



**UNECE**



Food and Agriculture  
Organization of the  
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# Measuring the Value of Forests in a Green Economy

*Report from the expert workshop on 21 October 2016*



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra  
Swiss Confederation



**GREEN GROWTH**  
Knowledge Platform





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## Summary of workshop discussions (by the secretariat)

Forest sector produces already a lot of data for monitoring of the state of forests, the implementation of the sustainable forest management and the trends in the wood processing industries. There exist well established harmonised international data sets which are used by the actors in the forest sector. However this data seems not to be visible and available to the stakeholders from outside the forest sector.

Therefore, more effort should be made to communicate the forest related information to actors dealing with macroeconomic analysis, keeping in mind the needs of the green economy analysis and the emerging measuring system of progress to achievement of SDGs, the Paris Agreement and others. The forest sector should make sure that the information produced is communicated in a way that it is understood outside the forest sector. Also, the information should cover not only how the forest sector makes progress towards a green economy but also how it contributes to the achievement of green economy in other sectors and as a whole.

Today the data produced by the forest sector is turned into the reporting which addresses the questions useful only to the forest sector. There is a need to build a forest sector narrative which is aligned with the green economy, green growth and the 2030 Agenda narratives. Consequently the forest reporting should cover new questions to become useful to the users of the data outside the forest sector. Therefore, forest sector experts should participate in macroeconomic, green economy, green accounts etc. meetings to become acquainted with the trends at the international work to be able to continuously feed these processes with developments at the sectoral level.

The workshop acknowledged that the work on the System of Environmental-Economic Accounting (SEEA) provides the necessary framework as well as detailed guidance for sectors, in the context of the above mentioned processes. The important message for the forest sector is that SEEA has been largely adopted at country level and it has already been used for evidence-based policy making for the green economy. Therefore the green accounts work in the forest sector should be further developed in line and together with the SEEA standards so that it can be used outside the forest sector. There is an urgent need for the forest sector to engage in the work on SEEA with the stakeholders from outside the forest sector.

The workshop concluded that a possible work scenario on the discussed work could be to:

- Develop a forest sector narrative which would be aligned with the international macroeconomic and policy narrative (green economy, green growth, 2030 Agenda, Paris Agreement etc.)
- Map the existing: data, green accounts and indicators information in the forest sector which would support that narrative (the work on the SFM C&I seems to be the closest and the most relevant to the international green narrative)
- Identify the gaps in data, green accounts and indicators needed to support the narrative
- If needed, develop additional reporting to cover these gaps

The workshop considered itself the first step on the way to this work and asked the governing bodies of all the organisations who participated in the discussion (UNECE, FAO, OECD, UNEP, World Bank, GGKP) to draw a roadmap and to engage in the further joint work on the discussed topic.

## Introduction

The Workshop on “Measuring the Value of Forest Sector in a Green Economy” was organised on 21 October 2016 by the UNECE/FAO Forestry and Timber Section in the framework of the implementation of the “Rovaniemi Action Plan for the Forest Sector in a Green Economy”, specifically Action E.2.3 “develop the forest sector’s contribution to broader green economy indicator sets”.

The Section initiated its work in this area in December 2013, at a workshop on “Measuring and communicating the contribution of the forest sector to a green economy” organised during Metsä2013 - joint session of the ECE Committee on Forests and the Forest Industry and the FAO European Forestry Commission in Rovaniemi, Finland, in December 2013. There, the workshop provided an initial proposal as to how to measure the forest sector’s progress towards and its contribution to a green economy. The discussion on that topic continued during the seventy-second session of the ECE Committee on Forests and the Forest Industry, held in Kazan, Russia in November 2014.

During these consultations, it was noted that further discussion should also involve stakeholders from outside the forest sector. Therefore, in 2016, the Forestry and Timber Section invited the contributions from and organised the workshop in partnership with the following key organisations, active in the development of international measuring systems for a green economy: the Green Growth Knowledge Platform (GGKP), Organisation for Economic Cooperation and Development (OECD), The Economics of Ecosystems and Biodiversity (TEEB) Initiative at the United Nations Environment Programme (UNEP) and the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) Partnership of the World Bank. Also the Statistical Divisions of UNECE and FAO were consulted and invited to provide their contributions to the discussion.

## Background

The 2030 Agenda for Sustainable Development adopted in 2015 provided the UN system with a mandate to contribute to its implementation. The green economy and associated concepts such as the green growth, bioeconomy or the circular economy are closely linked to sustainable development. Transitioning to a green economy is an ambitious and comprehensive goal which will affect all regions, all sectors of the economy and all parts of the society, each in a different way.

Today there is no doubt that forests are of essential importance in the transition to a green economy and to the implementation of the 2030 Agenda for Sustainable Development. The forest sector, based on a renewable raw material – wood – which is processed in a way that causes little waste, and is recycled after use, has an important role to play in a green economy.

Also, the Sustainable Development Goals; notably SDG 15 (related to conservation, restoration and sustainable use and management of forests), the Sendai Framework for Disaster Risk Reduction and the Paris Agreement reiterate the role of forest ecosystem services in achieving their objectives. For that reason, the value of forest ecosystem services, accounting for multiple functions in the areas of: biodiversity, disaster risk reduction, climate mitigation as well as the economic and social importance of various forest products need to be given an appropriate recognition.

A range of approaches have been developed internationally to assess the progress towards a green economy and the value of natural capital and ecosystem services in that context. Some of them are applicable to forests and could be useful as a basis for measuring the implementation of activities of the Rovaniemi Action Plan for the Forest Sector in a Green Economy. However, despite the evident role of forests in transition to a green economy, assigning a value to forests as natural capital and the environmental and social service, remains a major challenge.

Therefore it is important to conduct an analysis of the complementarity of present approaches developed internationally in the context of the green economy and the 2030 Agenda for Sustainable Development as well as the existing approaches for measuring the value of natural capital with forest sector valuation systems. Such analysis can contribute to the increase of synergies among the different assessment methodologies. Consequently it will provide better information for policy makers about the evident contribution of forest sector to a green economy and about needs for policy measures necessary to enhance this contribution.

The workshop on “Measuring the value of forests in a green economy” aimed to provide participants with an opportunity to share knowledge and to discuss these topics. It was meant to provide the first step to the analytical process, essential for evidence-based policymaking to be able to measure progress towards policy goals for the transition towards a green economy.

## 1. Green Economy

Presentations of the green economy concepts, assessment methods and international work on measuring natural capital were delivered by Mr Derek Eaton; Mr Fulai Sheng, UNEP; Ms Mikaela Rambali, OECD; Mr Francesco Tubiello, FAO; Mr Juan-Pablo Castaneda, WAVES Partnership, World Bank and Mr Salman Hussain, TEEB Initiative, UNEP. They provided participants with useful knowledge laying out the background for further discussion on these topics.

### 1.1. Information about the concepts related to green economy

UNEP defines a **green economy** as one that “results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities” (UNEP 2011). In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive. Following Rio+20, the Green Economy Initiative has evolved to now be referred to as “**Inclusive Green Economy**”, which recognizes the equal importance of equity and social cohesion relative to respecting environmental limits and critical ecological thresholds. An inclusive green economy is presented as a **pathway towards achieving the 2030 Agenda for Sustainable Development**, eradicating poverty while safeguarding the ecological thresholds, which underpin human health, well-being and development (UNEP 2015a).

**Green growth**, which emerged in parallel as a flagship initiative of the Organisation for Economic Co-operation and Development (OECD) “is about fostering economic growth and development while ensuring that the natural assets continue to provide the resources and environmental services on which our well-being relies. To do this it must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities” (OECD 2011).

Both green economy and green growth can be seen as including the concept of **low-carbon development and low-carbon growth**, which focusses specifically on investments which reduce carbon emissions, or at least their growth rate. Green economy and green growth also include other aspects such as resource efficiency in general.

**Circular economy** is a long-standing concept with various origins and definitions.<sup>1</sup> The concept focuses on the minimization of waste through resource-efficiency, reusing and recycling. At the core, it is the concept of closed-loop systems in which all raw materials are recaptured as a response to both growing resource scarcity and waste management challenges. A circular economy can be seen as a more specific strategy for the transformation and development of industry and infrastructure to contribute to sustainable consumption and production (SCP). UNEP (2015) has recognized a circular economy as one of the key components of an inclusive green economy.

**Bioeconomy** responds to concerns about growing scarcity of resources, but in this case, biological resources, such as those from agriculture, forestry and fisheries. This policy agenda emphasizes a transition towards an optimal and sustainable use of renewable biological resources, as materials and bio-energy.

## 1.2. International Work on Measuring Methodologies for Progress to a Green Economy

UNEP is currently designing a **Green Economy Progress (GEP) measurement framework** to measure progress towards achieving the transition to an inclusive green economy at the national and global levels. The framework is meant to support a transition to an economy that produces environmentally friendly goods and services and that creates economic opportunities, social improvements and new jobs while staying within planetary boundaries.

The GEP measurement framework includes a composite index, the Green Economy Progress (GEP) index as well as a “dashboard” of indicators. This project is an initiative which brings together five UN organizations (UNEP, UNIDO, UNITAR, ILO and UNDP).

The GEP index captures particular characteristics of the green economy by including multidimensional indicators, such as measures that capture the link between health and the environment. It focuses on countries’ progress with respect to their own targets, and it also tracks the sustainability of that progress.

**The OECD Green Growth Strategy** supports countries in fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services. The strategy provides a practical framework for governments to seize opportunities that arise when the economy and the environment work together.

**The OECD’s work on green growth measurement framework** presents a monitoring tool towards green growth through a selection of green growth indicators that illustrate the progress that OECD countries have made since the 1990s. They are organized into the following four themes:

- environmental and resource productivity

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<sup>1</sup> <https://www.ellenmacarthurfoundation.org/circular-economy>

- natural asset base
- environmental quality of life
- policies, measures, opportunities
- policies, measures, opportunities

The framework also includes a dashboard of six headline indicators to communicate the central elements of green growth in a balanced way

- carbon productivity
- material productivity
- environmentally adjusted multifactor productivity
- natural resource index
- changes in land use and cover
- population exposure to air pollution.

OECD will further proceed on this measurement initiative to cover the gaps in information and methodology for some indicators and ensure the alignment with the green accounting initiatives. It will aim to improve disaggregation by sectors to better reflect it in the OECD environmental performance reviews.

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#### *Forests in the OECD work*

*In the context of the OECD green growth strategy management, wood use is included in the supporting information for “material productivity” headline indicator. Forest biodiversity, ecosystems and land cover information will be included in the future land cover indicator which is being developed currently. The “natural resources index” indicates if the resources assets are being kept intact and used in a sustainable manner. So far the indicator covers only energy and minerals but in the future it is meant to also include information about water, soil and timber use.*

*In the OECD work, there are also other forest related indicators. They are not included in the green growth index, however are a part of the environmental core sets. They measure the impact of environmental changes on forests such as for instance the share of degraded forests. Others include the area, volume and distribution of forests, and those more policy related ones include forest management and forest protected areas.*

*More forest related indicators can be found in the national OECD green growth reports. Some countries reflected on the export of forest products to demonstrate the role of the forests sector in their national economy. Also Germany and the Netherlands, for instance, reported on standing timber and growth increment. Germany has also used the change of the land use area change to show that forest coverage has increased over the years.*

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### 1.3. Natural Capital Assessment Methods

**The System of Environmental-Economic Accounting (SEEA)** is an international initiative, coordinated under the auspices of the United Nations Statistical Division. The SEEA provides a standardized framework for integrating data on natural and environmental resources into a set of tables and accounts that are satellite to the System of National Accounts (SNA). The SEEA also includes specific attention for the agriculture, forestry and fisheries sector, referred to as SEEA-Agriculture, or SEEA-AFF

**Wealth Accounting and the Valuation of Ecosystem Services (WAVES)** is a partnership, led by the World Bank, which broadly promotes mainstreaming of natural resources in development planning and national economic accounts.<sup>2</sup> This is done through natural capital accounting (NCA) where there are internationally agreed standards, and also by developing approaches to ecosystem service accounts. The partnership, launched in 2010, includes a coalition of UN agencies, governments, international institutes, nongovernmental organizations and academics.

**The Economics of Ecosystems and Biodiversity (TEEB)** is a global initiative focused on “making nature’s values visible”.<sup>3</sup> Its principal objective is to mainstream the values of biodiversity and ecosystem services into decision-making at all levels: what is the value of ecosystem services and modelling on what will happen if we progress doing business as usual vs what would be the impact of changed (policy) approach.

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#### Forests in TEEB work

*Some of the examples of forest related values, not included today in the decision making process, comprise the heritage value of forests, recreation resource and the forest ecosystem services such as erosion control, soil formation, nutritional cycling. The negative impacts on forests, such as habitat encroachment, species reduction, are not valued today.*

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### 1.4. Key takeaways from the discussion on Green Economy

What is expected from specific sectors such as the forest sector to contribute to the general green economy measuring systems? How useful it is for the individual sectors to develop their own measuring systems and how they and the data collected in the sector could be integrated in the international green economy measuring systems?

- Forest sector could make a suggestion for policies in the sector which could help advance the transition of the forests sector to a green economy and also support the transition of the whole economy to a green one.
- Estimation of physical flows is already very useful for the policymakers. Forest sector could go further and develop monetary valuating techniques.

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<sup>2</sup> <https://www.wavespartnership.org/>

<sup>3</sup> <http://www.teebweb.org/>

- Strengthening of the role/visibility of forests in the natural capital assessment methods could be one of approaches. The other could be the promotion of the transformation of forest sector to a green economy which would drive the transition in the entire economy.
- Forest sector could develop methods for measurement and valuation of ecosystem and cultural services of forests.
- Forest sector could provide data on non-marketed forest services and collaborate with other sectors on methodologies of valuation of these services.
- Forest sector could share the good practice in the progress made in sustainability measures introduced in the forest processing industry such as reuse the fibres and the water savings in the pulp and paper industry.
- Forest is implicit in the UNEP Index and in the ecological footprint measures, but it is not explicit in the measuring methodologies as there is no clear connection between forests and planetary boundaries at the moment. This topic could be studied further.
- It is very relevant to link the work in the forest sector with subnational level and private sector initiatives such as Natural Capital Protocol, Global Reporting Initiative which are relevant for forest sector. There, sectors play a pivotal role because they understand the sectoral realities.
- The OECD three-dimension analysis applied in the green growth measurement framework could be applied on the sectoral level for forests. It would be very useful to have such an analysis on the sectoral level.
- In the OECD analysis on climate mitigation the data on forest sector interaction/impact on the environment and other sectors was practically inexistent. Such information would be very useful.
- Forest sector is not enough present at the international fora on green economy and sustainable development. Other sectors/industries are often there: fossil fuels, concrete industry etc. They defend their interests, talk about efforts they make towards sustainable development. Forest sector is on the “good” side of the game and is much more advanced on the path to sustainability, but it does not share it with the rest of the world.
- As regards the international measurements discussions often statistical offices and ministries of environment are represented. Forests are not always covered by these ministries; therefore there is an opportunity to take part in these discussions directly on the sectoral basis, as the relevant government representatives seem to be missing there.

What is the role of the environmental accounting and the green economy measuring systems in the context of the sustainability reporting systems?

- There is an overlap between the green economy and SDGs measurement methodologies, the synergies between them should be further investigated. Recently that has been a tendency to pay more attention to the more in-depth sectoral analysis in both the green economy and the 2030 Agenda. The SEEA is the key to the development of these methodologies.
- The policy message is that there are economic opportunities in doing things differently. Indicators should be used to address these policy issues, they should focus on the policy processes rather than specific indicators, define them in the way to define the issues and help understand their reasons and impact of policy instruments.
- It is important to understand how this type of reporting will be used, what is the purpose of it, who is going to use it.

**Conclusion:** There is a need to draw a roadmap for the inter-agency work in that area, because there are a number of issues which require the attention from expert with global and the sectoral points of view on the topic of measuring the progress towards a green economy and development of SEEA.

## 2. Forests in Green Economy

Presentations on the forest assessment methods were delivered by Mr Kit Prins; Ms Ludmila Marusakova, Forest Europe and Mr Guy Rebertson, USA. They outlined the ongoing forest sector work on the criteria and indicators for sustainable forest management, laying out the background for further discussion on the coordination of forest work with the international work on measuring green economy. Mr Prins presented new approach of measuring progress of the forest sector towards a green economy based on the existing SMF indicators and OECD indicators according to the thematic lines of the Rovaniemi Action Plan. Ms Marusakova and Mr Robertson presented the possible use of some of the criteria and indicators developed in their respective processes in the context of green economy.

### 2.1. Forest Sector Assessment Systems and Criteria and Indicators in the context of a Green Economy

It is important to analyse the complementarity of international work on measuring methodologies developed in the context of a green economy and the 2030 Agenda for Sustainable Development as well as the existing approaches for measuring the value of natural capital with forest sector valuation systems, because such analysis can contribute to the increase of synergies among the different assessment methodologies. Consequently it will provide better information for policy makers about the evident contribution of forest sector to a green economy and about needs for policy measures necessary to enhance this contribution.

Most of the forest monitoring systems used at present have their origin in the need to manage timber production, combined with the need to monitor biodiversity and forest damage in the context of sustainable forest management. However the forest sector does not measure the productivity, efficiency of resources, innovation, mitigation of the climate change, value of forest services, etc. directly, which could be useful in the context of green economy.

The information that exists already, and there is a lot of it, is often in the format that is not accessible to organisations such as OECD and UNEP, so there is a need for a transformational work to adapt this information for the use outside the forest sector.

Forest Sector should be able to look at the same issues and take into account the same criteria at which the experts look at the macroeconomic level to have a narrative about the forest sector progress towards a green economy (reference was made to the UNEP and OECD work).

The OECD growth indicators and criteria and indicator sets appear to be the closest to the sustainable forest management measuring methods therefore they have been compared in the background paper (Kit Prins) and provided the following preliminary conclusions:

- There are many areas of complementarity between sustainable forest management indicators and green growth indicators, confirming the impression that the forest sector can make a major input to a green economy.

- It also appears that there are sufficient data sources in place to make possible a satisfactory tracking of the forest sector’s progress towards a green economy.
- However, the focus of the two approaches (SFM and green economy) is quite different, and it is not satisfactory simply to transfer SFM indicators to address green economy issues.
- Areas which are important for green economy monitoring, but not directly addressed in present systems to monitor sustainable forest management include:
  - Factor productivity/efficiency of resource use. Forest-centred systems concentrate on volumes and flows, not on efficiency of use, whether of land, capital, labour or wood.
  - Accounting approaches and valuation of the elements of the forest sector. Traditional national accounts (SNA) are exclusively in monetary units. Economic-environmental accounts (SEEA) combine physical measures (ha of forest, m<sup>3</sup> of wood in the case of the forest sector) with monetary units, which can create valuation issues.
  - R&D, patents and innovation have received little attention in discussion of SFM. Little information is available on patents and innovation in the forest sector, although the potential importance of these is clear.

## **2.2. The Role of Green Accounting in Measuring the Progress of Forests in a Green Economy**

Conventional macro-economic analysis and policy is highly dependent on the availability of reliable, recent and comparable information on national accounts, presented according to methods which have been codified and standardised over many years, notably through the System of National Accounts (SNA).

The System of Environmental-Economic Accounting (SEEA) provides the necessary framework as well as detailed guidance for sectors, including agriculture and forestry. The important message for the forest sector is that it already is being used at the national level for evidence-based policy making for the green economy. Therefore the green accounts work in the forest sector should be developed in line with the SEEA standards so that it can be used outside the forest sector. There is an urgent need to engage the stakeholders from outside the forest sector on this work.

## **2.3. An approach to measuring progress of the forest sector towards a green economy**

On the basis of the comparison above, and the discussion in the paper presented in Rovaniemi in 2013, a possible approach has been developed which might be used as subject for discussion for an appropriate debate, review and modification, as a framework to measure the progress of the forest sector towards a green economy. It is proposed that the measurement system be structured around six main areas, which are summarised below, with some explanatory justification.

1. *Conservation of forest natural capital.* The conservation over time of the forest capital has always been at the heart of the concept of sustainable forest management, and is monitored by existing systems of criteria and indicators of sustainable forest management. This aspect will not lose importance in a green economy, and must continue to be measured. However, in an emerging green economy, this centuries old forestry concept will need to be expressed in terms which are understood by and compatible with emerging green accounting systems (see next section). The expression of the value of the forest natural capital should include not only wood stocks and flows but also the value of the non-market functions, and any increase or reduction in the forest's capacity to supply them. This is well known to be a very challenging exercise.
2. *Multi factor productivity and efficient use of resources.* It is known that there is little waste in the forest industries, as residues are used for other products or for energy; recycling of paper and, increasingly, wood products, is widespread. However traditional analysis of the sector has focused on whether "enough" material is available, and less on how efficiently it is used. In a green economy, it will also be necessary to increase efficiency in the use of all resources, notably wood, but also energy, labour and carbon, and monitor these trends.
3. *Contribution to climate change mitigation.* A green economy gives high priority to climate change mitigation, an area where forests and forest products play an important and complex role, notably through carbon sequestration and storage, as well as substitution, for non-renewable materials and energy sources. A "cascade" approach (using wood first as raw material, and only afterwards as energy source) is often advocated. However, at the national level, the forest sector contribution to climate change mitigation varies widely according to circumstances: extent of forests, increment/harvest balance, size and efficiency of wood processing industries, importance of renewable energy, consumption and recycling patterns etc. Furthermore this contribution can change over time, sometimes rapidly, for instance because of forest damage, market conditions or increased use of wood energy. The profile of each national contribution in this area should be described and any significant changes monitored.
4. *Integration of externalities and payment for forest ecosystem services.* Integration of externalities, and their correction through adapted market mechanisms, is essential parts of a green economy. There are many externalities in the forest sector, notably as regards the ecosystem services provided by forests, usually without any monetary compensation. However, systems are being developed and put in place for payment for forest ecosystem services. Quantification of these services and monitoring of efforts to correct them are essential to measure the forest sector's contribution to a green economy.
5. *Sustainability of the forest sector work force.* The development of "decent green jobs" and reduction of social exclusion are part of all green economy strategies. The protection of the work force against occupational injuries and disease are part of this, as is appropriate education and training, enabling the work force to contribute to a green economy and address the new challenges which will emerge. High accident/injury rates and inadequate education and training would significantly hinder progress towards a green economy. Finally the creation or maintenance of "decent green jobs" (as defined

by ILO and mentioned in the Action Plan) is an essential part of a green economy, and thus of the forest sector in a green economy.

6. *Good governance and evidence based decision making.* Good governance is an important part of a green economy. Although governance in the forest sector is already monitored in criteria and indicators of sustainable forest management, the profound changes necessary in methods and attitudes to move towards a green economy make it necessary to monitor how the sector is responding to the emerging governance challenges. In a very real sense, a green economy is based on changes in governance and decision making, using modified information input (e.g. corrected for externalities). Therefore the quality of governance should also be measured as part of the transition to a green economy.

## **2.4. Forest Europe Criteria and Indicators for sustainable Forest Management**

Since the beginning of the 1990s, an enhanced view on sustainable forest management has entered the stage of forest policy, and the concept of criteria and indicators has developed as one means of implementing sustainable forest management worldwide. In the wake of the United Nations Conference on Environment and Development (UNCED) of Rio 1992, several regional processes have developed criteria and indicators as a policy instrument to evaluate and report progress towards SFM.

In Europe, the initiative to promote and officially commit to SFM is driven by the Ministerial Conference on the Protection of Forests in Europe (MCPFE). In the 1990s, a set of national-level indicators was established to initialize and standardize pan-European reporting. This set was adopted at the third MCPFE in Lisbon (MCPFE, 1998); at the fourth MCPFE in Vienna (MCPFE, 2003a) an improved set of six criteria and 35 quantitative indicators (describing the forest status and changes) and 17 qualitative indicators (describing the national forest policies, institutions and instruments used to move towards SFM) was adopted. It was further updated and endorsed by the ministers at the 7<sup>th</sup> Ministerial Conference in Madrid in 2015.

The Forest Europe C&I thoroughly describe the SFM and green economy aspects. The EFI study from 2013 described it as complex, static and focused on the matters of interest mostly to the forest sector. This complexity creates barriers in communicating the questions of SFM to other sectors. Also it is still a challenge to use the indicators to communicate about the green economy. The social aspects and the forest sector workforce dimension will need to be strengthened in the future for that purpose.

In line with the new Forest Europe Work Programme, a new group of experts will be created to work on the subsets of indicators for the needs of other sectors and can be used to communicate with other sectors.

## **2.5. Montreal Process on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests**

The Montréal Process is an initiative which arose from a resolution at the 1992 Earth Summit calling for sustainable management of forests and was further developed at a 1993 conference on temperate and boreal forests in Montreal, Canada. The Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests

was subsequently formed in Geneva in June 1994. Its purpose was to advance the development of internationally agreed criteria and indicators for the conservation and sustainable management of temperate and boreal forests at the national level.

Membership in the Working Group is voluntary and currently includes countries from both hemispheres, covering a wide range of natural and social conditions. The member countries (Argentina, Australia, Canada, Chile, China, Japan, Republic of Korea, Mexico, New Zealand, Russian Federation, United States of America and Uruguay) represent about 90 per cent of the world's temperate and boreal forests, amounting to 60 per cent of all of the forests of the world.

In February 1995 in Santiago, Chile, the members of the working group endorsed a comprehensive set of criteria and indicators for forest conservation and sustainable management for use by their respective policy-makers. Since then the criteria and indicators have been undergoing the revision, therefore are flexible. It is also fragmented; all information is available in national reports and is not aggregated internationally. Forest inventories are key for the quality of the national reports.

## **2.6. Key takeaways from the discussion on Forest Assessment Methods in the Context of the Green Economy**

What are the synergies between the methodologies applied in measuring green economy and those used in the forest sector? What is needed to make these methodologies more complementary? Should an improved monitoring system be based on adaptation of the existing approach of criteria and indicators on sustainable forest management, or is a new or existing structure, focused exclusively on monitoring progress towards a green economy, necessary?

- The measuring of forest sector contribution to a green economy should be based on existing reporting processed in order to prevent additional reporting burden. The update of the existing SFM methodologies towards measuring the green economy would require a political consensus. The close collaboration among the criteria and indicators processes and experts working on green economy measuring systems is highly desirable to enhance the existing synergies among the various processes.
- Keeping in mind the needs of the green economy and the emerging measuring of progress to achievement of SDGs, the forest sector should make sure that the information produced is communicated to outside of the forest sector and not only about how the forest sector makes progress towards a green economy but also how it contributes to the achievement of green economy in other sectors and as a whole.
- There is a need to communicate about what needs to be measured, what are the policy needs. The forest sector has extensive data but it is possible that the reporting drawn from it may not be useful outside the forest sector. Based on the existing data different reporting could be done if there was such a need.
- There is information that can be used to build a narrative about forest sector in the context of green economy. The issue is, all indicators are equally important and it is difficult to narrow down the information coming out of them, which is why the reports are extensive. Also for that reason it would be probably difficult to achieve a consensus in an international political process designed in designing a set of indicators for measuring the value of the forest sector in a green economy.

- It is important not to multiply the sources of information. There exist well established harmonised international data sets in the forest sector which are used by all the actors in the forest sector. They should be communicated to the stakeholders dealing with macroeconomic analysis.
- To capture the synergies the forest sector needs to map out the green economy criteria for itself and develop a narrative which will be comparable with the one developed at the macroeconomic level.
- Montreal process appears to very much aligned with the requirements of the Paris Agreement and could be, with small modifications, used for this purpose.
- A possible way of proceeding could be: develop the narrative; check, where the data already exists; identify gaps – for that purpose also the OECD and UNEP databases should be checked; and design questionnaires to cover them.
- We should keep in mind also the emerging needs for reporting on the IAF and the Forest Instrument, SDGs and how make the case how the forest sector contributes to sustainability and various services should be incentivized. It is an important sector and needs to be more visible.

How to communicate on a continuing and cooperative basis with broader work connected to the green economy, notably those which have been presented to the workshop? Is it possible to set up mutually beneficial cooperation and communication?

- This workshop should be a step towards building the partnership among all stakeholders for a coordinated work on these topics. Also Forest Europe has an informal forest indicators partnership which could be used as a platform in that context as well
- GGKP is a knowledge sharing platform which has 50 partner institutions involved currently and UNECE is one of them. Within this platform there are research expert groups and one of them is on metrics and indicators. This community has been active for 2 years now and they are just launching the new programme of work. They are focused on data gaps associated with economic opportunities. The questions asked at this workshop about the forest sector and how it can communicate outside the sector seem to be related to the economic opportunities. Joining this group could be a pragmatic step to move forward this agenda.
- The emphasis should be made on the analysis of the potential implications of the kind of information that we are trying to generate. Therefore it would be useful to engage potential users of this information.
- It seems that the indicator sets that the forest sector has produced to measure the implementation of the SFM are quite complete. The exercise of mapping the existing SFM data which could be used for the needs of green economy and completing the OECD and UNEP databases would be very interesting.
- It would be very interesting to know where the information gaps are. We could feed in the information from the forest sector to various international systems and see what is already covered and where the gaps still are.



### 3. Findings and Recommendations

The workshop provided an excellent platform where the experts in macroeconomic analysis and the forest sector have learnt from each other. This process should continue. From now on they should stop to be considered as two separate groups and start work together, as it was done for this workshop and the preparation of the background paper, which was very instructive. One clear message that the forest sector could bring to the outside world would be that the forest sector uses the natural resources in a sustainable way, it has a positive impact on greenhouse gases, its workforce is sustainable, the payment for ecosystem services is increasing, the externalities are increasingly taken into consideration during the decision making and the decision making is based on evidence. This message will need to be backed up by data; therefore forest data will need to be made more available for users from outside the forest sector.

The discussion concluded that there are definitely synergies between the work of the green economy and forest sector experts and it will be possible to develop a narrative for the forest sector aligned with the one on green economy and the green growth. To achieve that there is a need to work together and build intra-agency, cooperative networks, also in the context of evaluation of the implementation of the Rovaniemi Action Plan, which will come to its conclusion in 2020.

**The workshop would like to ask the governing bodies of all the organisations who participated in the discussion to draw a roadmap and to engage in the further joint work on the discussed topic in order to ensure that the consultations held, will not be just a one-time event.**

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***For more information and suggestions please contact:***

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