

ANNEXES

Report of the STANDING FORESTRY COMMITTEE AD HOC WORKING GROUP ON

SUSTAINABLE FOREST MANAGEMENT CRITERIA & INDICATORS

List of Annexes

1. List of all Members of the Working Group	2
2. Meetings list	3
3. Mandate of the Working Group on Sustainable Forest Management Criteria & Indicators	4
4. List of presentations	7
5. Key concepts & Definitions	8
6. Questionnaire n°1 for the members of the Standing Forestry Committee	9
7. Questionnaire n°2 for the members of the Standing Forestry Committee:	13
8. Report of the analysis of responses on Questionnaire n°1	14
9. Report of the analysis of responses on Questionnaire n°2	21
10. Approaches and tools to demonstrate sustainable forest management	27
11. Non-paper on EU Policy Needs	34
12. International reporting	41
13. FOREST EUROPE Criteria & Indicators	42
14. References	45

1. List of all Members of the Working Group

1. Standing Forestry Committee Experts –Member States

Member State	Name
AT	Ingwald Gschwandtl, Victoria Christina Piribauer
BE	Christine Farcy
CZ	Lenka Kratochvílová, Jaroslav Kubista
DE	Thomas Huber
DK	Christian Lundmark Jensen
ES	Francisco Javier Adell Almazán, Guillermo Fernández Centeno
FI	Teemu Seppä
FR	Jonathan Saulnier
HU	Andras Szepesi
NL	Sipke Castelein
PL	Tomasz Wójcik
PT	Graça Rato
SE	Ingeborg Bromée
UK	Richard Howe

2. Advisory Group on Forestry and Cork Experts – stakeholders

Represented Stakeholder group	Name	Organisation
Private Forest Owners	Janne Näräkkä / Aljoscha Requardt	MTK / CEPF
Workers	Björn Karlson	UEF
Consumers	Nicolas Revenu	BEUC
NGOs	Saskia Ozinga / Anke Schulmeister	FERN / WWF
Public Forest Owners	Martin Lindell / Anne Galibert	EUSTAFOR / FECOF
Industry	Bernard de Galember / Karoliina Niemi	CEPI / FFI
External experts	Name	Organisation
Forest research	Stefanie Lindser	EFI
	Berhard Wolfslehner	EFI
	Tanya Baycheva	EFICIENT-OEF

3. Commission services' representatives

DG	Name	Unit
AGRI	Ignacio Seoane	H4
AGRI	Maria Gafo Gomez-Zamalloa	H4
AGRI	Steve Smith	H4
AGRI	Dan Burgar Kuželički	H4
CLIMA	Michael Bucki	A2
ENER	Giulio Volpi	C1
GROW	Jeremy Wall	C2
GROW	Ewa Oney	C2
GROW	Andrea Danni	C2
ENV	Andrea Vettori	B1
ENV	Ernst Schulte	B1
ENV	Peter Löffler	B1
ESTAT	Marilise Wolf-Crowther	E2
JRC	Jesús San Miguel	H3
RTD	Doru Irimie	F3
SANTE	Diana Charels	E2
TRADE	John Bazill	D1

2. Meetings list

Kick-off meeting (11.6.2014)

1st Meeting of the WG (9.9.2014)

2nd Meeting of the WG (4.12.2014)

3rd Meeting of the WG (12.3.2015)

4th Meeting of the WG (4.6.2015)

5th Meeting of the WG (25.6.2015)

3. Mandate of the Working Group on Sustainable Forest Management Criteria & Indicators

1. BACKGROUND

The Communication on a New EU Forest Strategy COM(2013)659 states that the Commission, in close cooperation with Member States and stakeholders, should identify by the end of 2014 "objective, ambitious and demonstrable sustainable forest management (SFM) criteria that can be applied in different policy contexts such as climate change, bioenergy or bioeconomy, regardless of the end use of biomass".

This work is an important basis for monitoring the achievement of the 2020 objectives of the Forest Strategy towards ensuring and demonstrating that all forests in the EU are managed according to sustainable forest management principles and that the EU's contribution to promoting sustainable forest management and reducing deforestation at global level is strengthened. The work should take into account:

- The need to balance various forest functions, meeting demands, and delivering vital ecosystem services;
- The need for forestry and the whole forest-based value chain to be competitive and viable contributors to the bio-based economy.

The work will also be connected to the energy and climate change policy framework in the horizon of 2030¹ and to the implementation of the Bioeconomy Strategy² in so far as the identification of indicators³ for the sustainable management of forest is required under these policies. It will also be guided by the Council Conclusions on the new EU Forest Strategy.

The Council conclusions on the new EU Forest Strategy

- underline the importance of sustainable forest management to ensure the delivery of goods in a balanced way in a scenario of growing demands and endorse the Forest 2020 objective "to ensure and demonstrate by 2020 that all forests are managed according to sustainable forest management".
- recall existing SFM criteria and indicators developed by Forest Europe, and stresses that full advantage should be taken of these in applying them to different policy contexts. These criteria and indicators, the relevant policies, regulations and tools in place at EU, Member State or regional levels, and also the ecological, social and economic differences between Member States, the market-based tools for promoting sustainably produced forest products, such as certification schemes, as well as the situation of small forest holders should be taken into account when further analysing, applying and, only if needed, adapting criteria and indicators for SFM. Any process in this regard should be open and transparent, with broad participation of Member States and relevant stakeholders.

¹ COM(2014)15 final "A policy framework for climate and energy in the period from 2020 to 2030"

² COM(2012)60

³ **Criteria for SFM** characterise or define the essential elements or set of conditions or processes by which sustainable forest management may be assessed. **Indicators** are variables that show changes over time for each criterion and demonstrate the progress made towards its specified objective (source: MCPFE, 2002).

To carry out the above mentioned work, the Commission is setting up under this mandate a Working Group including representatives from the Standing Forestry Committee and from the Advisory Committee on Forest and Cork.

2. OBJECTIVES AND SCOPE OF WORK

The principal aim of the WG is to identify objective, ambitious and demonstrable sustainable forest management (SFM) criteria that could be applied to all forests. The corresponding indicators should be applicable for the purpose of different EU policies when there is a need to refer to sustainable forest management and its means of evidence. This approach would ensure that assurances of sustainability for all forests and their products (including forest biomass), could follow a coherent set of requirements and use the same evidence base regardless of end use.

The **first step** of the Working Group's activities concerns the existing criteria and indicators of Sustainable Forest Management (SFM) as e.g. provided for by work carried out under FOREST EUROPE and other relevant policies, regulations and tools in place, and the analysis of their application in the EU.

As a **second step**, the Working Group will examine and make recommendations on:

- Relevant criteria of Sustainable Forest Management with clear, measurable and simple indicators suitable to monitoring the achievement of the 2020 objective of the Forest Strategy;
- Means to facilitate the gathering of and reporting on data for those indicators, facilitating synergies with international and other reporting obligations;

Finally, as the **third and last step**, the Working Group will examine and express views on approaches and tools to provide sustainability assurance to forests and their products, including forest biomass, irrespective of the end use, e.g. market-based certification instruments, risk management approaches, equivalent means of proof of sustainable forest management.

Account should be taken of:

- practical implications for small forest owners and different ownerships as well as governance systems in the EU;
- relevant forest-related considerations, such as the long-term carbon pools and balances, forest health and resilience, biodiversity, resource efficiency as well as socio-economic functions;
- Regional circumstances and differences of forest types.

Indicators should be applicable in the EU, at national and sub-national levels, to all forest types, and ensure both consistency with international policies and commitments (such as international trade agreements) and allow, where appropriate, comparability. They should ideally provide the building blocks for possible subsequent development of criteria for downstream life-cycle phases of forest products and services.

3. MODE AND TIMING OF WORK

The WG will be composed of 20 experts, 14 from the Standing Forestry Committee (SFC) and six from the Advisory Group on Forestry and Cork (AGFC)⁴ and will be accompanied by several Commission representatives from relevant departments. The 14 members from the SFC could each be backed up by one other member of the SFC. The members of the AGFC should ensure the coordination with the stakeholder group they represent. The representative in the WG has to ensure exchange of information and presentation of ideas and comments from his back up members.

The WG may invite other experts to contribute on particular points.

All members are expected to contribute actively to the deliberations in the WG as well as by providing the necessary information.

The WG will meet at least four times back to back with the meetings of the SFC. Additional meetings can be called in, if necessary. Meetings will take place in Brussels and will be chaired by the Commission. The SFC and the AGFC will be regularly de-briefed about the state of play of the WG's activities. Discussion papers and documents will be made available to the SFC and AGFC in advance to allow all Member States and stakeholders to communicate their viewpoint and experience via the appointed members to the working group.

English will be used as the working language. To facilitate the work, the WG may appoint *rapporteur(s)* for specific subjects feeding into the final report.

4. EXPECTED OUTCOME

The outcome of this WG will be a report by June 2015 that will be discussed in both the Standing Forestry Committee and the Advisory Committee on Forestry and Cork.

⁴ In addition, experts from the AGFC on specific subjects can be called upon to present their expertise in the working group.

4. List of presentations

Kick off meeting	
Implementation of the pan-European Criteria & Indicators for SFM	Stefanie Linser & Bernhard Wolfslehner
1st Meeting	
Criteria & Indicators for SFM in Austria	Ingwald Gschwandtl Victoria-Christina Piribauer
C&I for SFM: data reporting and availability	Aljoscha Requardt (presented by Tanya Baycheva)
Indicators for Sustainable Forest Management and forest related policies of the European Union	Stefanie Linser
FOREST EUROPE Qualitative (policy) Indicators: reporting and data availability	Tanya Baycheva
Ensuring and demonstrating SFM in Finland	Teemu Seppä
Sustainable forest management implementation in France	Jonathan Saulnier
Sustainable forest management in Sweden	Ingeborg Bromée
Evidence of Sustainable Forest Management and Woody Biomass used for Renewable Energy – The UK Approach	Richard Howe
2nd Meeting	
SFM in Germany How Sustainable Forest Management is assured in Germany	Thomas Huber
Ensuring SFM : the case of the Walloon Region (Belgium)	Christine Farcy (UCL) & Christian Laurent (SPW)
Means and tools to promote Sustainable Forest Management (SFM) in Spain	Francisco Javier Adell Almazán
Sustainable forest management in Hungary	András Szepesi
3rd Meeting	
Ensuring and demonstrating SFM: Forest-based industry's view	Dr. Karoliina Niemi
Results of the Questionnaire No1 on Criteria & Indicators	Dan Burgar Kuželički
Interest of consumers on SFM	Nicolas Revenu
SFM in State forests and municipal forests	Martin Lindell
Forest owners' views on SFM criteria work	Janne Näräkkä
4th Meeting	
Results of the Questionnaire No2 on Criteria & Indicators	Dan Burgar Kuželički
5th Meeting	
EUFS 2020 Objectives Analysis of the implementation	Jonathan Saulnier
Proposals for WG recommendations	Teemu Seppä

5. Key concepts & Definitions

Criteria for SFM characterise or define the essential elements or set of conditions or processes by which sustainable forest management may be assessed (source: *Ministerial Conference for Protection of Forests in Europe, 2002*).

Forest(s): Forest is a land spanning more than 0.5 hectares with trees higher than 5 m and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. Other wooded land is a land not classified as forest, spanning more than 0.5 hectares; with trees higher than 5 m and a canopy cover of 5-10%, or trees able to reach these thresholds in situ; or with a combined cover of shrubs, bushes and trees above 10%. Neither forest nor other wooded land include land that is predominantly under agricultural or urban land use (source: *FAO- Global Forest Resources Assessment 2005; SEC(2006)448 Staff Working Paper on an EU Forest Action Plan*)

Forestry: The term forestry is considered to encompass the production of standing timber as well as extraction and gathering of wild growing forest materials. It also includes products which undergo little processing, such as wood for fuel or industrial use (source: *SWD(2013) 342 final, Commission Staff Working Document Accompanying the document COMMUNICATION FROM THE COMMISSION on a New EU Forest Strategy: for forests and the forest-based sector*).

Forest-based sector: Term covering forest resources and the production, trade and consumption of forest products and services. Throughout the text the term "forest sector" is used instead (source: *SWD(2013) 342 final, Commission Staff Working Document Accompanying the document COMMUNICATION FROM THE COMMISSION on a New EU Forest Strategy: for forests and the forest-based sector*).

Indicators for SFM are variables that show changes over time for each criterion and demonstrate the progress made towards its specified objective (source: *Ministerial Conference for Protection of Forests in Europe, 2002*).

Sustainable forest management (SFM): The stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems (source: *Ministerial Conference for Protection of Forests in Europe. Helsinki, 1993*)

6. Questionnaire nº1 for the members of the Standing Forestry Committee

Background

According to the mandate, the principal aim of the WG is to identify objective, ambitious and demonstrable sustainable forest management (SFM) criteria and corresponding indicators that could be applied to all forests for the purpose of different EU policies when there is a need to refer to sustainable forest management and its means of evidence.

This approach would ensure that assurances of sustainability for all forests and their products (including forest biomass), could follow a coherent set of requirements and use the same evidence base regardless of their end use.

Reaching agreement on a set of simple, robust, and meaningful criteria and indicators would give everyone – including policy- makers, investors, planners, forest owners, processors, marketers, consumers and managers – greater certainty about current and future resource status and requirements, thus cutting compliance, assessment, monitoring and reporting costs. Moreover, it could inform and guide ongoing and future EU policy development in all areas relevant to forests and the forest-based sector.

To identify the technically feasible and politically relevant criteria and indicators, the WG is analysing:

- What MS are doing to ensure and demonstrate SFM and how criteria and indicators are used;
- What EU policy needs are (presentation and working document on needs coming from different policies in the areas of rural development, environment, forest reproductive material and forest health, climate change, bioenergy, forest-based industries and the emerging bioeconomy);
- What the situation is for reporting and availability of the different indicators, both quantitative and qualitative (based on a number of research studies);
- What objective, ambitious and demonstrable SFM criteria and indicators would the WG recommend to match the purpose and specific objectives outlined above.

In order to have a complete picture of the different national systems in place to ensure and demonstrate SFM and to identify the technically feasible and politically relevant criteria and indicators, the Working Group considers appropriate to send to the members of the Standing Forestry Committee the questionnaire enclosed, for the time being not addressing the part related to the demonstration of SFM, which will be discussed in the next meetings of the Working Group. The results of the questionnaire together with the presentations from MS and stakeholders on the systems in place, from the Commission services on the EU policy needs and from the research community on the reporting and availability of indicators, will allow the Working Group to elaborate the recommendations, as agreed in the mandate.

We ask the members of the SFC to provide the answers to the questionnaire in one month time, by the **28th of February 2015**

I. SYSTEM IN PLACE TO ENSURE SUSTAINABLE FOREST MANAGEMENT (SFM)

1. Outline your national system to ensure the delivery of sustainable forest management (SFM). What are your national SFM objectives? Are there other subnational systems in place? Please explain both law and other soft-law instruments (max. 1 page)

2. Regarding information for monitoring and assessment of SFM, how is data collected?

- a. Through the National Forest Inventory
- b. Through other systems in place (please explain)
- c. Through a combination of NFI and other alternative instruments

(Please explain and provide the link, if available)

3. Are you using geographical information systems or other software?

4. Do you have a specific website? Please provide the link

5. What are the main challenges you face in trying to ensure sustainable forest management?

- a. Lack of information
- b. Lack of management
- c. Lack of resources
- d. Other
- e. A combination of the above

(Please explain)

II. CRITERIA & INDICATORS IN MEMBER STATES

6. What is the role of C&I in your national system to ensure SFM?

- a. To monitor forest policy

- b. To monitor other national policies
- c. To provide an input to other policies outside the forest sector
- d. To monitor the implementation of EU policies related to forests (i.e. Natura 2000, rural development, etc.)
- e. To communicate the principles of sustainable forest management and their application
- f. A combination of the above
- g. None of the above

(please explain)

7. Are you using Forest Europe C&I and reporting on them? Please provide details.

- a. Yes, we are using **all** Forest Europe C&I and reporting on them
- b. Yes, we are using **most** Forest Europe C&I and reporting on them
- c. Yes, we are using **some** Forest Europe C&I and reporting on them
- d. Yes, we are using Forest Europe C&I but we are not reporting on them
- e. No, we are not using Forest Europe C&I

8. What other criteria and/or indicators are you using? Please provide details.

9. Do you have targets or thresholds for some of the criteria and/or indicators? If so, what are those? Please provide details.

10. What are the means to gather and report on C&I?

- a. Same answer as question 2
- b. Other information sources specific to C&I (please provide details)

III. CRITERIA & INDICATORS IN THE FRAMEWORK OF EU POLICIES

The corresponding SFM indicators should be applicable for the purpose of different EU policies when there is a need to refer to SFM and its means of evidence in a way linkable to subsequent life-cycle

phases. This approach would ensure that assurances of sustainability for all forests and their products (including forest biomass), could follow a coherent set of requirements and use the same evidence base regardless of end use.

The needs identified so far arising from the different EU policies regarding SFM criteria and indicators are the following:

- Rural development: support to assess the contribution from forestry measures to forest area development and sustainable forest management.
- Environment: contribute to assess the implementation of the targets of the Biodiversity strategy and other relevant environmental legislation and to monitor the progress.
- Forest reproductive material and forest health: monitoring of forest health and of pests causing forest damage.
- Energy and climate change : in the framework of the Climate Change and Energy 2030 package, identification of a set of workable and demonstrable EU-wide SFM indicators at the appropriate level to demonstrate the sustainability of forest management in the context of a post-2020 EU climate and energy policy framework. Identification of the sustainable levels and trends of biomass for carbon sequestration, carbon stocks and biomass and evaluation of adaption to climate change of EU forests.
- EU forest-based industries and the emerging bioeconomy: identification of approaches and tools to provide sustainability assurance for forest-based biomass and its derived products along their respective value chains.

On top of that, this work will support the monitoring and assessment of the New Forest strategy 2020 objectives

11. Among Forest Europe C&I what are, according to your view, the most relevant indicators, in particular for monitoring the 2020 forest objective of the strategy?

12. Do you think that further indicators would be necessary for some of the EU policies underlined above? Which ones? Please explain.

13. Could you give us a short list of key indicators, suitable for the general reflection of the sustainable management of forests in your country? (max. 5-10). Would you propose any thresholds or targets for those indicators? Please explain.

7. Questionnaire nº2 for the members of the Standing Forestry Committee: HOW TO DEMONSTRATE SUSTAINABLE FOREST MANAGEMENT

Deadline for submission: 30.4.2015

According to the mandate, the Working Group should examine and express views on approaches and tools to provide sustainability assurance on forests and their products, including forest biomass, irrespective of the end use, e.g. market-based certification instruments, risk management approaches, equivalent means of proof of sustainable forest management. In previous questionnaire respondents were asked to reflect on indicators, should be applicable in the EU, at national and sub-national levels, to all forest types, and that could ensure both consistency with international policies and commitments (such as international trade agreements, multilateral environmental agreements, etc.) and should allow, where appropriate, comparability. According to the mandate of the WG they should ideally provide the building blocks for possible subsequent development of criteria for downstream life-cycle phases of forest products and services.

The Non-paper on Approaches and tools to provide sustainability assurance to forests and their products should be used as background when replying to this questionnaire. We ask the members of the SFC to provide the answers to this second questionnaire by the 30th of April 2015.

1. What is, according to your view, the most appropriate level to demonstrate SFM for forests and their products (e.g. EU, national, subnational, management unit)? Why?

2. What are, according to your view, the preferable approaches based on the possible options below, in demonstrating SFM and why? Please explain the approach/es, pros and cons and how they may be combined.

a. Background on National legislation

b. European legislation

c. Voluntary market-based instruments, such as certification

d. Risk-based approach

f. Others

8. Report of the analysis of responses on Questionnaire nº1

The questionnaire was devised to have a complete picture of the different national systems in place to ensure and demonstrate SFM and to identify technically feasible and politically relevant criteria and indicators.

Questionnaire consisted of 3 parts:

- Part I – Systems in place to ensure sustainable forest management,
- Part II – Criteria & Indicators in Member States,
- Part III – Criteria & Indicators in the framework of EU policies.

Member States were asked to reply with information on all three parts of the questionnaire, while stakeholders were asked to provide input only to Part III.

We had received and analysed replies from 25 Member States, in total 26 responses as one Member State due to shared competences provided two replies. In addition we also received replies on Part III from 5 stakeholders.

Part I: Systems in place to ensure sustainable forest management

Question 1. Outline your national system to ensure the delivery of sustainable forest management (SFM). What are your national SFM objectives? Are there other subnational systems in place? Please explain both law and other soft-law instruments.

Analysis of the responses to the Questions 1, is due to its many subquestions presented separately for each subquestion.

Outline your national system to ensure the delivery of sustainable forest management (SFM)

Replies by respondents provided insight about the situation in each Member States in relation to SFM, and showed that Member States are ensuring the delivery of SFM through different pieces of legislation, national strategies or national forest programs. Through these arrays of frameworks, Member States are guaranteeing multifunctional and sustainable forest management.

Further on, legislation is in some cases introducing requirements, such as management plans, permissions for felling, limitations to carry out certain activities (e.g. clear-cut above certain size), drainage, or other interference which may have significant consequences for ecosystems). In some cases permission to carry out activities is required, unless these activities are covered by the management plan.

Responses also indicated that some Member States have rules regulating harvesting, e.g. request for harvesting has to be filled in and checked if it complies with general principles of SFM. Harvesting should in some MS also take account of close-to-nature approach, that use of wood complies with potentials and capacities of forests obligation to regenerate after the felling, and that areas of special importance must be preserved.

What are your National SFM objectives?

Replies analysed showed that National SFM objectives differ amongst Member States regarding the level of defines of objectives. Some MS set broader and more general SFM objectives, e.g.

sustainable development of the sector, strengthening the role of forests in ensuring economic prosperity, to more specific SFM objectives in other Member States. In these cases Member States provide a list of specific objectives, such as commitment of forest owners to SFM, increase the forest area, production of wood and non-wood goods, carbon stock, and others.

Are there other subnational systems in place?

Subnational systems are in place mostly in Member States in which existing system of functioning is split on national and subnational / regional level. In these cases, results show that Member States have broader and more general plans and legislation on national level, and more defined plans and legislation on subnational or regional level.

Please explain both law and other soft-law instruments

Few Member States developed guidelines or examples of good practices to explain SFM to forest owners and other interested users, to manage their forests.

One of the frequently mentioned ways to promote SFM is certification. Few respondents expressed that many forest owners decide to certify their forests.

Question 2. Regarding information for monitoring and assessment of SFM, how is data collected?

Majority of respondents indicated that Member States use National Forest Inventories to gather information for monitoring and assessment, in combination with other methods, such as: phytosanitary information, health and vitality information, aerial photography, satellite data, information from Forest Administration, individual certification schemes.

Question 3. Are you using geographical information systems or other software?

Almost all Member States are at least in one part of the process of monitoring and assessment of SFM using GIS. In case of one Member State they developed their own system.

Question 4. Do you have a specific website? Please provide the link

In most Member States information are publicly available on the website. Few respondents indicated that some or all of the information are not available to public, and that non-public information has to be requested.

Question 5. What are the main challenges you face in trying to ensure sustainable forest management?

Respondents, in this question, identified main challenges to ensure SFM, with selecting one possibility amongst following options: lack of information, management, resources, combination of all three, or other. In some cases MS indicated, that next to one of the three main challenges also other challenges exist. In these cases two responses were identified for MS, and thus the total number of responses identified for this question is higher than the number of total respondents.

Mostly expressed challenges:

Lack of information

2 respondents indicated that problems with indicators, especially how to develop them and how to measure their effectiveness against the SFM and having difficulties obtaining information for some indicators.

Lack of management

2 respondents indicated that lack of management causes biomass accumulation, which can in turn cause forest fires, land fragmentation and lack of management in the early phases of the growth causes problems at the later growing stages and due to reinstitution huge areas of forests are not managed.

Lack of resources

5 respondents indicated that lack of resources (financial and human) causes delays in gathering and processing of information.

Combination of all three (Lack of information, management, resources)

12 respondents indicated that combination of lack of information, management and resources pose a challenge to ensure sustainable forest management.

Other

12 respondents also stated other challenges, e.g., damage from storms, pest and disease, illegal logging, low economic profitability makes problems when involving owners, growing demand and sometimes contradicting wishes from society and damages from the animals, fragmentation, simplified certification requirements, etc.

PART II - Criteria and Indicators in Member States

Question 6. What is the role of C&I in your national system to ensure SFM?

Each respondent could choose one response, selecting the reply that most fully reflects the situation in Member State.

The majority, 73% of replies indicate that the C&I are used for combination of reasons (monitoring forest policy, monitoring other national policies, provide input to other policies outside the forest sector, monitor implementation of EU policies related to forests, communicate the principles of SFM and their application). 11% of respondents indicated that the main role of C&I is to Communicate the principles of SFM and their application. 8% respondents indicated that the role of C&I is to monitor forest policy, while 8% replied that there is no role of C&I on MS level.

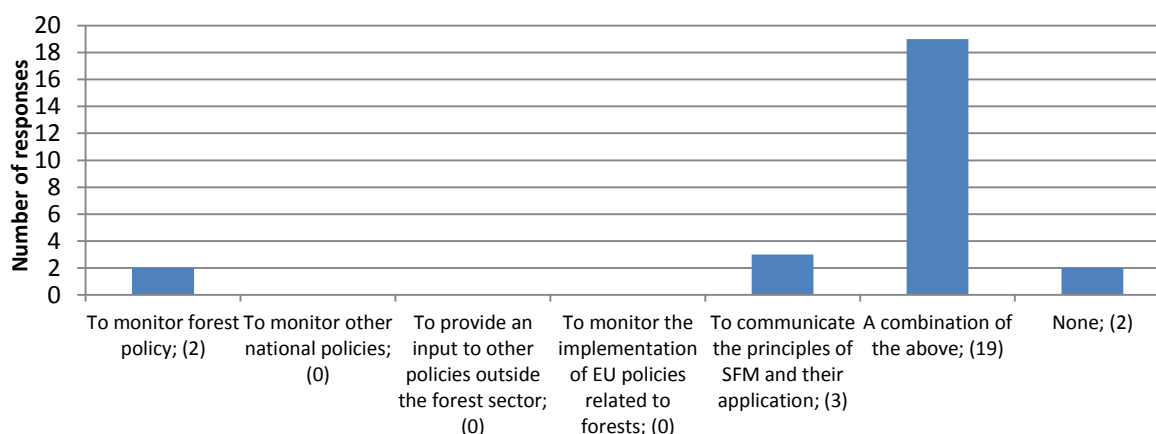


Figure 1: Replies on the role of C&I in national system to ensure SFM (total replies: 26)

Respondents also provided additional comments, which show that some Member States use C&I as a tool for orientation of management of forests, to track the progress towards the conservation and sustainable management of forest and also for monitoring of trends.

Few responses showed that C&I are used to monitor the development of forests and SFM in an international comparable context and facilitate the communication on these matters.

Question 7. Are you using Forest Europe C&I and reporting on them?

Respondents indicated that 61% of them are using most of FE C&I and also reporting on them. 19% are using all FE C&I, while 8% are using some, and 8% are using them but are not reporting on them. Only 4% indicated that they are not using any FE C&I.

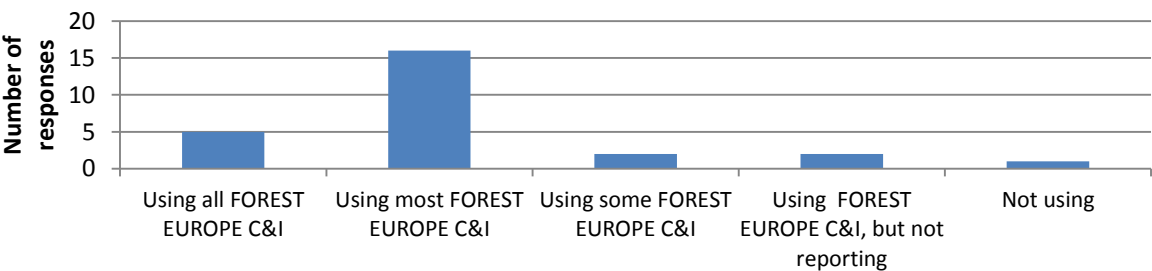


Figure 2: Replies indicating whether respondents are using FE C&I and whether they report on them (total replies: 26).

Question 8. What other criteria and/or indicators are you using?

Respondents indicated, that next to the current FE C&I they are in many cases using additional criteria and / or indicators. To name just a few:

- ❖ species distribution and trends in species populations,
- ❖ areas under certification schemes,
- ❖ recreation in forests,
- ❖ area of thinning, cleanings, under regeneration, area of afforestation, reforestation,
- ❖ energy production from woof fuels,
- ❖ gaming and grazing activities,
- ❖ use of forest area for other purposes,
- ❖ monitoring occurrence of pests,
- ❖ building with wood,
- ❖ Natura 2000 forests,
- ❖ national classification of forest sites, etc.

Question 9. Do you have targets or thresholds for some of the criteria and/or indicators?

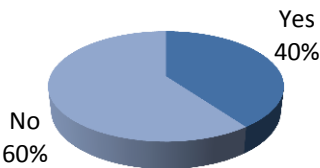


Figure 3: Responses indicating whether there are targets or thresholds on Member State level (total replies: 25)

Respondents indicated that 40% of them have targets or thresholds on Member State level. These are mostly set for: forest area, keep the number of damaged trees low, increase of added value on forestry employee, tending of seedlings.

60 % of respondents indicated that there are no targets or thresholds on Member State level. In some cases they are monitoring trends or positive changes. In few cases it appeared that although response is NO, there still have one target (forest area), but no others.

From reply of one respondent, it was not clear whether they have targets or not.

Question 10. What are the means to gather and report on C&I?

Majority of respondents indicated that the way to gather reports on C&I is a combination of National Forest Inventory with other sources.

Part III: Criteria & Indicators in the framework of EU policies

Member States replies:

Question 11. Among Forest Europe C&I what are, according to your view, the most relevant indicators, in particular for monitoring the 2020 forest objective of the strategy?

Majority of respondents indicated that FE C&I are completely, or in part, relevant for monitoring the 2020 forest objective of the strategy. Some respondents also provided the list of the indicators they find most relevant. It was evident from some responses that existing FE C&I provide consensus and should be analysed and used as whole and not split.

Only few respondents didn't provide response to this question, but expressed that need for further clarification is needed, why current tools are deemed insufficient and why this kind of processes is needed, as the review of FE C&I is already taking place under Forest Europe process. The opinion expressed was that duplication of work should be avoided and that we should wait for results of the FE exercise.

In addition a proposal was made that indicators should not be used at all, and that FE C&I should not be used for EU policies, but other ways to monitor should be developed on EU level.

Stakeholders replies:

Question 11. Among Forest Europe C&I what are, according to your view, the most relevant indicators, in particular for monitoring the 2020 forest objective of the strategy?

Replies from stakeholders show the opinion that the FE C&I provide for holistic approach to SFM and leaving one out will distort the balance. Current FE C&I can also be a good starting point to be used in EU policies.

One stakeholder expressed that it is not clear how and for what the indicators will be used by the Commission.

Member states replies:

Question 12. Do you think that further indicators would be necessary for some of the EU policies underlined above? Which ones?

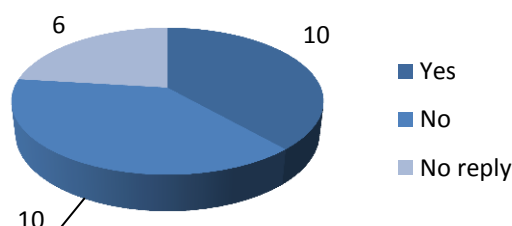


Figure 4: Responses indicating whether there are further indicators needed for some of the EU policies? (Total replies: 26)

10 respondents expressed opinion that there is need for further indicators, and proposed the following indicators: climate change, desertification, regeneration, area of unmanaged forests, trainings, biodiversity, forest hunting balance, funding levels, desertification, protection functions should be split to cover sub-functions etc.

10 respondents expressed opinion that there is no need for further indicators. The reasons mentioned were, that FE is already covering the topic substantially and that there is possibility to include EU policies in current scope of FE C&I. Response also indicated that there is no need for EU SFM C&I as there is no EU forest policy and that no new indicators are needed, however the old ones should be modified.

6 respondents did not provide information on this question.

Stakeholders replies:

Question 12. Do you think that further indicators would be necessary for some of the EU policies underlined above? Which ones?

All 5 stakeholders agreed that further indicators are necessary for some of the EU policies. To state the proposed indicators: trade in wood (with balance of import and export), indicator on land changes (degradation / desertification), value of forest ecosystem services, avoided fossil fuels by using forest biomass, mobilisation of biomass, indicator of innovation, indicator for conversion efficiency of wood based energy), indicator on consultation and communication with local communities.

One stakeholder also stated that C&I should be coherent with objectives and targets of the EU 2020 strategy.

Member States replies:

Question 13. Could you give us a short list of key indicators, suitable for the general reflection of the sustainable management of forests in your country? (max. 5-10). Would you propose any thresholds or targets for those indicators?

72% of respondents provided proposals for key indicators, suitable for the general reflection of the SFM, 4% respondents proposed new ways of monitoring EU policies, 24% respondents did not provide input to this question. Figure 5 shows the list of 10 key indicators, which were the most frequently mentioned.

On thresholds most respondents didn't propose thresholds or targets. Some stated that the first step

should be to update current indicators and at the later stage work on setting the thresholds, while others were of opinion that it is hard to set thresholds that will be applicable for all types of forests.

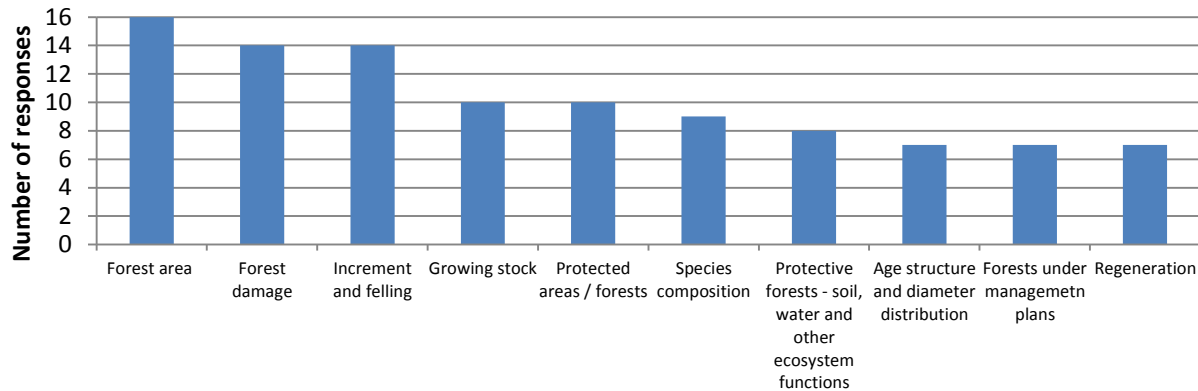


Figure 5: Key 10 most mentioned indicators proposed by respondents (Total replies: 19)

Stakeholders replies:

Question 13. Could you give us a short list of key indicators, suitable for the general reflection of the sustainable management of forests in your country? (max. 5-10). Would you propose any thresholds or targets for those indicators?

80% of the responses from stakeholders proposed the key indicators that are suitable for the general reflection of the sustainable management of forests. Figure 6 shows the list of 10 key indicators, which were the most frequently mentioned.

On thresholds there were two comments from stakeholders about the thresholds. One stakeholder expressed concern that there is no baseline and expected outcomes set for indicators, while another expressed that baseline and threshold should be set on MS or regional level, and that it should be reported on MS or regional level.

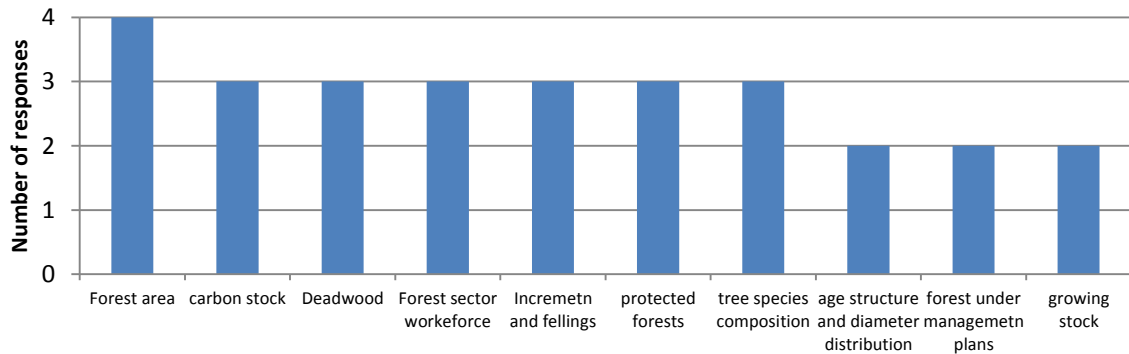


Figure 6: Key 10 most mentioned proposed indicators by stakeholders (total replies: 4)

9. Report of the analysis of responses on Questionnaire n°2

The questionnaire n°2 was devised to gain a complete overview of different approach to demonstrate SFM of forests and their products. The questionnaire consisted of two questions, the first one inquiring about the "*most appropriate level to demonstrate SFM*" and the second question inquiring about the "*appropriate approach to demonstrate SFM*".

We had received and analysed replies from 25 Member States and in addition we also received replies from 5 stakeholders, with 3 providing input, 1 informing that they will not be able to reply due to the need to establish a consensus and 1 informed us that they agree with the issues already raised.

Question 1: What is according to your view, the most appropriate level to demonstrate SFM for forests and their products (e.g. EU, national, subnational, management unit)? Why?

Respondents were required to indicate the most appropriate level to demonstrate SFM. On the following two figures we present the summary of responses received from Member States and stakeholder groups.

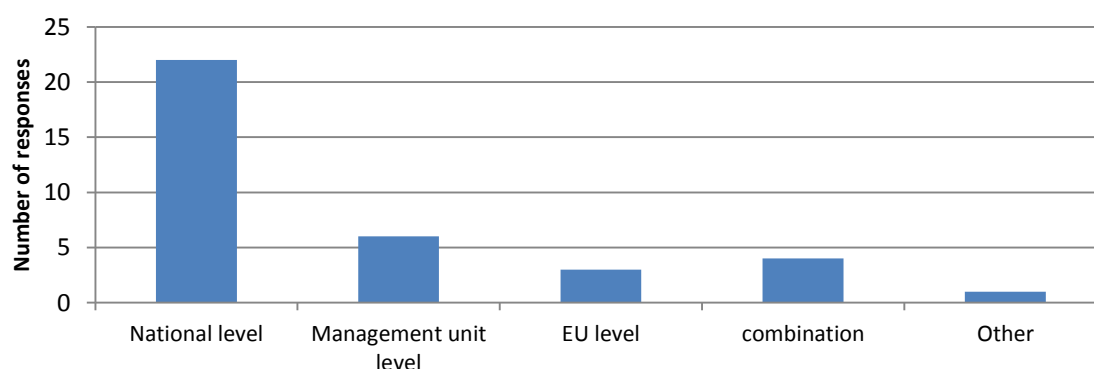


Figure 1: The most appropriate level to demonstrate SFM for forests and their products – replies by Member States (The total number of responses doesn't correlate with the number of replies, as some Member States indicated combination of levels).

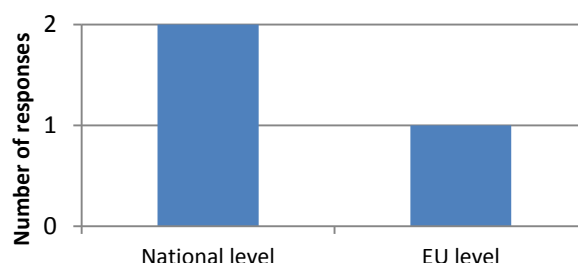


Figure 2: The most appropriate level to demonstrate SFM for forests and their products – replies by stakeholder groups (3 responses)

Responses were further analysed for each level, such as management unit level, national level or EU level, etc., by addressing the pros and cons of the different levels. In the analysis the responses of Member States are merged with responses from stakeholder groups, as the replies and argumentation didn't differ significantly.

- **Forest Management unit (FMU) level**

6 responses from Member States indicated that forest management unit level is the most appropriate as it was considered having an advantage being on a local level, so it can take into account local conditions and specificities. In addition this is the level on which sustainable forest management is carried out, especially silvicultural operations, through which we get expected results from maintaining the biodiversity, productivity, regeneration capacity and vitality of forest. Responses also indicated that trends of development of forests should also be followed on the lowest possible level.

Responses also underlined that management unit might not always be appropriate as units are often too small and generally varying in size, which is preventing applying all criteria and indicators on each unit, neither are all objectives imposed on every unit at all times. Monitoring and reporting, to get a meaningful picture on development of trends on the unit level, especially for issues like growing stock, biodiversity, carbon stock, will be therefore harder and also technically unfeasible, or will require considerable administrative effort and financial input. Amongst other reasons it was expressed that each management unit should have its forest management plan or equivalent instrument, with all information and data that are necessary to carry out sustainable forest management. To have such plans in place, for all management units, will be particularly difficult and could present a significant financial burden, especially for small forest owners.

- **National level**

The majority of the replies (22) from Member States and 2 from stakeholders referred to the national level as the preferred level to demonstrate SFM of forest and their products, although some noted that at this level, it would not be possible to prove SFM for procurement policies. The responses stressed that forest related policy is competence of Member States. In addition, already existing national legislation, regulations and SFM is implemented on this level and, when necessary, revised and further developed. In preparation or revision of national legislation, the thorough involvement of different groups, and balances of the various uses of forests are taken into account, ensuring national conditions and specificities are well reflected. Moreover international obligations are transposed at national level and legislation fully follows the multi-functionality approach towards sustainable forest management. Respondents also indicated that depending on the governance system of Member State or in case of countries with higher percentage of forested area and / or bigger diversity of forests, the subnational levels could also be possible and appropriate level, to facilitate the work and coordination.

Responses also showed that national legislation includes additional guidelines and requirements for monitoring, which have to be followed. Data gathered on national level are processed, and can be

later used for reporting under different international obligations. These data (National Forest Inventories and other forest-related information sources) allow for good comparison between countries, if they follow same definitions and methodology.

Cons identified in responses are possible lower coordination amongst Member States. Lack of orientation and cooperation when addressing common issues causes differences in national legislative frameworks addressing SFM in diverging ways with different objectives and goals. Non-harmonised demands and verification systems, set on national level, can hinder trade in forest based products.

- **EU level**

3 replies from Member States and 1 from stakeholder groups indicated that the EU level was the most appropriate, considering the already existing EU legislation, which to some extent addresses sustainability issues of forests and their products. These EU regulations and agreements have set a general framework and are supported by forest related guidelines, which addresses specific aspects of forest and forestry. Requirements set out at EU level are needed and will help successful implementation of the EU Forest Strategy and its Multiannual Implementation Plan. In addition, it was expressed, that requirements on EU level, can create a level playing field for trade of solid biomass without undesirable effects on the internal market. Having only one system that requires compliance, will be cost-efficient approach for operators. It was underlined by one stakeholder group that subsidies for bioenergy do have an effect on the internal market of raw materials, and future criteria should be the basis to assess to what extent SFM can provide evidence for its sustainable use.

In addition demonstration at EU level can be a good opportunity to demonstrate SFM on a higher policy level, but should be built on contributions from Member States.

Some possible disadvantages were identified in responses of an EU level, referring to possible additional bureaucratic and administrative burdens that demonstration on EU level might create. It was underlined that it could be hard to get a full picture of situation and well reflect the national aspects of forest and forestry, due to different forest types and different arrangements in MS countries. The responses recalled that although there are some EU policies that have an impact on forests and forestry, there is not an EU forest policy, which addresses all aspects of forests, and that forestry is competence of Member States. It was mentioned that EU level legislation would need to bring added value to existing approaches – an EU approach that only support the status quo without addressing the current challenges would not necessarily advance SFM.

- **Other levels to demonstrate SFM**

There was 1 other level proposed by a Member State, stating that for demonstrating SFM of forests, such as micro-regions, which will be somewhere between regional and management unit level, which will gather areas with similar characteristics (climate, vegetation, etc.) and form one micro-region, thus enabling comparison and following the trends.

Question 2: What are, according to your view, the preferable approaches based on the possible options below, in demonstrating SFM and why? Please explain the approach/es, pros and cons and how they may be combined.

The responses gathered, provided a good overview of pros and cons for each of the approaches, and their possible use in demonstrating SFM for forests and their products. The responses of Member States and stakeholder groups are presented together, as there was no significant difference in responses. It was also not possible to analyse which the preferred approach is, as with few exception, respondents only provided a factual and detailed analysis of pros and cons.

a. National legislation

Responses showed the pros of the national legislation as a possible approach to demonstrate SFM referring to possibility of national legislation to fully address the complexity of sustainable forest management and reflection of national situations and peculiarities, especially in silviculture. The advantage of national legislation is also that it sets legally binding conditions, and where the country is signatory to international agreement, it requires the transposition of requirements and definitions. Guidelines for implementation are developed, and national legislation sets out the obligations and rules for monitoring and reporting. In addition it puts in place all the necessary institutions to ensure compliance with legislation.

The cons of the national legislation is that in case of lack of harmonisation, these makes it cumbersome for EU and non-EU countries and their operators, to ensure a consistent approach when demonstrating SFM of their forests and products, especially when it comes to exports. Other cons of national legislation are that there is sometimes a lack of recognition of the forestry sector and activities that are being carried out to ensure SFM by other sectors. In addition responses showed, that additional measures such as measures regarding public procurement, information to forest owners and managers might be needed.

b. European legislation

The pros of the EU legislation as one of approaches were that EU legislation is important to support implementation of EU Forest Strategy, ensure proper coordination between EU regulations and different sectors (such as agriculture, environment, etc.) and inside the sector too. In addition responses showed that EU level can provide orientation and strengthen national policies and strategies for implementing SFM. This could create a standardised and harmonised approach to SFM and a level playing field, with established minimum common basis at EU level, important especially for imports of biomass. There is also existing EU legislation, which is addressing some aspects of forests, one of such is EUTR, which can be used for all wood and most wood-based products placed on the EU market, so there is no need to establish additional instruments.

The cons of EU legislation as an approach were put forward, stating that there is already existing national legislation and there is risk EU forest legislation may not respect the subsidiarity principles. In addition it was pointed out that EU legislation might not reflect differences of forests in all countries. It needs to be taken into account though, that EU legislation (notably nature legislation) does already apply to the national legal frameworks and needs to be implemented.

c. Voluntary market-based instruments, such as SFM certification

The pros of the voluntary market-based instruments as one of approaches were that they can be used by governments, operators and consumers to demonstrate SFM and help towards achieving SFM goals. Further, it can be an additional indirect way to stimulate improved forest management, as it encourages additional measures, which may lead to added benefits. It is a tool for awareness raising of general public about activities carried out to ensure SFM, and to inform consumers and give them further information and choice. Certification is important as it enhances the role forest owners are having in sustainable management of forests. In addition certification can be used for locally produced wood and for the imports from third countries, provided that an international scheme is applied and chain of custody control is used.

Certification is market-based approach, outside legislation, and is used if needs are expressed by the market and as such it was considered that it should not be a pre-requisite of sustainability, but can be used as part of the system to ensure compliance with legal criteria.

According to the replies, the cons of the voluntary market-based instruments as an approach are that the requirements of various certification schemes are different amongst each other and can change over time. Certification is also not applying to all forests and might give only a partial picture of compliance with SFM requirements, as this doesn't mean that forests which are not certified are not managed sustainably. Forest certification also has additional costs, which can be challenging for small forest owners.

d. Risk-based approach

Responses on pros of the risk-based approach were that it can be used for enforcement, monitoring and verification of existing legislation, especially of its implementation. Risk-based approach can also be used when preparing forest management plans or equivalent instruments, especially in the process of elaboration of measures. It can, in addition, be used for preparation of legal measures, as it targets issues where more efforts are required.

A risk-based approach gives information on areas and issues and if there are problems or not, allowing that efforts are targeted and customised, enabling to achieve better results, and cutting unnecessary bureaucracy and costs. However in the initial phase it can also generate costs where risks are negligible, as screening of all issues, to obtain an overview of issues with high and negligible risk, requires administrative effort. It allows for flexibility, as it applies to level depending on the degree of risk, with level of burden of evidence and details required and provided to prove that a product or forest is managed accordingly to SFM, depends much on the risk-profile.

The cons of this approach are that it should be in line with legislation, with some of the legislation not allowing for risk based approaches, e.g. non-compliance would not only mean high risk, it is a breach of legislation, questioning the legality of the forest management per se. However it can be used in complementarity with formal tools and or simultaneously with other approaches, such as for example SFM certification. However it cannot be in contradiction with legislation or replace

legislation. To put in place all the necessary mechanisms for risk-based approach, can be time consuming for administration and cause additional costs.

e. Others

In responses to the question also other approaches were indicated such as need for better cooperation between forest education institutions and forest services to ensure good implementation of mandatory and voluntary SFM measures and all data on SFM should be published and easily accessible for general public. For better information sharing integrated environmental and economic accounts for forests can be used as additional EU level information source. Additional approaches to demonstrate were also to have a good and reliable forest inventory and National Forest Programmes

Although through responses it was clear that they are applicable for both forests and their products, there were other approaches indicated applying specifically to forest products. It was expressed that if products come from forest that is managed accordingly to forest and environmental legislation, they should be classified as sustainable. In case of further interests by consumers, voluntary marked-based instruments, such as forest certification, can be utilized to demonstrate that products come from forest which is managed accordingly to requirements of the certification scheme. In case of international trade, appropriate level to demonstrate the sustainability of products is EU level, to enable the level playing field. There are already existing instruments and available tools, such as FLEGT and EUTR or certification, which can be used, as we should avoid creating new and additional instruments. In case of EUTR it ensures that only legally sourced timber is placed on the market, which also applies for imported biomass.

10. Approaches and tools to demonstrate sustainable forest management

2. EU legislation

The Working Group looked at and discussed a number of EU legal acts that address forest sustainability issues:

2.1. EU Timber Regulation (EUTR)

This Regulation is based on the 'due diligence' concept according to which operators undertake a risk management exercise so as to minimise the risk of placing on the market of illegally harvested wood or wood-based products derived from such wood. The scope of EUTR includes energy wood and it is applied to domestic as well as products imported from third countries. This legal act underlines that illegal logging is a pervasive problem of major international concern, posing a significant threat to forests as it contributes to the process of deforestation and forest degradation, which in some cases has been estimated to be responsible for up to 17,5% of global CO₂ emissions, threatening biodiversity, and undermining sustainable forest management., as well as resulting in evasion of tax return to states afflicted and loss of income for holders' of land tenure rights.

‘Legally harvested’ means harvested in accordance with the applicable legislation in the country of harvest. The scope of “applicable legislation” is defined by the Regulation. Hence, the national definition of legality is set from the legal and regulatory requirements that must be met in the country of harvest.

Although this Regulation does not make it mandatory to supply “sustainably harvested”, it does embrace aspects of sustainability as the list of applicable legislation to be considered includes reference to a broad range of laws that are important for a comprehensive approach to / to sustainable forest management (i.e. wood harvesting, including environmental and forest legislation including forest management and biodiversity conservation, where directly related to wood harvesting).

The review of the EU Timber Regulation is being undertaken in 2015.

2.2. EU FLEGT Action Plan

The European Union Action Plan for FLEGT from 2003 aims to improve governance and reduce illegal logging by improving governance and strengthening legal forest management and encouraging trade in legally sourced wood. Its long term perspective is to improve SFM. Measures in the Action Plan are designed to increase both the demand for legal timber (EU Timber Regulation, Public Procurement Policies; support to private sector initiatives; measures to avoid investment in activities that encourage illegal logging) and the supply of legal wood (VPAs, technical and financial support to wood exporting countries).

EU FLEGT Regulation and negotiated voluntary partnership agreements

The internal EU legal framework for the FLEGT scheme is the Regulation adopted in December 2005, supported by the 2008 Implementing Regulation, allowing for the control of the entry of roundwood,

sawnwood and plywood to the EU from countries entering into bilateral FLEGT Voluntary Partnership Agreements (VPA) with the EU.

A VPA is a legally binding trade agreement between the European Union and a wood-producing country outside the EU. The purpose of a VPA is to ensure that wood and wood-based products exported to the EU come from legal sources. The agreements also help wood-exporting countries stop illegal logging by improving governance of the forest sector. As such the agreements also promote better enforcement of forest laws and promote an inclusive approach involving civil society and the private sector.

Six countries have signed VPAs with the EU and are currently developing the systems needed to control, verify and licence legal wood. These countries are known as 'VPA partner countries'. Nine more countries are in negotiations with the EU, in addition another eleven countries in Africa, Asia and Central and South America have expressed some interest in exploring VPAs.

Each VPA defines 'legal timber' based on the laws and regulations of the partner country. The national legality definition, developed through consultations with all relevant stakeholders from private sector and civil society, sets out the legal and regulatory requirements that must be met before a FLEGT licence can be issued, so that the wood can be exported to the EU. The laws included in VPA legality definitions generally cover the economic, environmental and social aspects of forest management and wood processing and trade. The definition also provides criteria, indicators and verifiers to be used for checking compliance with those laws.

Each country entering into a VPA designs and develops its own legality assurance system (LAS), based on its existing control mechanisms and legislative framework surrounding the agreed legality definition. The LAS is a central part of a VPA between the EU and a wood-exporting country outside the EU. The LAS is designed to identify, monitor and licence legally produced wood, to ensure that only legal wood is exported. Although the VPA is a bilateral agreement with the EU, the partner country may choose to set up a system that can be used to verify the legality of wood exports for all markets as well as the domestic market. Most of the concluded VPAs have adopted this approach, with the exception of Central African Republic who will include the domestic market at a later stage.

2.3. EU Rural Development Regulation

Forestry is an integral part of rural development. The Rural Development Regulation (RDR) underlines that support for sustainable and climate friendly land use should include forest area development and sustainable management of forests. It is also highlighted that forestry measures should contribute to the implementation of the EU Forest Strategy.

In order to ensure that the measures contribute to the EU policy objectives, the Regulation requires that for holdings above a certain size, to be determined by the Member States in the programme, support shall be conditional on the presentation of the relevant information from a forest management plan or equivalent instrument in line with sustainable forest management as defined by the Ministerial Conference on the Protection of Forests in Europe (FOREST EUROPE) of 1993. The Rural Development Programmes (RDP) go through a very tight scrutiny before being adopted by the Commission. This is to make sure that the forestry measures meet the requirements of the Rural Development Regulation and to other EU legislation, such as environmental legislation. The EU RDR

can thus be considered as a robust system that is already in place to ensure that forests within the EU that receive any form of RDP funding are managed in a sustainable way.

It is worth also referring to the new Agricultural Block Exemption Regulation (ABER) and new Guidelines for State Aid in the agricultural and forestry sectors and in rural areas 2014 to 2020 (GL) . ABER allows the granting of certain categories of State aid to the agricultural and forestry sectors and in rural areas without prior notification to the Commission. The GL aim at setting the general criteria, which will be used by the Commission when assessing the compliance of aid with the internal market. These new rules have applied from July 1, 2014. All national forest-related State-aid schemes are notified to the Commission in accordance with the Guidelines for State aid in the agricultural and forestry sectors and in rural areas 2014 to 2020, and tightly scrutinised against the EU legislation before being approved by the Commission.

2.4. EU Nature legislation

An important and fundamental criterion for sustainable forest management in the EU is the respect of EU nature legislation, including Natura 2000 provisions. The Birds Directive and the Habitats Directive are the two main underlying pieces of legislation.

The Birds Directive protects all of Europe's wild birds. It asks Member States to designate 'Special Protection Areas' for 194 particularly threatened and all migratory species. It bans activities that directly threaten birds. It limits the number of bird species that can be hunted and the periods during which they can be hunted.

The Habitats Directive ensures the conservation of rare, threatened or endemic species including some 450 animals and 500 plants. It also protects some 200 rare and characteristic habitat types.

The Habitats Directive also establishes Natura 2000, the EU's network of nature protection areas. Natura 2000 aims to assure the long-term survival of Europe's most valuable and threatened species and habitats. It comprises of both the Habitats Directive's 'Special Areas of Conservation' and the Birds Directive's 'Special Protection Areas'. For these areas it provides safeguards against potentially damaging developments.

Active management of forests in Natura 2000 sites is principally possible - and in specific cases even needed - but it must respect any of the site-specific conservation objectives.

Considering SFM a key indicator in the context of EU nature legislation is the 'conservation status of forest species and habitats of Community interest', which forms part of the core set of EU biodiversity indicators. EU member states are monitoring this indicator under Article 17 of the Habitats Directive. The results of their assessments are published on Eionet and they have also been included into the new 'SOER 2015' report ('The European environment — state and outlook 2015').

This indicator allows checking progress against the target 3b of the EU Biodiversity Strategy which is to deliver a measurable improvement in the conservation status of forest species and habitats. According to the new SOER 2015 report, despite the efforts to halt loss of biodiversity 80% of forest

habitat assessments of Community interest under Natura 2000 still have unfavourable conservation status .

One stakeholder group stressed that many environmental trends in the Union continue to be a cause for concern, not least due to insufficient implementation of existing Union environmental legislation. Only 17% of species and habitats assessed under the Habitats Directive have favourable conservation status, and the degradation and loss of natural capital is jeopardising efforts to attain the Union's biodiversity and climate change objectives.

2.5. 7th Environmental Action Programme

In their Decision on this programme, EU member states and Parliament state their support to the aim of 'halting global forest cover loss by 2030' (Preamble 12) and they highlight the importance of forests for maintaining natural resources, especially good quality water and soil as well as biodiversity and diverse cultural landscapes.

More specifically, the programme 'shall ensure that by 2020 (...) forest management is sustainable, and forests, their biodiversity and the services they provide are protected and, as far as feasible, enhanced and the resilience of forests to climate change, fires, storms, pests and diseases is improved'.

In relation to the EU Biodiversity Strategy, the programme expresses the need to 'step up the implementation of that Strategy, and meet the targets contained therein in order to enable the Union to meet its biodiversity headline target for 2020. Whereas the Strategy includes built-in measures to improve the implementation of the Birds and Habitats Directives, including the Natura 2000 network, reaching the headline target will require the full implementation of all existing legislation aimed at protecting natural capital'.

2.6. Renewable Energy Directive

The EU Renewable Energy Directive (RED) establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020, and by 2030 the target will be 27%. Solid and gaseous biomass – particularly wood and wood waste – used for electricity generation, heating and cooling production is the biggest source of renewable energy in the EU, providing over half, and is expected to continue to make a key contribution to the 20% EU renewable energy target by 2020.

According to the Impact Assessment to the 2030 Climate and Energy Framework , biomass use in the heat and power sectors is expected to further increase in the medium term, in the context of the EU effort to move to a low-carbon economy by the middle of the century.

The EU RED lays down mandatory sustainability criteria for biofuels for transport and bioliquids. Therefore, wood used for biofuels (currently a negligible amount, but expected to increase) should fulfil the sustainability criteria established by the RED. However, the RED does not include mandatory sustainability criteria for solid and gaseous biomass used for electricity, heating and cooling.

Nonetheless, as required by Article 17(9) of EU RED, in 2010⁵ and in 2014⁶, the European Commission published reports on the sustainability of solid and gaseous biomass for heat and electricity generation. Those reports included information on existing and planned EU actions to maximise the perceived benefits of using biomass while avoiding negative impacts on the environment as well as a recommendation to Member States to use a set of defined sustainability criteria on a voluntary basis.

While biomass imports are estimated to be at least 15 million tonnes by 2020, the EU demand for solid and gaseous biomass for bioenergy production is likely to continue to be met largely through domestic raw material up to 2020. Biomass demand is projected to further increase up to 2030, increasingly to be met by imports, which raises the question of sufficient and secure supply of sustainable and cost-effective biomass for all uses in the EU beyond 2020, including the existing woodworking industries and the emerging branches of the bioeconomy.

The State of play on the sustainability of solid and gaseous biomass used for electricity, heating and cooling in the EU states that in Europe forest biomass for energy is currently largely produced as a complementary co-product of wood material/fibre products. Therefore it is unlikely that bioenergy demand is associated to direct deforestation in Europe. As a result of afforestation programmes, natural succession of vegetation and abandonment of farming, EU forest area has increased and, over the last decade, have grown by around 2% in area, while the use of bioenergy has been increasing at the same time. It is expected that forest expansion will continue, although the process is slowing down due to agriculture maintenance and urbanization. In addition to growth in area, as only 60-70% of the annual increment is being cut, the growing stock of wood is also rising significantly. Furthermore, according to the current knowledge, there is no evidence of systematic imbalance between forest functions at the European level –such as systematically prioritizing production over biodiversity or vice versa, although there may be some localised problems at national level.

For the post-2020 period, as announced in the Communication on a 2030 Framework on Climate and Energy, an improved biomass policy will be developed in order to maximise the climate and resource efficiency benefits of biomass in the wider bioeconomy, while delivering robust and verifiable GHG emission savings within a policy relevant timeframe and minimising the risks of unintended environmental impacts and to allow for fair competition between the various uses of biomass resources .

On 25 March 2015 Commission issued its Communication on the Energy Union. As one of 15 key actions the Commission indicated a new Renewables Package, including a new policy for sustainable biomass and biofuels to be presented in 2016-2017.

2.7. EU Emissions Trading Directive and implementing provisions

The EU Emissions Trading Directive (EU ETS) includes requirement that the emission factor for biomass shall be zero. The Monitoring and Reporting Regulation (MRR) contributing to

⁵ COM(2010)11 final

⁶ SWD(2014) 259 final

implementation of EU ETS contains more specific requirements related to the treatment of biomass for the accounting of emissions under the EU ETS. This includes definitions of biomass, biofuels and bioliquids that are consistent with the EU Renewable Energy Directive (RED).s

Where no sustainability criteria apply, the emission factor of biomass is considered to be zero (i.e., “zero-rated”). If sustainability criteria apply, these must be complied with in order to be considered zero-rated biomass. Sustainability criteria do apply to biofuels and bioliquids . If these criteria are not met then the biofuels and bioliquids concerned no longer meet the MRR definition of biomass and are treated as fossil fuel sources. . However, there are very few installations under that ETS that use bioliquids or biofuels.

The burden of proof concerning biomass meeting necessary sustainability criteria lies with the EU ETS operator or aircraft operator. Where the status cannot be confirmed to the satisfaction of the relevant competent authority the biomass must be treated as a fossil fuel source stream and all released CO₂ emissions from combustion are accounted for.

2.8. LULUCF Decision

EU Decision 529/2013 sets the accounting rules applicable to greenhouse gas emissions and removals resulting from activities related to land use, land use change and forestry pre2020. The land use, land-use change and forestry (‘LULUCF’) sector in the Union is a net sink that removes from the atmosphere an amount of greenhouse gases that is equivalent to a significant share of total Union emissions of greenhouse gases. LULUCF activities cause anthropogenic emissions and removals of greenhouse gases as a consequence of changes in the quantity of carbon stored in vegetation and soils, as well as emissions of non-CO₂ greenhouse gases. A more efficient use of wood and wood products could enhance forest capacity to sequester and store carbon.

Member States in the framework of the decision provide information on their current and future LULUCF actions, setting out nationally appropriate measures to limit or reduce emissions and to maintain or increase removals from the LULUCF sector. Hence the EU LULUCF Decision (2013) provides information on the development of forest resources and harvesting in the EU. Policy on how to include Land Use, Land Use Change and Forestry into the 2030 greenhouse gas mitigation framework will be established as soon as technical conditions allow and in any case before 2020. The Commission is currently assessing options on how this could best be achieved.

2.9. EU Plant Health and Forest Reproductive Material Directives

Directive 1999/105/EC addresses the production, marketing and import of marketing of forest reproductive material and considers that the forest reproductive material used should be genetically and phenotypically suited to the site and of high quality. The directive emphasizes that conservation and enhancement of biodiversity of the forests including the genetic diversity of the trees is essential to sustainable forest management. Forest reproductive material coming from the third country can be marketed in the EU only if equal assurance on basic material and its production as for the EU forest reproductive material can be guaranteed.

Directive 2000/29/EC on Plant Health recognizes the vital function and biodiversity of forests and lays down clear rules to determine phytosanitary risks posed by harmful pests to plants or plant products and measures to reduce those risks to an acceptable level. The Directive sets out rules concerning official controls as regards protective measures against introduction into the EU of harmful pests and against their spread within the EU. The legislation covers forest reproductive material as well as wooden raw material and products and requires measures at operator, national as well as EU level. The EU Plant Health legislation is under revision.

The implementation of the legislation contributes to SFM through the mapping of tree species composition at national level, survey of forests' health and financing of national monitoring programs.

2.10. EU Procurement Directives

The European Union has set legal basis for public procurement within the Union, namely Directives 2004/17/EC and 2004/18/EC ("Procurement Directives") which establish conditions for economic operators to compete for public contracts. They also allow public authorities to get best value for money when procuring goods, works or services. Directive 2004/18/EC (hereafter the "Procurement Directive") also "clarifies how the contracting authorities may contribute to the protection of the environment and the promotion of sustainable development. The European Court of Justice has further clarified how sustainability considerations can be taken into account in designing public procurement criteria in accordance with the Procurement Directives.

In 2014 Directive 2014/24/EU replacing directive 2004/18/EC and Directive 2014/25/EU replacing directive 2004/17/EC have been adopted. The Member States have until April 2016 to transpose the new rules into their national law (except with regard to e-procurement, where the deadline is September 2018).

Although the procurement directives do not in themselves oblige any public entity to demand legal and/or sustainable wood they do for contracts above given thresholds provide a number of provisions on how to do this if so wished, including on how to define and specify requirements as well as provisions regarding means of proof. This in practise means that the directives indirectly have a major influence on the practical possibilities for public buyers to promote the use of sustainable wood in public contracts and thus have to be taken into account, when considering the need to amend criteria and indicators for SFM developed in other contexts.

11. Non-paper on EU Policy Needs

The main needs identified from EU policies regarding to SFM C&I identified by the Commission services refer to:

- **Rural development:** support to assess the contribution from forestry measures to forest area development and sustainable forest management.
- **Environment:** contribute to assess the implementation of the targets of the Biodiversity strategy and other relevant environmental legislation and to monitor the progress.
- **Forest reproductive material and forest health:** Programmes for preservation and improvement of genetic resources from the forests and monitoring of forest health and of pests causing forest damage.
- **Energy and climate change :** in the framework of the Climate Change and Energy 2030 package, identification of a set of workable and demonstrable EU-wide SFM indicators at the appropriate level to demonstrate the sustainability of forest management in the context of a post-2020 EU climate and energy policy framework. Identification of the sustainable levels and trends of biomass for carbon sequestration, carbon stocks and biomass and evaluation of adaption to climate change of EU forests.
- **EU forest-based industries and the emerging bioeconomy:** identification of approaches and tools to provide sustainability assurance for forest-based biomass and its derived products along their respective value chains.

Rural Development

Background

Rural Development Policy is one of the two pillars of the Common Agricultural Policy (CAP). It helps meeting the challenges faced by rural areas and contributes to their sustainable development. Support is provided for rural development programmes defined at national or in some cases regional level, which for a seven-year period identify the measures to be undertaken and the funding allocated in order to achieve the objectives set. Forestry is an integral part of rural development and support for sustainable and climate friendly land use includes forest area development and sustainable management of forests.

The new Rural Development Regulation requires that for holdings above a certain size, to be determined by the Member States in their programmes, support shall be conditional on the presentation of the relevant information from a forest management plan or equivalent instrument, in line with sustainable forest management as defined by the Ministerial Conference on the Protection of Forests in Europe of 1993. The Regulation also states that forestry measures should contribute to the implementation of the new EU Forest Strategy.

How the WG can contribute to EU rural development policy

The work on SFM criteria and indicators can be relevant under rural development as far as it could support to assess the contribution from forestry measures to forest area development and

sustainable forest management (SFM) and to monitor the implementation of the 2020 target of the new EU Forest Strategy.

The correspondence and linkages between Forest Europe SFM indicators⁷ and the relevant context indicators under the Common Monitoring and Evaluation Framework (CMEF)⁸ can facilitate the gathering of and reporting on data as well as facilitating synergies with these reporting obligations. The relevant CMEF context indicators refer to labour productivity in forestry, forest and other wooded land area, Natura 2000 areas, protected forests, production of renewable energy from agriculture and forestry and energy use in agriculture, forestry and food industry.

Environment

Background

The EU Biodiversity Strategy to 2020⁹ has the headline target of ‘halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss’. The Strategy aims to address the main pressures on nature and ecosystem services in the EU and beyond, and lays down the policy foundations for EU-level action over the next ten years.

The final assessment¹⁰ of the 6th Environment Action Programme concluded that the programme delivered benefits for the environment and provided an overarching strategic direction for EU Environment Policy. Despite those achievements, unsustainable trends still persist in the four priority areas identified in the 6th EAP: climate change, nature and biodiversity, environment & health and quality of life; and natural resources and wastes.

Many environmental trends in the Union continue to be a cause for concern, not least due to insufficient implementation of existing Union environment legislation. Only 17 % of species and habitats assessed under the Habitats Directive have favourable conservation status, and the degradation and loss of natural capital is jeopardising efforts to attain the Union’s biodiversity and climate change objectives.

Recent assessments show that biodiversity in the Union is still being lost and that most ecosystems are seriously degraded as a result of various pressures. The EU Biodiversity Strategy to 2020 sets out targets and actions needed to reverse those negative trends, to halt the loss of biodiversity and the degradation of ecosystem services by 2020 and restore them as far as feasible. It is necessary to step up the implementation of that Strategy, and meet the targets contained therein in order to enable the Union to meet its biodiversity headline target for 2020.

⁷ Forest Europe is currently updating SFM indicators

⁸ Further info at: http://ec.europa.eu/agriculture/cap-post-2013/implementation/index_en.htm

⁹ <http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm>

¹⁰ <http://ec.europa.eu/environment/newprg/archives/final.htm>

The 7th EAP¹¹ requires that the Commission ensure that the implementation of the relevant elements of the action programme be monitored in the context of the regular monitoring process of the Europe 2020 Strategy. This process shall be informed by the European Environment Agency's indicators on the state of the environment as well as indicators used to monitor progress in achieving existing environment and climate-related legislation and targets such as the climate and energy targets, biodiversity targets and resource efficiency milestones.

The environment-related elements set out in the new EU legislation 2014-2020, in particular for EU agriculture and rural development, fisheries and cohesion policies, are designed to support those objectives. Since agriculture and forests together represent 78 % of land cover in the Union, they play a major role in maintaining natural resources, especially good quality water and soil as well as biodiversity and diverse cultural landscapes.

How the WG can contribute to EU environmental policy

The work on SFM criteria could contribute to assess the implementation of the targets of the Biodiversity Strategy and to monitor the progress, solving the challenges identified above.

The existing pan-European C&I can be used to characterise the state of European forests and its changes. The application of C&I by EU Member States is relevant in order to analyse the status and trends of different parameters such as forest biodiversity. Different ownerships and governance structures in the EU should of course be taken into account.

A major aim for forest policy has been to ensure the sustainability of all forest management. This can be aided at the EU level by following a coherent set of requirements and by using the same evidence base. The C&I could be useful in setting the requirements and building up the evidence base for monitoring.

In conclusion, the criteria and indicators, being the basis of monitoring and reporting on the implementation of national commitments with regard to sustainable forest management, will be needed to monitor the progress of the above EU policy instruments in general and sustainable forest management in particular. The possible linkages between European Environment Agency and Forest Europe indicators could be also addressed, facilitating the gathering of and reporting on data as well as facilitating synergies between them.

Forest reproductive material and forest health

Background

Forest reproductive material is a fundamental input for the productivity, the diversity, and the health and quality of forestry production and our environment. The maintenance, conservation and appropriate enhancement of biodiversity of the forests including the genetic diversity of the trees is essential to sustainable forest management. If forests are to be of increased value including the aspects of stability, adaptation, resistance, productivity and diversity, it is necessary to use forest reproductive material which is genetically and phenotypically suited to the site and of high quality. To remove any actual or potential barriers to trade and to ensure quality and traceability, EU rules

¹¹ <http://ec.europa.eu/environment/newprg/index.htm>

have been established which impose the highest possible standards on the production and marketing of forest reproductive material.

Plant health is a key factor for sustainable and competitive agriculture, horticulture and forestry. In the case of trees and shrubs, protecting forest health is essential for the preservation of the Union's forests. Plant health is also important for the protection of biodiversity and ecosystem services. Pests from other continents are especially dangerous. European plants and trees usually lack adequate genetic resistance against foreign pests, which moreover often do not have natural enemies here. When introduced into Europe, foreign pests cause severe economic damage. They may jump to previously unaffected host species, spread fast across countries, and cause lasting yield and quality reduction and permanently increased costs for production and control. The often severe economic losses undermine the profitability and competitiveness of agriculture and forestry. The establishment of new pests may elicit trade bans from third countries, damaging EU exports. Not all pests can be controlled with pesticides and, where available, pesticide use may be undesirable.

How the WG can contribute to EU policy on forest reproductive material and plant health

There are a number of indicators which could be used that would serve several EU policies regarding plant reproductive material and plant health. Those indicators concern the monitoring of: pests causing forest damage, quantitative, geographic, climatic and ecographic distribution of pest populations, percentage of natural regeneration, the category of marketed/planted forest reproductive material, the provenance of planted forest reproductive material as an indicator of the adaptability to other climatic conditions and in addition the genetic characterisation of tree species using molecular markers in order to protect biodiversity. The information retrieved from the aforementioned indicators could also aid to assess the measures taken under the rural development programme for forest area development and sustainable forest management.

Climate change

Background

In the context of the UNFCCC, the long-term goal requires global greenhouse gas emissions to be reduced by at least 50% below 1990 levels by 2050. Developed countries as a group should reduce emissions by 80 to 95% by 2050 compared to 1990 levels. Accounting of emissions and removals from afforestation, reforestation, deforestation and forest management is mandatory in the second commitment period of the Kyoto Protocol.

The European Union has committed to reduce its GHG emissions by 20% below 1990 levels by 2020. The LULUCF sector does not form part of that commitment. However, the Directive on the ETS and the Decision on ESD note that all sectors of the economy should contribute to reaching the Union's GHG emission reduction target. This needs to be taken into account when preparing the future climate and energy policy. However, it would be important to know what are the sustainable levels and trends of biomass for carbon sequestration, carbon stocks and biomass for energy in different EU MS, and the impact of EU policies on forests beyond the EU.

How the WG can contribute to EU climate change policy

The work under this WG can help to identify what are the sustainable levels and trends of biomass for carbon sequestration, carbon stocks and biomass taken for bio-energy or solid forest-based products within different EU MS. Factors affecting carbon sequestration, carbon stocks and GHG emissions are: e.g. intensity of forest management and use of measures to enhance growing stock and increase forest area; mean growth rate; quality and status of soil; types and quantities of forest biomass used for bioenergy, bioenergy conversion technology and use of the wood-based products produced. In addition to mitigation, adaptation to climate change is also an important element related to forests

Energy

Background

Solid and gaseous biomass – particularly wood and wood waste used for electricity, heating and cooling are the biggest source of renewable energy in the EU and woody biomass is expected to make a key contribution to the 20% EU renewable energy target by 2020. Sustainably produced biomass can play an important role in helping to address concerns about climate change and security of energy supply, while contributing to economic growth and employment, particularly in rural areas. According to the Impact Assessment to the 2030 Climate and Energy Framework¹², biomass use in the heat and power sectors is expected to further increase in the medium term, in the context of the EU effort to move to a low-carbon economy by the middle of the century. In order to meet growing forest biomass demand for energy and other uses, forest production will need to be intensified across the EU. If done unsustainably, this could lead to forest degradation, with consequent negative impacts on biodiversity and ecosystem services, including on the carbon pool.

The EU Renewable Energy Directive¹³ (RED) lays down sustainability requirements for sustainable certification of biofuels for transport and bioliquids used in other sectors but not for solid and gaseous biomass used for electricity, heating and cooling. Since the adoption of the RED, the Commission has recognized more than 15 private schemes for sustainability certification. Furthermore, a number of industry-led sustainability initiatives are emerging addressing also the sustainability of consignment of biomass used for heating and power generation. In addition, there are several well established schemes that certify forestry and agricultural products, and these could provide a basis for certification schemes for bioenergy for heat and power. With respect to the issue of biomass sustainability based on SFM, it should be recognized that the development of verifiable SFM criteria is not yet sufficiently advanced for use throughout all life-cycle phases at EU-level.

In January 2014, in its Communication 'A policy framework for climate and energy in the period from 2020 to 2030'¹⁴, the Commission stated that "an improved biomass policy will also be necessary to maximise the resource efficient use of biomass in order to deliver robust and verifiable greenhouse

¹² COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A policy framework for climate and energy in the period from 2020 up to 2030

¹³ Directive 2009/28/EC

¹⁴ COM(2014) 15

gas savings and to allow for fair competition between the various uses of biomass resources in the construction sector, paper and pulp industries and biochemical and energy production. This should also encompass the sustainable use of land, the sustainable management of forests in line with the EU's forest strategy and address indirect land use effects as with biofuels".

EU climate change policies will also have impacts on forests beyond the EU as considerable volumes of timber are imported. Imports of woody biomass used for the creation of renewable energy are known to be increasing rapidly. By ensuring such material complies with the principles and concepts of sustainable forest management the EU can help combat deforestation worldwide and promote responsible forest management and stewardship.

How the WG can contribute to EU energy policy

Further to the Climate change and Energy 2030 package, there is a need to have an approach agreed and implemented at EU level to give reasonable assurances that EU policies are helping to promote concepts of sustainable forest management, both within the EU and further afield. This will be particularly relevant in the context of a post-2020 EU climate and energy policy framework. The third step in the work plan of the WG "to identify approaches and tools to provide sustainability assurance to forests and their products, including forest biomass, irrespective of the end use" can, therefore be relevant in the bioenergy context as a possible building block for subsequent development of criteria for downstream bioenergy phases in the value chain.

EU Forest-based Industries and the emerging Bioeconomy

Background

Biomass is available from several sources, including agricultural, forest, municipal), in several forms (solid, liquid, gas) and in numerous types (e.g. species, dimensions, qualities, etc.) whilst most of these can be used for bioenergy, by no means all are interchangeable for use as food, feed or feed stocks for the multiplicity of uses in wood-processing and the bio-based products of the emerging bioeconomy.

Large areas of EU forests provide woody biomass in the form of roundwood, including as fuel wood and industrial roundwood. 97 % of the industrial roundwood processed by EU wood-processing industries comes from EU forests, in addition to much of the wood used for bio-energy.

The bio-economy is an area under development with a significant increase foreseen in the volume of biomass feed stocks, including wood, needed as raw materials for emerging uses, above and beyond the existing demands of the established sectors such as pulp and paper and other solid, wood-based forest products. Thus, biomass availability in the broader context of bio-energy and material uses and assuming the sustainable management of the natural capital is vital in the framework of bio-economy policy. Given this, at least the following elements need to be taken into account:

- The need to reconcile different uses of biomass for food, energy and materials, bearing in mind the limited capacity for substitution between the feed stocks for non-energy uses;
- Implementation of the Bioeconomy Strategy aiming "to improve the knowledge base and foster innovation to achieve productivity increases while ensuring sustainable resource use and alleviating stress on the environment".

How the WG can contribute to sustainability for the EU wood-processing industries and the emerging EU bioeconomy policy

The wood-processing industries have already faced increasing competition for raw materials feed stock from the growing bio-energy markets. This competition will increase further in the context of the growing demand from emerging markets for bio-based products in the bio-economy. Thus, the work of the WG on SFM criteria as mentioned for other sectors is similarly relevant to the EU wood-processing industries and the bio-economy. In particular, the identification of approaches and tools is important to provide sustainability assurance for biomass from forests and for the products made from forest biomass which enter their respective value chains.

In this context, it would be important that the WG take into account the ongoing developments¹⁵ to ensure complementarity between the criteria and indicators to be further developed for SFM and those needed for the subsequent life-cycle phases further along the various value chains.

Thus, the sustainability of the wood-processing industries and the bio-economy value chains has a wider perspective than the work under this WG. It includes also other steps in the value chain which make up the subsequent life cycle phases. It is vital that assurances of sustainability for the forest biomass component of all forest products follow a coherent set of requirements and use a comparable evidence base regardless of ultimate end uses. The SFM criteria and indicators should ideally provide the building blocks for possible subsequent development of criteria for downstream life-cycle phases of forest products and services in the context of the wider bio-economy.

The forest-based sector has significant understanding of the synergies and trade-offs that exist between managing the forest for different outputs and objectives, such as quantity versus quality of timber produced or short-term versus long-term management objectives. These could be further explored.

¹⁵ I.e.: - Thematic Working Group on Biomass Supply under the Bioeconomy Panel looking into the sustainable use of biomass along the value-chain

- Bioeconomy Observatory aiming to provide regular data and analysis to monitor the development of the bioeconomy and support the implementation of the EU Bioeconomy Strategy
- SCAR SWG Bioresources-Bioeconomy aiming at providing advice on R&I policies and enhancing collaboration on the issue of sustainable biomass supply for food and bio-based industries;
- Ongoing FP7 projects addressing the issue of biomass availability

12. International reporting

Member States are already reporting on forests and forestry to the following:

- Joint Forest Questionnaire (EUROSTAT, UNECE, ITTO and FAO) – annual
- Timber Forecast Questionnaire, resulting in a "Market statement" to the UNECE's annual meeting
- Forest accounting IEEAF (Integrated environmental and economic accounting for forests), National authorities reporting to EUROSTAT – annual
- Forest fire statistics – annual
- LULUCF – annual
- Reporting on the implementation of the EU Timber Regulation – biennial
- Joint Wood Energy Enquiry, UNECE – biennial
- FAO Forest Resources Assessment – every 5th year
- Forest Europe quantitative and qualitative questionnaires/reporting – every 4th-5th year, resulting in the State of Europe's Forests report.

In addition Member States are reporting in accordance with the requirements in various EU legal acts described in chapter 5, as well as being engaged in reporting more on an ad hoc basis in relation to international policy process such as UNFF, CBD, UNCCD or UNFCCC.

13. FOREST EUROPE Criteria & Indicators

The FOREST EUROPE Criteria & Indicators were adopted during the Ministerial Conference on Protection of Forests in Europe in 2002 in Vienna, Austria. The set of indicators has 35 quantitative and 17 qualitative indicators. Currently the Advisory Group of FOREST EUROPE is reviewing the set, with new and updated C&I to be adopted at the next Ordinary Ministerial Conference on Protection of Forests in Europe in October 2015 in Madrid, Spain. The list of all indicators is also available on the web page: http://www.foresteurope.org/sfm_criteria/criteria.

Quantitative indicators	
C1 Maintenance and Appropriate Enhancement of Forest Resources and their Contribution to Global Carbon Cycles	
1.1 Forest area and OWL	Area of forest and other wooded land, classified by forest type and by availability for wood supply, and share of forest and other wooded land in total land area
1.2 Growing stock	Growing stock on forest and other wooded land, classified by forest type and by availability for wood supply
1.3 Age structure and/or diameter distribution	Age structure and/or diameter distribution of forest and other wooded land, classified by forest type and by availability for wood supply
1.4 Carbon stock	Carbon stock of woody biomass and of soils on forest and other wooded land
C2 Maintenance of Forest Ecosystem Health and Vitality	
2.1 Deposition of air pollutants	Deposition of air pollutants on forest and other wooded land, classified by N, S and base cations
2.2 Soil condition	Chemical soil properties (pH, CEC, C/N, organic C, base saturation) on forest and other wooded land related to soil acidity and eutrophication, classified by main soil types
2.3 Defoliation	Defoliation of one or more main tree species on forest and other wooded land in each of the defoliation classes "moderate", "severe" and "dead"
2.4 Forest damage	Forest and other wooded land with damage, classified by primary damaging agent (abiotic, biotic and human induced) and by forest type
C3 Maintenance and Encouragement of Productive Functions of Forests	
3.1 Increment and fellings	Balance between net annual increment and annual fellings of wood on forest available for wood supply
3.2 Roundwood	Value and quantity of marketed roundwood
3.3 Non-wood goods	Value and quantity of marketed non-wood goods from forest and other wooded land
3.4 Services	Value of marketed services on forest and other wooded land
3.5 Forests under management plans	Proportion of forest and other wooded land under a management plan or equivalent
C4 Maintenance, Conservation and Appropriate Enhancement of Biological Diversity in Forest Ecosystems	
4.1 Tree species composition	Area of forest and other wooded land, classified by number of tree species occurring and by forest type
4.2 Regeneration	Area of regeneration within even-aged stands and uneven-aged stands, classified by regeneration type
4.3 Naturalness	Area of forest and other wooded land, classified by "undisturbed"

	by man”, by “semi-natural” or by “plantations”, each by forest type
4.4 Introduced tree species	Area of forest and other wooded land dominated by introduced tree species
4.5 Deadwood	Volume of standing deadwood and of lying deadwood on forest and other wooded land classified by forest type
4.6 Genetic resources	Area managed for conservation and utilisation of forest tree genetic resources (in situ and ex situ gene conservation) and area managed for seed production
4.7 Landscape pattern	Landscape-level spatial pattern of forest cover
4.8 Threatened forest species	Number of threatened forest species, classified according to IUCN Red List categories in relation to total number of forest species
4.9 Protected forests	Area of forest and other wooded land protected to conserve biodiversity, landscapes and specific natural elements, according to MCPFE Assessment Guidelines
C5 Maintenance and Appropriate Enhancement of Protective Functions in Forest Management	
5.1 Protective forests – soil, water and other ecosystem Functions	Area of forest and other wooded land designated to prevent soil erosion, to preserve water resources, or to maintain other forest ecosystem functions, part of MCPFE Class “Protective Functions”
5.2 Protective forests – infrastructure and managed natural resources	Area of forest and other wooded land designated to protect infrastructure and managed natural resources against natural hazards, part of MCPFE Class “Protective Functions”
C6 Maintenance of Other Socio-Economic Functions and Conditions	
6.1 Forest holdings	Number of forest holdings, classified by ownership categories and size classes
6.2 Contribution of forest sector to GDP	Contribution of forestry and manufacturing of wood and paper products to gross domestic product
6.3 Net revenue	Net revenue of forest enterprises
6.4 Expenditures for services	Total expenditures for long-term sustainable services from forests
6.5 Forest sector workforce	Number of persons employed and labour input in the forest sector, classified by gender and age group, education and job characteristics
6.6 Occupational safety and health	Frequency of occupational accidents and occupational diseases in forestry
6.7 Wood consumption	Consumption per head of wood and products derived from wood
6.8 Trade in wood	Imports and exports of wood and products derived from wood
6.9 Energy from wood resources	Share of wood energy in total energy consumption, classified by origin of wood
6.10 Accessibility for recreation	Area of forest and other wooded land where public has a right of access for recreational purposes and indication of intensity of use
6.11 Cultural and spiritual values	Number of sites within forest and other wooded land designated as having cultural or spiritual values
Qualitative indicators	
A. Overall policies, institutions and instruments for sustainable forest management	
A.1 National forest programmes or Similar	
A.2 Institutional frameworks	

A.3 Legal/regulatory frameworks and international commitments	
A.4 Financial instruments/economic Policy	
A.5 Informational means	
B. Policies, institutions and instruments by policy area	
B1 Land use and forest area and OWL	
B2 Carbon balance	
B3 Health and vitality	
B4 Production and use of wood	
B5 Production and use of non-wood goods and services, provision of especially recreation	
B6 Biodiversity	
B7 Protective forests	
B8 Economic viability	
B9 Employment (incl. safety and health)	
B10 Public awareness and participation	
B11 Research, training and education	
B12 Cultural and spiritual values	

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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS - A new EU Forest Strategy: for forests and the forest-based sector/* COM/2013/0659 final

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COUNCIL DIRECTIVE 2000/29/EC of 8 May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community

COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

COUNCIL REGULATION (EC) NO 2173/2005 of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community

DECISION NO 1386/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet'

DECISION NO 529/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities

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Report from the Commission to the Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling SEC(2010) 65 final SEC(2010) 66 final /* COM/2010/0011 final */

Links:

Helsinki Resolution H1, http://foresteurope.org/ministerial_conferences/helsinki1993

http://ec.europa.eu/agriculture/forest/standing-committee/index_en.htm

http://ec.europa.eu/agriculture/forest/civil-dialogue-group/index_en.htm

<http://www.foresteurope.org/>

http://www.foresteurope.org/sfm_criteria/criteria

<http://ec.europa.eu/agriculture/cap-post-2013/>

http://ec.europa.eu/agriculture/cap-post-2013/implementation/index_en.htm

<http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm>

<http://ec.europa.eu/environment/newprg/archives/final.htm>

<http://ec.europa.eu/environment/newprg/index.htm>

<http://www.eea.europa.eu/soer>

<http://www.sustainablebiomasspartnership.org/>

<http://www.sustainable-biomass.org/publicaties/3906>

http://www.iso.org/iso/catalogue_detail.htm?csnumber=52528

http://standards.cen.eu/dyn/www/f?p=204:7:0::::FSP_ORG_ID:648007&cs=1982A0D5C34BE492340A89EBA0E159CEE

<http://enfin.info>