conferences. Statistical data has been provided by CEPI.

WP5.2

CEPI has had an advisory role mainly in providing contacts and selecting products and markets for case studies.

3.5 CEI-Bois

WP5.1

Most of the work has been carried out on the wood products and panels supply chains. Work mostly consisted in commenting documents sent by other partners, the M5 or WP leader. This work has been complemented by various meetings and several phone conferences.

WP5.2

CEI-Bois has had an advisory role mainly in providing contacts and selecting products and markets for case studies.

4 Conclusions

The work in M5 has made good progress against targets and objectives for the first 18 months. Close collaboration have been established with other modules to discuss and solve joint problems, e.g. interface and training issues. A key aspect during the first year was to form a good M5 team. The teambuilding activity has been going on with several meetings and frequent communication to integrate new researchers in the team.

The involvement in ToSIA development; indicator selection and definition, test , single and case study chain definitions and data collection has been primary tasks in WP5.1. The work in WP5.2 has started in the midst of the first year with literature reviews and intensified in months 13 and onwards with module specific case studies. Methodological issues have also been a major task in the first 18 months of the project work in M5, as well as planning of the work for coming months 13-30 in a new implementation plan. Preparation for training to be given in Month 19.

Appendix 1:

Periodic Activity Report, WP Leader
Intermediate report 18 months
Period: November 1, 2005 - April 30, 2007

WP leader	STFI-Packforsk	WP number	5.0
Date	2007-04-30		
<p>Work package objectives, starting point of work at beginning of reporting period.</p> <p>To coordinate the module work and ensure that the objectives of M5 are reached and activities completed in accordance with time schedule and budget and to co-ordinate the linkages with the IP management and with other modules</p>			
<p>Progress towards objectives, tasks worked on, achievements made with reference to planned objectives, contractors involved.</p> <p>Module management, co-ordination and interfacing with other modules have been executed in this WP. Activities include organisation and documentation of module meetings and cross-module meetings as well as participation in IPB, GA, kick-off and Eforwood week meetings. The planning and division of work between the work packages in M5 has been coordinated.</p> <p>A plan and budget proposal for M5 activities in the new Implementation plan (Month 13-30) has been produced, including WP5.3 which is to be started in Month 19. An annual report (D5.0.1) and an intermediate 18 month report (PD5.0.2) for M5 has been produced.</p>			
<p>Deviations from workprogramme (if any), corrective actions taken, nature and reason for problem, contractors involved.</p> <p>PD5.0.2 delayed because of limited management resources. Adequate resources are now available.</p>			

Periodic Activity Report, WP Leader
Intermediate report 18 months
Period: November 1, 2005 - April 30, 2007

WP leader	AIDIMA	WP number	5.1
Date	2007-04-30		
<p>Work package objectives, starting point of work at beginning of reporting period.</p> <ul style="list-style-type: none"> ▪ Quantitative analysis of the supply-chain in the FWC (mapping and aggregation of processes and value chains for final products) ▪ Quantitative data collection for TOSIA test chains ▪ Qualitative analysis of the supply-chain in the FWC ▪ Qualitative and quantitative analysis on the demand 			
<p>Progress towards objectives, tasks worked on, achievements made with reference to planned objectives, contractors involved.</p> <ul style="list-style-type: none"> ▪ Mapping of the FWC has been done following a subdivision in 3 interactive chains: <ul style="list-style-type: none"> - Interactive chain 1: Wood products incl. Wood based panels - Interactive chain 2: Fibre (Paper& Board) - Interactive chain 3: Bioenergy ▪ A clear definition of each interactive chain has been given, and input as well as output products have been defined in detail. Mapping has been done including all steps of the producer-consumer interactions (transport, storage, conversions, use/reuse, recovery/recycling, end of life). Test chains have been defined and elaborated for M5 producer-consumer chain. <ul style="list-style-type: none"> - A forest-defined pine chain in Scandinavia for furniture and bio-energy - A product-defined fine paper/newspaper chain mainly based on eucalyptus and including recycling, and - A regional-defined spruce chain in Baden-Wurtemberg for timber frames. <p>Within each test chain, specific steps and products in the producer-consumer interactions have been mapped and aggregated.</p> <ul style="list-style-type: none"> ▪ Data collection for the test chains: Data have been collected for the sustainability indicators in ToSIA by following partners: <ul style="list-style-type: none"> - AIDIMA: Solid wood incl. Wood based panels data - STFI-Packforsk: Fibre (Paper& Board) data - Pöyry Forest Industry Consulting Oy: Bioenergy data ▪ Revision of test chains findings and limitations for further single chains ▪ Coordination of Iberian Case Study, organising and holding conference meetings and coordinating work amongst participants. Chains definitions and statistic research for Iberian case characterisation. ▪ Participation in Baden Württemberg and Scandinavian case study. ▪ Coordination of indicator task force waste group 			

- Participation in indicators task force groups: transport, energy, socioeconomic and environmental group,

Deviations from workprogramme (if any), corrective actions taken, nature and reason for problem, contractors involved. Methodology reports PD5.1.1 and PD5.1.2 were delayed due to unclear interfacing of project tasks between M5, M4 and M1. Delay did not affect the fulfilment of partial WP5.1 objectives for Year 1. PD5.1.5 and D5.1.6 were delayed due to unsolved issues related to definitions of indicators and single chains. The issues have now largely been resolved and the deliverables are expected in Month 23. The 5.1 delay will not halt progress in other module

Periodic Activity Report, WP Leader
Intermediate report 18 months
Period: November 1, 2005 - April 30, 2007

WP leader	AIDIMA	WP number	5.2
Date	2007-04-30		
<p>Work package objectives, starting point of work at beginning of reporting period.</p> <p>The Work Package 5.2 is motivated by the observation that further development of the FWC towards sustainable production and the promotion of sustainable consumption of renewable resources require a well-founded understanding of the attitudes and demands of consumers (both professional intermediaries and end-users).</p> <p>The objective of this WP is to collect comprehensive information datasets of attitudes and perception of FWCs raw-materials as well as final products in relation to sustainability and functional performance context. This includes personal (needs, attitudes, knowledge, demand, preferences, behaviour), socio-psychological, socio-cultural as well as socio-demographic aspects as well as reasons, driving factors, trends and future expectations for the value chain for final products, i.e. paper, wood, energy and reverse logistics for recovery. This information lays ground to the identification of important information and knowledge gaps (“hot spots”) on consumers’ relation to the FWC, its products and the sustainability concept (esp. attitudes, demand, future expectations). WP 5.2 will provide following outputs:</p> <ul style="list-style-type: none"> ▪ An intermediate literature review report; ▪ A case study report, based on surveys, interviews and focus groups; ▪ A summary analysis report on consumers, wood based products and substitutes in the light of the forestry-wood chain sustainability concept including the identification of hot spots, complementing report on process mapping and aggregation from WP 5.1, to be included in the identification of tentative sustainability indicators for WP 5.3. 			
<p>Progress towards objectives, tasks worked on, achievements made with reference to planned objectives, contractors involved.</p> <p>The literature review on forest-based products consumption and the sustainability concept has been provided in deliverable PD 5.2.1.</p> <p>Preparation of objectives and implementation of research tasks for developing the case study on consumption perceptions towards forest-based products and sustainability. Conduction focus groups (wood and fibre products) In Spain and Sweden, and expert interviews in the same countries as well as India, Germany and Finland. Analysing buying process in a B2B and B2C context.</p> <p>Adapting results and content for training sessions to be included in the scenarios session for module and WP leaders and stakeholders at Zvolen week.</p>			

Deviations from workprogramme (if any), corrective actions taken, nature and reason for problem, contractors involved.

Literature review was delayed three months until project objectives for M5 were clear. D5.2.3 was delayed for two months. Delay did not affect fulfilment of partial WP5.2 objectives up to Month 30.