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# Forest management and governance in a green economy: experience and emerging issues in the ECE region

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## 1 Background

### Origin and objectives of this paper

The country led initiative on governing forest landscapes (Interlaken + 10) aims to review progress over the last ten years on decentralization and governance of forest landscapes. It will identify key issues and develop proposals for the new international arrangement on forests which will be discussed at UNFF11 in May 2015.

This paper is a contribution by ECE/FAO to a session on forest management and a green economy. It will focus on issues of governance and a green economy, and specifically on how the governance of the ECE Region forest sector is being prepared for the coming introduction of a green economy all through our societies. It will propose, for discussion at Interlaken, a few “key issues” and make proposals and recommendations for the global process, from the view point of the ECE region.

The paper is based to a large extent on work carried out in the framework of the ECE/FAO Integrated Programme of Work, notably the data regularly collected by ECE/FAO and their partners, on the forest resource and forest products, the Forest Products Annual Market Review, the regional forest sector outlook studies, as well as workshops and seminars, notably the Lviv Forum on *Forests in a green economy: actions and challenges for the countries of eastern Europe and Northern and central Asia* held in 2012 as a contribution to UNFF 10.

ECE/FAO has also made other contributions to UNFF, notably, for UNFF 10, a paper on *Forest and economic development: a driver for the green economy in the ECE region*, which contains much relevant information on the ECE Region forest sector. ECE/FAO has also prepared a contribution to UNFF11 on progress towards the global objectives on forests in the ECE region, which will be issued in March 2015.

### Definitions

There has been considerable discussion and disagreement about the definitions of a “green economy”<sup>1</sup> and of “good governance”. It is not the role of this paper to explore these controversial questions in detail. This paper will use the following conceptual approach:

*A **green economy**, according to UNEP, is a system which results in improved human well-being and social equity, while significantly reducing environmental risks and*

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<sup>1</sup> See for instance A guidebook to the Green economy Issue 2: Exploring green economy principles (UNDESA 2012), which lists and compares a number of different attempts to formulate what constitutes a green economy

*ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive.*

*The **forest sector in a green economy** is, therefore, a forest sector which contributes to the emerging green economy by improving human well-being and social equity while significantly reducing environmental risks and ecological scarcities. In every aspect of its activities, it minimises its carbon emissions, uses its resources efficiently and is socially inclusive. (Introduction to Rovaniemi Action Plan, described below)*

**Governance.** *Governance is the process of governing, the way in which society is managed and how the competing priorities and interests of different groups are reconciled. It includes the formal institutions of government but also informal arrangements. Governance is concerned with the processes by which citizens participate in decision-making, how government is accountable to its citizens and how society obliges its members to observe its rules and laws. “Good governance” is generally regarded as being participatory, consensus-oriented, transparent, responsive, effective and efficient, equitable and inclusive, as well as following the rule of law; it assures that corruption is minimized, the views of minorities are taken into account, and the voices of the most vulnerable are heard. (UN Economic and Social Commission for Asia and the Pacific, quoted by the IAF independent assessment report September 2014)*

*The **forest sector** is defined, in ECE/FAO usage, as everything connected to management of the forest resource in all its functions (i.e. including conservation of biodiversity, recreation, protection of soil and water, as well as wood production), as well as the production and trade of primary forest products: roundwood, sawnwood, wood-based panels, pulp and paper, but not further processed products such as books, houses or furniture.*

## Rovaniemi Action Plan

In December 2013, the ECE Committee on Forests and the Forest industry and the FAO European Forestry Commission at their joint session endorsed the Rovaniemi Action Plan for the Forest Sector in a Green Economy<sup>2</sup>, a participatory, detailed and non-binding plan of how the forest sector should make the greatest possible contribution to the emerging green economy. It articulates a vision and principles and proposes hundreds of possible actions under five “pillars”:

- Sustainable production and consumption of forest products
- A low carbon forest sector
- Decent green jobs in the forest sector
- Long term provision of forest ecosystem services
- Policy development and monitoring of the forest sector in relation to a green economy

This paper draws heavily on the Action Plan examples of how the forest sector should contribute to the green economy and of governance in this regard. The last pillar in particular provides many indications of what constitutes good governance of the forest sector in a green economy.

## 2. What would the forest sector be like in a green economy?

According to the Rovaniemi Action Plan, the forest sector should, by 2020, be applying the following principles:

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<sup>2</sup> Geneva Timber and Forestry Study Paper 35, ECE/TIM/SP/35 (ISSN 1020-2269)

- The forest sector uses all its resources, especially those arising from the forest, wisely and economically, minimising waste, recovering, reusing and recycling as much as possible. It consumes only products from forests which can demonstrate that they are managed sustainably.
- The forest sector contributes to mitigation of climate change by sequestering carbon in forests and forest products, and by substituting renewable wood-based products and fuels for non-renewable products and fuels.
- The forest sector cares for and builds up its workforce, developing the necessary skills and significantly improving the occupational safety and health of workers and giving due consideration to gender equality.
- The forest sector makes sure that the situation of forestry education is reviewed and improved.
- The forest sector takes all externalities fully into account in policy making, introducing payment for forest ecosystem services whenever appropriate.
- The forest sector bases its governance on evidence-based decision making and the transparent monitoring of progress towards sustainable forest management.
- The forest sector provides products and services of high user/consumer value.
- The forest sector seeks the active participation of civil society and the private sector.

“Forest sector in a green economy” and “sustainable forest management” are different concepts, which are, however, totally compatible with each other, as they are both based on sustainability and balance. The principles of the green economy are broader, covering a number of aspects not addressed by indicators of sustainable forest management, notably efficiency of resource use, mitigation of climate change, internalization of externalities and consumer value. Downstream aspects, such as forest industries, or production, consumption and trade of products, although included in the sustainable forest management indicators are central to the discussion of the forest sector in a green economy, notably the stress on efficiency of resource use, and high user/consumer value. The annex compares systematically the pan-European indicators of sustainable forest management with the principles of the Rovaniemi Action Plan to demonstrate this point.

### **3 What governance and which policy instruments for the green economy?**

This paper does not have the ambition to analyse every aspect of the forest sector in a green economy: it focuses on governance. In particular what type of governance is necessary to achieve the Action Plan’s vision? Are the policy instruments to achieve this governance already in place, or must they be created? This section briefly list policy instruments which appear to be essential if the vision is to be achieved.

#### **Promoting consensus, participation and transparency: national forest programmes, criteria and indicators**

A key element of good governance is participation, transparency and a coordinated approach to policy making. Central to this approach is the preparation of programmes or strategies, based on participation of all stakeholders, including notably national forest programmes (NFPs). Good practice in national forest programmes was defined by the Vienna Ministerial Conference of MCPFE in 2003. According to this resolution, an NFP should be “a participatory, holistic, inter-sectoral and iterative

process of policy planning, implementation, monitoring and evaluation at the national and/or sub-national level in order to proceed towards the further improvement of sustainable forest management”.

The participatory approach is not unique to the forest sector and there are many programmes and strategies in related sectors at the national and international level, which refer to the forest sector, although it is not possible to list them here. Such programmes and strategies are also important tools for communicating with other “sectors”, such as energy, climate, biodiversity conservation or regional and rural development, to ensure a consistent approach and avoid unintended negative consequences.

Putting in place a national forest programme necessitates a major effort of data collection, investment of time by all concerned, structured consultation and negotiation, as well as a culture of consensus among all stakeholders.

Transparency is also important. Criteria and indicators of sustainable forest management can provide a framework for dialogue and policy making, improving the scope of information and analysis, assessing progress and communicating, both with the public and with other sectors.

### Internalisation of externalities: valuation of ecosystem services

The inclusion of environmental and social values in a quantified economic framework is one of the core ideas of a green economy. It is hoped by these means to give economic values to benefits provided by natural resources and processes, and thus promote evidence-based policy making. A number of approaches to valuing non market benefits have been developed, including contingent valuation, hedonic pricing, travel cost and others, all of which have advantages and disadvantages, both conceptual and practical<sup>3</sup>. There is a large literature, both general and forest-based, and many case studies valuing a series of specific benefits, at local, or even national scale. However, it has not yet been possible to incorporate valuation of non-market benefits alongside conventional valuation, as a standard part of normal policy making, for the forest sector or other sectors.

The main obstacles to widespread introduction of valuation of non-market benefits are of two kinds:

- **theoretical**, as differing valuation methods, based on different approaches to the concept of value, give different results for the same benefit. Furthermore, as they cannot actually be implemented in present circumstances, the estimated values of different benefits do not interact with each other in a market place as do the values of goods and services which are traded on a market. This lack of market interaction, influencing prices, leads to system distortions
- **practical**, in that all the methods require much complex and expensive data collection, through surveys and questionnaires, even for quite local benefits, as well as physical measurement of the benefits concerned.

### Payment for ecosystem services

One approach linked to the valuation of ecosystem services is payment for ecosystem services (PES), whereby the supplier of a defined service, for example water quality or biodiversity, is paid for a service which at present would be supplied free as a public good. Under PES, real funds are

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<sup>3</sup> See the ECE/FAO study on the Value of Forests (ECE/TIM/SP/34), whose annex 1 provides an overview of evaluation methods

transferred for an identified service. PES is thus more operational and specific than an estimated valuation, used as a basis for policy making. There are several encouraging examples of this type of scheme. However, there are also obstacles, in particular:

- clearly identifying and objectively measuring the service being provided, who supplies it, who has legal rights to it, and who benefits from it.
- Setting up appropriate legal forms for the transaction, which under PES should not be the same as a general subsidy
- Finding funding, especially when the service would be provided free of charge to the beneficiary in the absence of a PES system (this is the case for most forest ecosystem services, which cannot be withheld by the owner without destruction of the asset, the forest)

Despite these obstacles, many observers believe that PES systems, including for forest ecosystem services, are on the point of moving from theory to widespread implementation.

From the policy point of view, Governments and other agencies can take the lead in setting up pilot PES systems, and ensure that the legal/administrative system does not place unnecessary obstacles, for instance by resolving issues of ownership of the various ecosystem services for which payment is sought.

### Green national accounts

A widespread (and widely accepted) criticism of systems of national accounts, which are the basis of most macroeconomic policy, is that they do not address natural capital, non-marketed goods and services, or public goods, leading to distortions in policy. A frequently cited example is that reduction in quality of life and ecosystems is not taken into account, while the cost of removing damage is: as a result, GDP increases with higher pollution, although general well being probably does not. Likewise destruction of natural forests represents income (from wood sales etc.), while the loss of the natural resource does not appear in the accounts.

Correcting these distortions, on the basis of good methods and adequate data, and in a way which is comparable over time and between countries, is a major challenge. What would be the implications for the forest sector of introducing green national accounts, and basing strategic policy decisions, for the economy and society as a whole, on them?

- Accounting for natural capital, including forests, would increase the share of national wealth attributable to the forest sector.
- The process of preparing green national accounts would put strong pressure on analysts and forest economists to develop and apply techniques of valuation of forest benefits (see above), as well as on forest monitoring and measurement systems to provide objective and comprehensive information, in monetary terms, in a short time scale.
- The relative importance of the various forest functions to policy makers and forest owners would probably change, to the advantage of the hitherto non-market goods and services, which would be included in green national accounts
- Assuming the system was robust and accurate – an ambitious assumption, given the obstacles - sustainability would become easier to monitor and analyse, as forest capital and forest revenues would be regularly recorded and changes in all functions would be more easily apparent.

A truly functional system of green national accounts would have very fundamental consequences for all parts of society, including the forest sector, as it would make explicit and objective what had until then been complex and theoretical. However, the process of developing and testing green national accounts, collecting data and so on will in any case take many years. Given the green nature of the forest sector at present, at least in the ECE region, introducing green national accounts would be positive for the sector.

### **Evidence based policy making**

Structured information, based on a transparent and participatory process, and used by stakeholders and policymakers as a basis for decisions, is desirable in all areas, and especially in a green economy, which specifically promotes transparency, participation and evidence based policy making. A tool now frequently used in all parts of society is the creation and implementation of sets of indicators, focused on the specific topic under consideration.

However the scope of the forest sector in a green economy and of sustainable forest management, while they overlap, are not the same, and the existing sets of criteria and indicators for sustainable forest management are not adequate for understanding, monitoring and assessing progress towards the green economy. The annex compares the Rovaniemi Action Plan principles with the pan-European set of criteria and indicators, showing that some important aspects of the forest sector in a green economy are addressed: participation, occupational safety and health, etc. However, others are not. The most important green economy dimensions not addressed by the SFM indicator sets appear to be in efficiency of resource use (no indicators of recycling, recovery or residue use), consumption of sustainably produced products, carbon sequestration, substitution of non-renewable materials and energy, payment for ecosystem services/valuation, or high user/consumer value. On the other hand, a number of key elements of the SFM indicator set are not fully addressed in the debate of the green economy: biodiversity indicators, forest health and damage, while others are addressed through the perspective of “valuation of ecosystem services”, rather than for their own sake (protection functions, biodiversity). Thus new tools will be needed for evidence based policy making for the forest sector in a green economy. These new tools can be based on existing tools for sustainable forest management

### **Market transparency and traceability**

Transparency and high user value are important dimensions of the forest sector in a green economy. Among other things, this implies that consumers should be able to know, in a clear and reliable way, whether the products they consume are sustainably produced, and what is their impact on the environment and the climate. In practice, this refers to certification of sustainable forest management, together with chain of custody systems which ensure the traceability of the products from the forest to the final consumer. In addition, Life Cycle Assessment (LCA) makes it possible to estimate the emissions of green house gases, the energy consumption or the pollution associated with any product, from its manufacture, through transport, use, recycling and disposal. This enables evidence based choices, by consumers and policy makers, between different consumption patterns, taking into account not only price and performance, but also issues of sustainability (taken in the widest sense). It should be pointed out however that LCA requires large amounts of detailed information about processes and materials, as well as a standardised approach, on system boundaries, calculation methods and so on. If such “rules of the game” are not present and applied, LCA may deteriorate to become a marketing tool of little policy use.

These policy tools promote important dimensions of a green economy, including efficiency of resource use and contribution to climate change.

### **A tenure regime adapted to a green economy**

Some features of the green economy may come into conflict with certain features of the present land tenure regime, which itself varies between countries. For instance, there is a tension between encouragement of participation in decision making and private property rights, which has been discussed at length in the context of national forest programmes and certification schemes. Payment for ecosystem services also depends on the system of tenure in place: if the forest owner does not have legal rights over the ecosystem service provided by his forest, it is hard to see how a purchaser or beneficiary of the service could compensate him for supplying it. If the forest owner cannot legally withhold a service, because he does not own it, his bargaining power is much reduced. A well known example is payment for forest recreation in countries which have a legal right of universal access to forests (e.g. *allmansrätten* in Sweden, with similar rights in other Nordic countries). This feature of the tenure system makes it very hard to charge for forest recreation, as long as no special equipment or service is needed. The situation would be more complex with such things as water supply, protection against erosion or microclimatic effects, and even more complex for such benefits as landscape beauty, which have multiple suppliers and multiple beneficiaries, and are almost impossible to withhold. A robust system of payment for ecosystem services depends on the satisfactory resolution of these complex tenure questions. They also influence the valuation of the ecosystem services, and thus green accounting.

### **Coherent approach to policies across sectors**

The forest sector has never existed in isolation, as a user of land, as a supplier of livelihoods, or as an ecosystem. However, until the 1990s, forest sector policy making was often separate from policy making for other sectors, and confined to activities within the legally defined line of what constituted “forest”<sup>4</sup>. It was often carried out by specific bodies (ministries for forests) with specific legislation (forest laws and codes). As social complexity and globalisation increased, several cross sectoral issues emerged, notably biodiversity, energy and climate change. Policies were formulated and commitments made which had a major impact on forest management, although the discussion on these policies took place outside the traditional forest sector policy framework, and often involved stakeholders who had had little previous interest in forest questions. At the international level, legally binding commitments were made in a number of areas with direct consequences for forest management for instance the Convention on Biodiversity and the Framework Convention on Climate Change. Binding regulations and directives have been drawn up in the EU notably as regards renewable energy, and rural development.

The issue of complexity of inter-sectoral policy making affects all parts of society, and the solution is so-called “joined-up policy making”: links between policy areas are established, and many stakeholder groups are identified and consulted, in order to prepare a comprehensive strategy setting out the optimum combinations of policy instruments to achieve maximum overall welfare. In practice this is rather hard to achieve, and the political and financial strength of the various stakeholders, and their ability to mobilise support, is usually decisive. In this respect the position of

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<sup>4</sup> Often a *de facto* boundary line on the ground between land governed by forest sector institutions and land governed by agriculture institutions.

the forest sector is often weak: its share of GDP is typically around 1%, relatively few people are employed, scattered over rural areas, and forest ecosystem processes are very slow. The short term political cost of ignoring the forest sector is usually minor, except in those few countries where the sector is of economic importance.

The arrival of a green economy will make the situation even more complex, with more interactions, and more complex and abstract trade-offs. However when systems of payment for ecosystem services, green accounting and valuation of ecosystem services are in place, it will be easier for the forest sector to demonstrate its “green” qualities: renewability, efficiency of material use, positive carbon balance and so on, as well its social benefits, not only through employment, but also through amenity values, recreation and other aspects.

A green economy will bring major changes not only to the forest sector, but all across society and the economy. Policy tools like valuation of non-market services, payment for ecosystem services, green national accounts, or carbon taxes will have major, and partly unpredictable, consequences in all sectors as well as to the relative competitiveness and economic strength of the different sectors. In any case, the new features of a green economy will increase the complexity of policy making, and the necessity to address the consequences of policy decisions of policy decisions all through society. Tools such as strategies, modelling and consultation will become even more necessary than at present.

#### **4 Experience over the last 10-15 years in the ECE region**

This section briefly describes experience of the last 10-15 years in ECE region with regard to governance of the forest sector in a green economy, focusing on the policy instruments identified in the previous section

##### **Promoting consensus, participation and transparency: NFPs and criteria and indicator sets are now widely introduced**

In the pan-European region, NFPs are now a central part of the policy process. According to State of Europe’s Forests 2011, all 37 reporting countries stated that they had an NFP or similar process in place; 27 of these were formal NFP processes. In practically all of these countries, forest owners, environmental and social groups, and the forest industry as well as education and research bodies took part, along with the forest administration. In around 90% of these NFP processes, representatives from other sectors were reported to have been involved in some way. Active participation from environment, agriculture, energy and tourism was reported, as well as references to international commitments, notably the CBD and UNFCCC. Some countries are on the second iteration of their NFP. Some countries have drawn attention to the expense and complexity of the process, when done properly.

It appears that NFPs, as strictly defined, are not used in North America, at least at the national level, possibly because responsibility for forest policy is at the sub-national level (e.g. Canadian Provinces). Nevertheless in both Canada and the USA, there are national policies and objectives, as well as processes for participation by stakeholders in forest sector policies, and for consensus forming in a transparent way.

The criteria and indicators of sustainable forest management developed in the 1990s by FOREST EUROPE and the Montréal Process inside the ECE region, and by other processes elsewhere, have been very influential in providing a framework for dialogue and policy making, improving the scope of information and analysis, assessing progress and communicating, both with the public and with other sectors<sup>5</sup>. By listing the components of sustainable forest management in a concrete and measurable way, they have helped to create consensus, improve understanding and transparency, and enable monitoring and assessment. In these ways, they anticipated many of the main features of the green economy.

### **Internalisation of externalities: advances, but major challenges remain**

Internalisation of externalities is a core element of the green economy. As a result evaluation of non-market benefits is included in all blueprints for a green economy and green accounting systems. There has been much academic work, such as TEEB and official support for implementation, including a number of EU programmes<sup>6</sup>. Nevertheless, these techniques have not yet become a standard element of policy making or even policy analysis, beyond the local level. A workshop under FOREST EUROPE on this topic<sup>7</sup> examined the reasons for this failure to move from theory to practice. A number of barriers were identified, including lack of standards, differences between objectives and results of different valuation techniques, spatial variations, the difference between “value” and “price”, as well as political and cultural objections. There are risks, such as poor design and implementation leading to lack of confidence and cynicism (accusations of “greenwash”). Requirements for success identified at the workshop included availability of scientific and economic/financial evidence on which to base the valuation, appropriate knowledge and expertise, infrastructure, clear property rights, and sufficient funding. In summary, economic valuation and market approaches are powerful tools, but one approach among others. There have been major advances, but major challenges remain, and guidance and standards are needed before the concepts are widely put into practice.

### **Payment for forest ecosystem services: moving from pilot projects to widespread implementation**

The desirability of using payment for forest ecosystem services is widely accepted, but the practical difficulties are many, as outlined above. However, all over the ECE region, systems are being put in place with a wide variety of concepts, ecosystem services and funding arrangements. Each is adapted to its own particular circumstances, and there is no standard approach. The ECE/FAO study on the topic<sup>8</sup> identifies and briefly describes 84 PES schemes in ECE countries (not only forestry ecosystem services, although many of the schemes have a significant forest component).

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<sup>5</sup> List of possible functions of criteria and indicators summarised from Implementing Criteria and Indicators for Sustainable Forest Management in Europe, EFI, 2013.

<sup>6</sup> In the EU biodiversity strategy, countries commit themselves to “assess the economic value of ecosystem services and promote the integration of these values into accounting and reporting systems at EU and national level by 2020”. A number of programmes, such as Mapping and Assessment of Ecosystems and their Services (MAES), support this effort.

<sup>7</sup> Pan-European approach to valuation of forest ecosystem services, Belgrade, Serbia, September 2014. Presentations available at <http://www.foresteurope.org/events/forest-europe-workshop-valuation-forest-ecosystem-services>

<sup>8</sup> The Value of Forests: Payment for Ecosystem Services in a Green Economy, United Nations 2014, (ECE/TIM/SP/34)

### **Green national accounts: guidelines in place, work starting**

International organisations (UN Statistical Office, OECD, Eurostat) have drawn up guidelines for green national accounts, and case studies are being carried out, although only a few national level accounts have been published. However, it is likely that within a few years comparable green national accounts will be available for many countries and will be used for policy making. Given the complexity of the system and the expense and delay of data collection, it is unlikely that green accounts will be a robust basis for decision-making, for many years.

### **Evidence based policy making: more and better policy-relevant data now available for the forest sector**

It is not possible to say, without extensive analysis of policy making processes, whether or not policy making is in fact based on relevant accurate information, correctly analysed. Policy makers will always have to balance the interests of different groups and generations in a way which is ultimately subjective, even if based on the best available information. However, it is possible to assess whether the information available to policy makers is adequate to make informed decisions: is it accurate, comprehensive, up-to-date?

With regard to policy making for the forest sector in the ECE region, the availability and scope of policy relevant data has certainly improved over the last 10-20 years. The implementation of criteria and indicators at the national and international level mapped out data needs, which were quite comprehensive, and covered a wider range of topics than before, when most hard data referred to wood only. At the pan-European level, successive State of Europe's Forests reports (2003, 2007, 2011) have seen a marked improvement in data availability and quality, as data collecting agencies, notably national forest inventories, expanded the range of parameters measured, and cooperated better with other agencies. Many countries have prepared national publications structured around the indicator set, or a national indicator set. The Montréal Process has also published comprehensive datasets, structured according to indicators for member countries.

However, there remain obstacles to evidence based policy making for the forest sector: in a few countries, the quality of even the most basic data is poor, and many countries have gaps in coverage, especially in the socio-economic criterion. Furthermore, in many countries, data derived from forest inventories take rather a long time – often several years – to be collected and processed. As result, data put before policy makers may be based on field observations carried out four or five years earlier. This is understandable given the high costs of forest inventory field work, and is often not a cause of concern as forest ecosystem processes are slow, and rapid change is rare, but the gap between the age of forest related and socio-economic data may be a cause of concern.

### **Market transparency and traceability: certification and chain-of-custody schemes well established in the ECE Region**

Certification systems are now well established as voluntary market based instruments, with two systems, FSC and PEFC, dominating the ECE region in this respect. Rules have been agreed which are appropriate to local circumstances but in harmony with agreed international standards, and a robust system of inspection, certification and chain-of-custody certificates is in place so that final consumers can be confident that the product they are buying originated from a sustainably managed forest. The area of certified forest and the number of Chain-of-Custody certificates is still expanding steadily in the ECE region. According to a study of progress towards sustainable forest management in the

ECE Region, which will be issued shortly<sup>9</sup>, the area of certified sustainably managed forests in the ECE Region in 2014 was 383 million ha. The ECE Region accounted for 88 per cent of the global certified forest area. Over the last seven years the certified area in the ECE Region has more than doubled. The certified forests in the ECE Region occupied almost a quarter of the total forest area. The number of chain-of-custody certificates in ECE Region has been increasing even more rapidly: in 2014, about 27,600 valid certificates were issued which was 3.5 times more than in 2006.

### **A tenure regime adapted to a green economy: PES systems take existing tenure regimes into account**

Tenure regimes are rooted deep in the culture and legal systems of each country, and extremely difficult to change without strong reasons. In addition, any changes would necessitate compensation for any losses, for instance in property values. The author is not aware of any tenure regime being modified to facilitate the implementation of payment for ecosystem services. Rather the PES schemes are being designed with the existing tenure regime in mind.

### **Coherent approach to policies across sectors: interactions between the forest sector and others have become more complex**

The need for a holistic inter-sectoral approach is now widely accepted, although tensions and rivalries between stakeholders from different sectors still exist: see for instance the intense discussions about the use of wood for energy, and the foreseeable consequences for forest management, raw material supply for certain industries, revenues etc. Increasingly however, processes are put in place to involve all relevant stakeholders in decision making. The policy instruments and tools used vary widely; national forest programmes play a role in achieving consensus between sectors, as do “strategies” for sectors or other regions, which encourage an evidence based dialogue between all relevant stakeholders. One recent example, at the international level is the EU Forest Strategy, which specifically refers to many other EU policy instruments, and identifies the links between these instruments and forest sector objectives.

## **5. Three ECE/FAO activities relevant to the forest sector in a green economy**

Several ECE/FAO activities are relevant to the forest sector in a green economy, and are briefly presented here. They illustrate the type of activity which can be undertaken at the international level to promote the forest sector in a green economy. The Rovaniemi Action Plan provides the structure and broad direction for all these activities.

### **The Lviv Forum on Forests in a green economy: actions and challenges for the countries of Eastern Europe and Northern and Central Asia, 2012<sup>10</sup>**

The Lviv Forum brought together experts from an area – the Balkan Peninsula, the Caucasus and central Asia as well as Ukraine, and Russia - with its own specific issues and challenges related to the forest sector in a green economy. It was based on a background paper which presented the region’s

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<sup>9</sup> Forests of the ECE Region: status, trends and challenges. Progress towards the achievement of the global objectives on forests and sustainable forest management, and on challenges for forests and the forest sector in the ECE Region, ECE/FAO, 2015 (in press)

<sup>10</sup> Proceedings and background documents issued as ECE/TIM/SP/32

main characteristics and challenges, as well as the broad concepts of a green economy. However the Forum focused on intensive work by regional groups, on four main themes: sustainable forest industries and products, forest ecosystem services and the role of forests in low carbon economies, employment and livelihood opportunities in the forest sector, forest governance in a green economy. Each group prepared its own, region-specific, conclusions and recommendations. The Forum as a whole identified the main issues and challenges for the forest sector in the region as remoteness and lack of infrastructure, transition and changes in structures and society, including the need to improve governance, illegal logging, lack of, and threat to, protective functions because of low forest cover and lack of priority for the forest sector in national development plans. It also adopted a message, which has ten main points:

- Capture the true values of forests
- Use all resources efficiently
- Be energy-wise
- Make jobs decent and green
- Address threats to forests
- Define governance principles and stick to them
- Update skills
- Innovate and build partnerships
- Cooperate across boundaries
- Make the case for the forest sector's role in the green economy.

### **The Value of Forests: payments for ecosystem services in a green economy<sup>11</sup>**

This study, issued in 2014, brings together the results of work on payment for ecosystem services undertaken by ECE/FAO, with partners, notably other committees of UNECE. It brings together in a single volume the results of many studies. It first outlines ecosystem services, especially forest ecosystem services, as well as methods of valuation. It lists PES schemes in the ECE Region (on the basis of a survey), and analyses the enabling conditions required to put PES schemes in place. On the basis of the Rovaniemi Action Plan, it considers what role PES can play in a green economy, and formulates a number of recommendations.

### **Capacity Building in the Caucasus and Central Asia: Sustainable Forest Management for Greener Economies in the Caucasus and Central Asia<sup>12</sup>**

UNECE and FAO have launched a two-year capacity-building project in Central Asia and the Caucasus to increase the potential of that region's forest sector for "greening" the economy. The project is funded by the United Nations Development Account (UNDA).

The project provides training and advisory services for government officials who deal with forestry, as well as other stakeholders who are influenced by forest policies and forests. It will include the following activities:

- Developing training materials on sustainable forest management in a green economy, on wood energy and on data collection.

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<sup>11</sup> ECE/TIM/SP/34

<sup>12</sup> Website at <http://www.unece.org/forests-welcome/areas-of-work/forestpolicies/forestscapacitybuilding.html>

- Holding regional, national and local workshops on:
  - Forest policy formulation
  - Bioenergy generation from wood
  - Data collection on forests and forests products.
- Sharing lessons learned and making recommendations through a concluding regional conference.
- Creating a web-based hub for knowledge management on forest-related issues.

Seven countries have committed to the project: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. Furthermore, a coaching programme in three pilot countries (Georgia, Kazakhstan and Tajikistan) targets to develop national action plans to improve the forest's sector contribution to a green economy.

## **6. How to assess governance of forest sector and the green economy in the ECE region?**

It is too early to assess progress on forest sector governance in a green economy, but it is worthwhile giving consideration to how this progress should be assessed in future, as a support to decision making today. Using as a basis the headings of the Rovaniemi Action Plan (Pillar E on governance), we should be able, in three to five years, to carry out an enquiry to answer the following questions:

### **Ambitious and realistic strategies?**

Have national, and where appropriate sub-national, authorities developed ambitious and realistic strategies for the governance and monitoring of the forest sector and its contribution to a green economy?

### **Review of existing forest sector policy instruments in the light of a green economy?**

Have existing forest sector policy instruments, national, subnational and international been reviewed to ensure they promote, or at least do not hinder, the forest sector's contribution to a green economy?

### **Availability and use of comprehensive and comparable information?**

Is comprehensive and comparable information available at an appropriate spatial resolution, and in a form usable for policy making in the green economy? Have policy makers used that information?

### **Assessment of SFM?**

Has the sustainability of forest management been assessed in an objective and transparent way, at the national or sub-national level?

### **Improved communication with the public and policy makers?**

Has communication with the public and policy makers improved, establishing the situation and challenges of the forest sector in a green economy? Have widespread misunderstandings been reduced, and is there an evidence-based understanding of how "green" the forest sector is, and of which improvements are necessary?

### **Improved communication with other sectors, and learning from them?**

Do green economy institutions and policy makers, as well as those in non-forest sectors, have a good understanding of the forest sector's actual and potential place in a green economy? Has the forest sector learned from experience in other sectors?

### **Are policy instruments effective, efficient and equitable?**

Are the policy instruments, in place or under consideration, effective, efficient and equitable? In other words:

- Have stated objectives been achieved?
- Do the policy instruments provide value for money?
- What are their effects on distribution of wealth?
- Has research been undertaken to measure these qualities?

### **Progress of the forest sector towards a green economy?**

Is progress of the forest sector towards a green economy being monitored on an objective basis? Which areas have been successful and which less so? What obstacles have been encountered?

## **7. Key issues on the forest sector in a green economy to be addressed in a global forestry context**

This paper has addressed governance and policy instruments for the forest sector in a green economy from the perspective of the ECE region. Yet the CLI at Interlaken is a contribution to a global body, UNFF. Which of the issues briefly described above should also be considered in a global context?

### **Need for a comprehensive approach and better coordination between sectors.**

All important issues are now accepted as being multi-sectoral in nature. An approach based on only one sector is almost always too simplistic and often unrealistic. The discussion on sustainable forest management successfully widened forest policy from wood-related issues to include biodiversity, social questions and many others. Yet the green economy concept goes beyond sustainable forest management, addressing efficiency of resource use, climate change, natural capital, evaluation of all benefits and services etc. If global forest related processes are to address issues related to a green economy satisfactorily, the scope of concern will have to be widened beyond those traditionally associated with sustainable forest management, as reflected in the scope of the existing International Arrangement on Forests. This does not imply that forest-centred agreements and commitments should expand to cover all linked sectors, but that they be developed in partnership with communities representing related sectors, notably climate change, energy, agriculture, rural development and biodiversity. The recently approved EU Forest Strategy is an example of a major policy commitment on forests which explicitly addresses the question of links with other sectors, with the aim of ensuring a consistent approach. The "landscape approach" also recognises the necessity of taking a holistic approach to forest issues.

### **Need for better information as a basis for evidence based policy making**

The traditional information used for policy making on forest issues has been centred on trends in forest area, wood supply potential, biodiversity conservation and employment. These are all important, but they are not sufficient to inform policy making in a complex multi-sectoral environment. Recognition of the complexity of intersectoral linkages, and of the need to take them into account when developing policy for the forest sector, creates a need for better information, addressing a broader area, and with new requirements as regards speed of publication and economic valuation. The present international data set used by UNFF and other agencies is slow and incomplete, despite many efforts to improve it. A significant improvement in quality and scope of information will of course necessitate political will and adequate funding.

### **Need to review obstacles to valuation of and payment for ecosystem services**

As mentioned above, there is great interest in using valuation of ecosystem services as a foundation for evidence based policy making, and in putting in place systems for payment of ecosystem services. It appears that widespread use of these instruments would be beneficial to society as a whole, and to the forest sector, whose contribution to general well being would become clearer and quantified. However, for a number of reasons including problems of economic theory, weaknesses in data, tenure problems and other institutional obstacles, progress has been disappointing. These obstacles need to be identified, and removed before the full potential of a green economy can be achieved. Much of the analysis could be carried out at the global level, following the example of the debate on drivers of deforestation. However the obstacles themselves are usually national or local and require corrective action at the appropriate level.

## **8. Proposals and recommendations**

This section contains a few proposals for actions by policy makers and stakeholders, which might serve as the basis for discussion in Interlaken

### **Develop objective methods of monitoring “governance of the forest sector”**

Some of the fundamentals of the green economy are transparency and evidence based decision making, so an objective method of monitoring and assessing governance appears consistent with the fundamental drive towards the green economy. Assessing governance at the national level raises obvious questions of sovereignty and responsibility, as well as the question of who should decide, and on what basis, what constitutes “good governance”: one solution could be a consensus based, transparent and voluntary system, using agreed comparable indicators, based on national reporting. A starting point could be the questions set out above.

### **Review consistency of policy instruments and policy objectives**

At every level where policy decisions relevant to the forest sector are made (national, or subnational in those countries where forest policy is a subnational responsibility), there should be a comprehensive review and analysis of policy objectives and policy instruments relevant to the forest sector (including “other” sectors), to determine whether they are consistent with each other, and whether the interactions have been fully taken into account. The review should be carried out in partnership with all concerned, and might also consider whether the policy instruments in place, or planned, are the most efficient and effective way of achieving the stated goals.

### **Provide an adequate information base for future policy making**

At the national and regional/international levels, consensus should be sought on what information will be necessary to address present and future policy issues, notably in the context of a green economy, and steps taken to collect the information on a scientific basis, and in a comparable way. International indicator sets are one way of achieving this. Expertise from relevant sectors should be involved from the start, and wherever possible, existing data sets and monitoring systems should be used. At the international level, agencies with relevant experience and networks should work together in *ad hoc* partnerships to collect and make available the information without duplication of effort, and with maximum comparability between countries and between sectors. Forest information systems should be adapted to meet the needs of green national accounting systems.

### **Identify and remove obstacles to valuation of and payment for ecosystem services**

Valuation of and payment for ecosystem services will not become standard practice until a number of obstacles are removed. Necessary measures include the following:

- develop standards and guidelines on valuation methods, including default values for standard services (as case-by-case investigation and measurement would be impractical and too expensive)
- standard legal formats for payment for ecosystem services
- authority and resources for public bodies to pay for ecosystem services, on behalf of the community as a whole
- devise schemes which are legally sound, take account of existing tenure regimes and are sufficiently simple to provide adequate incentives to forest owners and managers to maintain and increase the supply of services from their forests.

### **Actively support the efforts to construct green national accounts**

It is probably that green national accounts will benefit the forest sector in many ways, as well as society as a whole. Forest sector experts and institutions should participate proactively in the data collection and harmonisation efforts which will be necessary to adapt the sector's own concepts and data to those required for the national accounts system.

## Annex

**Comparison between the principles of the Rovaniemi Action Plan and the pan-European set of criteria and indicators of sustainable forest management.**

Principles of Rovaniemi Action Plan	Are Rovaniemi principles addressed in pan-European criteria and indicators?
The forest sector uses all its resources, especially those arising from the forest, wisely and economically, minimising waste, recovering, reusing and recycling as much as possible. It consumes only products from forests which can demonstrate that they are managed sustainably.	Efficiency of resource use, recovery and recycling are not addressed. C&I set as a whole is relevant to identifying “products from forests which can demonstrate that they are managed sustainably”, but contain no specific reference to certification, legality etc. “Forest under management plans” (3.5) is relevant.
The forest sector contributes to mitigation of climate change by sequestering carbon in forests and forest products, and by substituting renewable wood-based products and fuels for non-renewable products and fuels.	“Carbon stock” included (1.4), and “energy from wood resources” (6.9) but nothing about sequestration or substitution, or carbon stocks in harvested wood products.
The forest sector cares for and builds up its workforce, developing the necessary skills and significantly improving the occupational safety and health of workers and giving due consideration to gender equality.	“Forest sector workforce” (6.5) addresses total number employed, and “occupational safety and health” (6.6) covered. Nothing about skills or gender equality.
The forest sector makes sure that the situation of forestry education is reviewed and improved.	Qualitative indicator B.10 addresses policies institutions and instruments for research, training and education
The forest sector takes all externalities fully into account in policy making, introducing payment for forest ecosystem services whenever appropriate.	6.4 “Expenditures for services” addresses total expenditure for long term sustainable services from forests, and 3.4 “services” addresses value of marketed services on forest and other wooded land, which should include PES. Both address actual expenditure, not valuation of non-market services, or internalisation of externalities
The forest sector bases its governance on evidence-based decision making and the transparent monitoring of progress towards sustainable forest management.	Not specifically mentioned, but the qualitative indicators as a whole cover governance, and the quantitative indicators cover evidence, while monitoring is one important use of the C&I set, so this may be seen as inherent in the C&I approach
The forest sector provides products and services of high user/consumer value.	Consumption and production in volume terms are covered (3.2, 3.3, 3.4, 6.7). Nothing about “high user/consumer value”
The forest sector seeks the active participation of civil society and the private sector.	Qualitative indicator B.11 is public awareness and participation and A.1 addresses national forest programmes or similar which are participatory.