REPORT ON THE STAKEHOLDER CONSULTATION

CONCERNING THE COMMISSION GREEN PAPER ON FOREST PROTECTION AND INFORMATION

COM(2010)66fin.

Note: This report has been prepared by Commission services to represent the inputs made during this consultation and is intended to represent only the views expressed by stakeholders. It does not commit the Commission in any way, nor does it prejudge the form or the content of any future action by the Commission.

CONTENTS

List of acronyms

- 1. SUMMARY
- 2. GENERAL CONTEXT
- 3. METHODOLOGY AND GENERAL RESPONSE TO THE CONSULTATION
- 4. SUMMARY OF RESPONSES by the questions from the green paper
- 4.1 Question 1
- 4.2 Question 2
- 4.3 Question 3
- 4.4 Question 4
- 4.5 Question 5
- 4.6 Question 6
- 5. REMARKS ON PARTICULAR POINTS OF INTEREST
- 6. CONVERGING VS. DIVERGING OPINIONS
- 7. CONCLUSIONS

ANNEX: List of contributions

List of acronyms

CAP Common Agricultural Policy
CBD Convention on Biodiversity

CLRTRP Convention on Long Range Transboundary Air Pollution

CoR Committee of the Regions

COST Cooperation on Science and Technology

DG Directorate general EC European Commission

EESC European Economic and Social Committee EFFIS European Forest Fire Information System

EP European Parliament EU European Union GHG Greenhouse Gas

ICP International Co-operative Programme on Assessment and Monitoring of Air

Pollution Effects on Forests

IUCN International Union for the Conservation of Nature

FAP (EU) Forest Action Plan

FAO Food and Agriculture Organisation (of the United Nations)

FE Forest Europe (formerly MCPFE, see below)

FS Forestry Strategy (for the EU) LBA Legally Binding Agreement

MCPFE Ministerial Conference on the Protection of Forests in Europe

MEP Member of the European Parliament

MS Member State (of the EU)
NFI National Forest Inventory
NFP National Forest Programme
NGO Non-governmental Organisation
PES Payment for Ecosystem Services

RD Rural Development

RDR Rural Development Regulation
RED Renewable Energy Directive
SFM Sustainable Forest Management

UN United Nations

UNECE United Nations Economic Commission for Europe

UNEP United Nations Environmental Programme

UNFCCC United Nations Framework Convention on Climate Change

1. SUMMARY

The Green Paper on forest protection and information , adopted by the Commission on March 1st 2010, launched a public consultation about the EU involvement in forests and forestry from the perspective of getting European forests ready for climate change. It is based on the relevant elements of Key Actions 6, 8 and 9 of the EU Forest Action Plan.

5 questions were asked to the general public:

- 1. Is there a need for more attention to the balance between forest functions?
- 2. Is the forest sector ready to face the climate challenges? If not, is EU action needed?
- 3. Are existing EU/MS forest related policies adequate? If not what should be done?
- 4. Does the implementation of SFM need to be updated? How to conserve the gene pool?
- 5. Is existing forest information adequate? What can the EU do?

In addition, a 6^{th} question invited stakeholders to comment on any other related issue they might want to raise.

At the closure of the public consultation on 31st July 2010, the Commission had received 261 responses from elected bodies, governments, public institutions, business and industry operators and their organisations, private forest owners and their organisations, non-governmental organisations, the research community and citizens at large. These replies were rather evenly distributed among the interest groups, but remained heavily concentrated in Western Europe, with low response from Member States that joined the EU in 2004 and 2006.

This report summarizes the replies received and attempts to set out the main lines in the opinions about forest protection and information that that exist among the stakeholders.

The most important outcomes of this consultation are:

- Among all stakeholder groups and in all MS there is a general interest in addressing forest information at EU level. A sizable majority of reactions argue for more harmonised and more readily available information about EU forests, with links being made to a variety of policies and issues, such as forest production estimates, biodiversity in forests, carbon accounting , valuation of non timber forest services and goods, etc....
- There is high awareness of the need to conserve forest genetic resources. This is perceived as a transnational issue where a lot of work remains to be done in order to ensure the resilience and adaptability of forest ecosystems in the face of changing climatic conditions.
- There is also widespread consciousness that more research efforts are needed to establish adequate knowledge about the nature, extent and expected effects of climatic change on forests and the forest sector. Consequently, continued EU support for research is requested.
- There is a general consensus that forests in the Mediterranean region are likely to be most affected by climate change , with mountain forests and Central European (mostly coniferous) mentioned next. The evolution to dryer growing conditions is the most mentioned effect of climate change.

2. GENERAL CONTEXT

The European Commission adopted on March 1st, 2010, a Green Paper¹ which lays out the situation of EU forests and raises a number of questions about a European Union approach to the protection of forests and to information about forests and their condition. Contributions to the public debate launched by this Green Paper from the EU Member States, other European countries, EU institutions and stakeholders in general received by the Commission are summarized in this report.

The paper starts from the principle that *Europe's forests are a precious resource that must be protected against the harmful impacts of climate change*. Their wide range of social, economic and environmental functions and services means that the stakes are high. The Commission wants to explore what European action can add to national efforts, respecting the subsidiarity principle, to safeguard forests and maintain reliable, coherent and up-to-date information about them.

As mentioned in the Commission's White Paper on Adaptation to Climate Change of 2008², the importance of forests in relation to climate change is now beyond discussion. Ensuring that Europe's forests can continue to perform all their functions is therefore essential to the EU's climate strategy. The debate launched by the green paper will help to design effective EU policies related to climate and forests and it will also feed the discussions towards the future EU Biodiversity strategy for 2020.

Forests and climate change

Forests serve multiple and inter-related social, economic and environmental functions. They provide jobs, income and raw materials for industry and for renewable energy. They protect soil, human settlements and infrastructure, regulate freshwater supplies, local weather and conserve biodiversity. In climate terms, forests act as 'sinks' that absorb carbon dioxide (CO₂) when they are growing but they are sources of CO₂ when they are cut, burned or damaged. Globally, the loss of forests and other land use changes are now responsible for 15-20% of global CO₂ emissions.

There is growing concern that the rapid rate of man-made climate change could surpass the natural ability of forest ecosystems to adapt and alter the suitability of whole regions for certain forest types. A shift in the natural distribution of tree species and changes in the growth and stability of existing forests is inevitable and already ongoing, but no comprehensive information about the nature of ongoing and expected changes is currently available.

Content and aims of the Green Paper

The Green Paper sets out the main challenges facing Europe's forests. It presents existing forest information systems and the tools available to protect forests, and raises a series of questions relevant to the development of future policy options to better address challenges related to protection of forests and forest information.

Since competence for forest policy lies primarily with the Member States but many of the existing and potentially relevant instruments for adaptation concern EU policies and actions, a debate on adaptation to climate change in the forest sector and enhanced forest protection in Europe has to take place both a national and at EU level.

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¹ COM(2010)66final

² COM(2008)147final

The wider discussion on forest protection and information

The stakeholder consultation was launched with the adoption of the Green Paper on March 1^{st} 2010 and ran for 5 months until July 31^{st} 2010.

The Green Paper was intensely discussed at a forest protection conference co-organised by the Spanish Presidency and the European Commission on 6-7 April 2010, resulting in the Valsaín Declaration³.

As part of the consultation the Commission organised a workshop and stakeholder meeting in Brussels during the Green Week in June 2010.

On 26 April 2010, the General Affairs Council adopted conclusions on forest fire prevention⁴, indicating the need for increased vigilance and action as well as the need for information about forest fires.

On 11 June 2010, the Environment Council adopted conclusions⁵ welcoming the Green Paper and requesting the Commission to further explore the issues it raises within the framework of the Forestry Strategy for the EU and the EU Forest Action Plan.

On 15 September 2010, the European Economic and Social Committee adopted an opinion⁶ on the Green Paper.

The Committee of the Regions is expected to adopt a resolution about the Green Paper before the end of 2010.

The Environment Committee of the European Parliament has nominated MEP Kriton Arsenis as its *rapporteur* to draw up an own initiative reaction on the Green Paper, which is expected to be adopted in spring 2011.

The answers to the questions raised by the green paper and the conclusions and resolutions of the different EU institutions will allow the Commission to consider next steps in relation to forest protection and information.

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³ http://www.mma.es/secciones/biodiversidad/noticias/pdf/Declaracion_Valsain_definitivo_en.pdf

⁴ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/jha/114026.pdf

⁵ http://www.consilium.europa.eu/uedocs/cms Data/docs/pressdata/en/envir/115113.pdf

⁶ CESE 1179/2010

3. METHODOLOGY AND GENERAL RESPONSE TO THE CONSULTATION

The questions raised in the consultation concern balance of forest functions, readiness of forests for climate change, adequateness of forest policies, adaptation of forest management and the state of forest information systems. Stakeholders have also been invited to provide views on any other subject they might wish to mention.

Structure of the process

The text of the Green Paper was placed on the Environment website of the Commission and on the "Your Voice in Europe" consultation portal of the Commission. Contributions responding to the 6 questions asked in the Green Paper could be made by simple email or by the IPM system. As many respondents appeared to encounter technical difficulties with the IPM reply format, the Commission accepted delayed contributions by email until the end of August 2010.

The Green Paper was available in all EU languages on the Europa Website, while the corresponding Commission Staff Working Paper and the IPM reply format were available only in English.

Respondents were asked to indicate whether the input was individual or from an organisation, and in the latter case to provide their affiliation.

Response

The consultation resulted in 261 contributions, most of which followed the recommended questionnaire. Those ones that did not follow the format have also been considered in this report to the extent possible, except when they were non-topical.

- 144 contributions were sent to the IPM system
- 117 contributions were sent by email or mail to DG Environment

Contributions were grouped based on their type and represented interests. The following groups could be distinguished:

- Governments and public bodies, including national and regional forest administrations, national and regional elected bodies and other public sector entities; this category also includes semi-governmental bodies, such as state-owned forest companies
- Private companies from the forest sector and forest based industry. This type of contributors included the whole range of private companies involved in various activities related to the forest sector (e.g. timber processing, consulting, forestry services) as well as their federations.
- **Private forest owners and individual persons.** This category includes a broad variety of contributors ranging from private forest owners and landowner associations to interest groups within political organisations and individual citizens. It should also be noted, that most of those who commented as individuals did in fact hold professional or owner positions.

- **Academia.** Contributions were provided by research institutions universities and individual scientists.
- NGOs. Most of these organisations can be considered as environmental NGOs, working on either international, EU, regional or national level.

It should be noted that some responses could have been classified in different groups. The category declared by the respondent was generally accepted, except when it was clearly inappropriate.

Figure 1. Number of contributions by group

Type of group	number of replies
Type of group	number of replies
governments and public bodies	55
Parliaments	7
business and industry	48
individuals and forest owners	90
NGOs	40
researchers and academia	21
TOTAL	261

Figure 2. Number of contributions by MS of origin. (All organisations which represent a wider than national interest are counted as EU/INT).

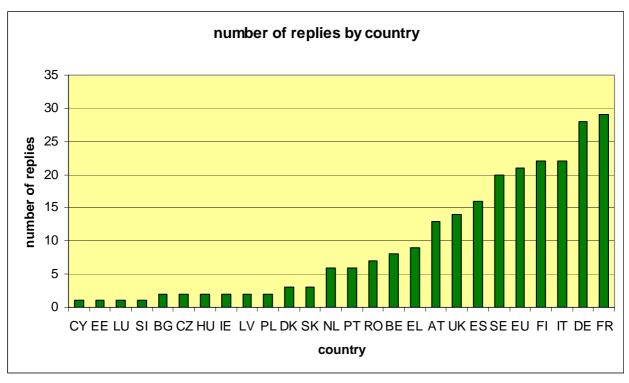
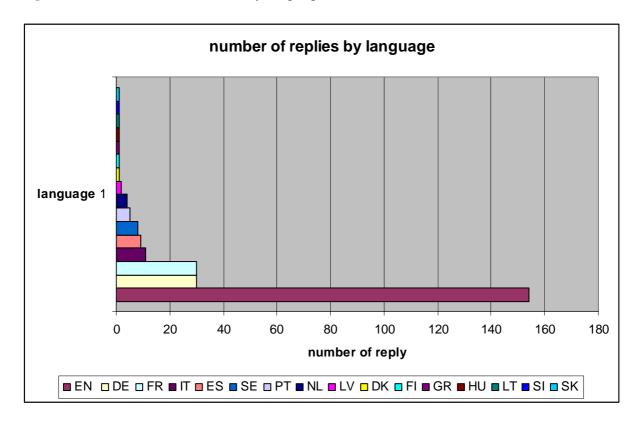


Figure 3. Number of contributions by language used



Overall, it can be said that there was substantial interest in the consultation. The number of contributions can be considered as high, compared to the 1st time that the Commission launched a broad stakeholder consultation on forest issues, during Forestry Strategy reporting exercise in 2004 that preceded the development of the Forestry Action Plan, which resulted in only about 50 replies. Still, experiences from other internet consultations show that often a higher number of responses is received, e.g. over 5000 inputs to the CAP reform consultation earlier this year or almost 3000 on the Biodiversity 2020 consultation. On the other hand, this consultation requested qualitative inputs from the stakeholders, as compared to the quantitative contributions being asked in most other consultations. In any case, it is believed that qualitative comments provide a very valuable input into the reporting process. Therefore, it may be concluded that the objective of the consultation was accomplished.

Some stakeholders have criticised that the IPM reply format had been made available only in English and that the text of the Green Paper in other languages than English was difficult to find. Nevertheless it should be noted that even though most of the comments were in English, contributions were submitted in the German, French, Spanish, Swedish, Dutch, Portuguese, Italian, Hungarian, Slovenian, Latvian, Danish, Finnish and Slovak.

Summary of responses and presentation of results

Most contributions responded to all or most of the questions proposed in the Green Paper. In addition, some NGOs and professional associations/federations provided more detailed comments and reflections in more general policy papers.

Generally, most of the comments received are forward-looking, addressing a perceived need for change in specific areas of the EU Forest Sector. Issues presented under question 6 on any other comments could often not be directly related to any of the other questions.

All inputs introduced through the IPM system can be consulted on environment forest website http://ec.europa.eu/environment/consultations/forests_en.htm

Cautionary notes on interpretation of the results

This report is a summary of contributions received.

There are some important points to note so that this report and its context are clearly understood:

- The consultation exercise was not conducted like a market survey or a public opinion poll. Those who responded were not selected or solicited on the basis of any scientific or random criteria as being representative of a wider community or section of the population. A set of 5 questions about forest protection and information mentioned in the Green Paper formed the basis of the consultation. Anyone interested was free to respond or not. The process was therefore driven by the participants and the results are not representative in a statistical sense.
- The high number of responses from private persons, forest owners and business operators is seen as a success. But one reason for the high numbers is that, in some cases, particular interest groups mobilised their members to take part, who generally sent similar inputs.
- There is a geographically uneven spread of replies among Member States. In particular, Member States that joined the EU in or after 2004 are poorly represented with mostly one or two replies each. This may be attributed to a lower degree of awareness of EU processes, lower Internet use and the language barrier caused by the English-only IPM system, among other reasons.
- While most inputs indicate some kind of professional relationship to the forest sector, a large number of replies are from people who only have a personal interest.
- Submissions from environmental organisations indicate that there was less individual mobilisation in this part of the stakeholder spectrum.
- Several NGOs and professional federations coordinated their actions across borders by making EU-level submissions.
- Inputs made by most MS governments, public bodies, and parliaments at both national and regional level were joined in the public bodies group. Some EU and international organisations have also been included in this group, i.e. EUSTAFOR, Alpine convention, IUCN, UNEP and Forest Europe.
- Finally, it is not always 100 % clear how to classify an organisation in a particular group of stakeholders as there are grey areas in between them. In addition, the acceptance of national as well as EU-level organisations led to instances of overlap and duplication, where organisations and individuals appeared twice with the same views. Also, many respondents sent replies that had a broader or different scope than their category suggested. For example,

some replies from "research and academia" seem more oriented towards policy than science or education.

The net result of these considerations is that forest sector stakeholders have played an active role in the debate. Still the result of this consultation does not allow to conclude that there are certain majority views at policy level.

4. SUMMARY OF COMMENTS

4.1 Response to question 1:

Do you think maintaining, balancing and enhancing forest functions should be given more attention? If so, on what level should action be taken, EU, national and/or other? How should it be done?

Governments and public bodies

There is widespread agreement on giving more attention to maintaining, balancing and enhancing forest functions. Only one respondent asked to increase the productive aspect, while a few others consider that protective functions, in particular biodiversity and avoiding intensification for bioenergy production should deserve more attention in the future. Some respondents believe that the balance of the different functions is already well covered under the national laws without the need for paying more attention to them.

On the level of action to be taken, the majority of the replies agree that action should be taken at all levels: from the local, to the regional, the national up to EU level. Some of them stress the need to respect the subsidiarity principle and to consider the specificities of the different regions.

At EU level, in the context of the FS and the FAP, the proposed actions include a possible update of both instruments and underline the cooperation and coordination role of the EU. Some of the respondents mention the role the EU could have providing framework rules, flexible financial instruments, forest information, a common forest policy or even a legal basis in the Treaties.

A few respondents believe in a pan-European approach linked to the Forest Europe process and to a legally binding agreement on forests. Only one respondent believes that action shouldn't exceed the national level.

The replies received from the parliaments, senates or other national institutions generally agree that more attention should be paid to forest functions; some of them acknowledge the EU role on coordination and on information. One of the replies underlined the need to respect the subsidiarity principle. Other stressed the idea of the EU emphasizing forestry mitigation measures within the MS and promoting the expansion of EU forest cover.

Business and industry

Replies have come mostly from forest based industry and woodworking federations, from (semi-)public forest industry boards as well as from local producer groups and individual companies, including consultancies and SMEs. The most frequent message in the reactions from this group of stakeholders is that within a general need to pay more attention to all forest functions, there is a particular urgency for more focus on wood production and to give more attention to forest management. There appears to be a general feeling within this group of respondents that forest policy of the last decades has shifted too much to environmental and social considerations, with the economic function being neglected.

Some of the reactions argue that the need to focus on forest management with a productive approach has become especially urgent because of the increased demand for forest output that has been generated by the renewable energy objectives in the RED of the 2009 EU Climate and Energy Package. In this context, a large number of respondents mention that they expect policy measures to impose a "cascade use of wood" in the EU, meaning that wood should in the first place be used as a material, then recycled if possible and only be burned for energy generation if no other use is possible. Respondents argue that such a "hierarchy of wood use" produces the largest climate benefit by substituting more energy- intensive materials and also generates the highest level of employment in the forest-based sector.

In general forest business and industry operators favour an integrative approach to all forest functions, clearly defending multifunctional forest management and rejecting spatial division between economic, environmental and social forest functions. In this view, forest protection should be the result of adequate forest management and not of setting aside special protection areas. They see the actual division of competences on forests and forestry among the different Commission services as needing more co-ordination and less fragmentation.

As regards forest policy, there is a tendency to keep the main responsibility at the national level. Only a few references are made to the EU Forestry Strategy and the FAP. There is also some support for the current Forest Europe initiative to start negotiations on a Legally Binding Agreement on Forests in Europe.

Forest owners and private citizens

The great majority of the respondents agree with the need of paying more attention to maintaining, balancing and enhancing forest functions. Only a few respondents do not see more attention as necessary or consider that the productive function is the one that should be promoted.

A majority in this group believes that action should be taken at all levels: from local to national and EU level. Some of the replies consider that action should be limited to national level and two respondents stated that action should be taken at global level. Others do not specify the level of action to be taken.

Proposals for action are quite diverse. The main suggestions are setting up an appropriate forest fund, improving forest reporting, coordinating research projects, supporting training and public awareness and having an EU role on land use and health policies. Other proposals for action concern an EU role on forest carbon management, on certification and on the need to enhance coordination between MS (i.e. integration of the Standing Forestry Committee and the Council Working Group on forests). At the policy level the proposals go from having a Common EU policy or Directive, to having minimum SFM standards, setting up common EU forestry principles or reinforcing forests and forestry issues within the CAP. Some mention the need to respect the subsidiarity principle. At international level a few of the contributors have proposed to strengthen the pan-European forest policy process and the EU role in global forest policy processes.

The measures proposed to be taken at national or local level are to encourage the grouping of forest owners or to support local community forestry.

NGOs

There is a general conviction within NGOs of the need to give more attention to balancing and enhancing forest functions. Some of them underlined that in particular the environmental function should be reinforced as well as the non commercial services provided by forests. Only one of the NGOs believes that it is the economic function that should be reinforced. Another one states that SFM covers already all forest functions in a balanced way.

Almost all the NGO respondents agree that action should be taken at all levels. The EU is seen as a provider of guidance and added value to national policies. Some of the ideas suggested are that the EU should avoid forest conversion, improve coordination between MS, improve information on forests and support research. Part of the respondents raised the need for a stronger political recognition of the forest sector. Some proposed having a legal framework with appropriate financing; others suggested developing a permanent forest observatory or an integrated land use policy. However there are divergent views about what action should be taken. Other NGOs are more inclined to better implementation of existing strategies and legislation, amending them if necessary (a suggested example has been the amendment of the RED).

Research and academia

Respondents generally agree that there is a need to pay more attention to balancing forest functions, although not all of them answered the question explicitly and most did not elaborate on what aspects should be given more attention. Some stressed the importance of certain aspects that they consider to be overlooked, such as the role of mycorrhizae and the climate change mitigation benefits of increasing timber harvests. Several respondents claimed that, while multifunctionality was important, all forests cannot always be multifunctional, and functions may need to be separated.

Only about half of the respondents addressed substantively the level at which action should be taken. Most of these suggested both MS and EU levels, or mentioned all levels, including sub-national and/or global scales. There was a certain divergence among those who identified priorities in terms of the level of action. Some respondents stressed that action should be taken at the lowest possible level, including sub-national scale (e.g., MS and EU level action should support local decisions), while others emphasized the need to strengthen EU-level action.

4.2. Response to question 2:

To what extent are EU forests and the forest sector ready to address the nature and magnitude of the challenges posed by climate change? Do you consider particular regions, certain countries more exposed/vulnerable to the effects of climate change? What sources of information would you base your answer on? Would you see a need for EU-level early action to ensure all forest functions are maintained? - How could the EU contribute to add value to the respective efforts of MS?

Governments and public bodies

There is a predominant view that EU forests and the forest sector are not ready to address the challenges posed by climate change. However, many argue that there is not enough information to reply to this question as there are many uncertainties and a lack of reliable data on this issue. Others believe that indeed, some regions are ready to face climate change, without being able to generalise on the situation at EU level. Many others have not explicitly replied to this part of the question.

The majority of respondents believe that the Mediterranean region, Southern Europe in general and mountainous forests in particular are the most exposed and most vulnerable zones to effects of climate change. They refer to research, studies and publications. Peripheral areas of tree species distribution i.e. of Norway spruce, are also mentioned as vulnerable. Many replies state that all regions will be affected in one or other way. Only a few have not expressed views on this mainly because they considered that more information is needed to reply consistently to this question.

A large number of respondents support the idea of EU early action, with varying views on what that should mean; i.e. increasing the focus on climate change in the Rural Development measures, action on information sharing or fire preventive measures. Some respondents argue that there is no need for EU early action because it is adequate as it is now or because action should be taken at national level.

On how the EU can contribute, a large number of measures have been suggested, the most common being supporting research on forests and climate change, better communication, raising awareness, exchange of information and experiences, including mitigation and adaptation measures within the future RD Regulation, support for forest protection measures, as well as prevention of forest fires,. Adopting a long term forest adaptation EU Strategy, fighting transnational spread of forest pests, establishing an EU regulatory framework, a Forest Fire Regulation, setting guidelines for forest management or drafting common forestry objectives were among the legal measures proposed.

Other proposed measures are: to encourage forest expansion, to establish an international alert system, to create solidarity mechanisms and specific funds for severe crisis situations, to acknowledge the value of management plans, to bring forest carbon credits in the ETS or to support the pan-European LBA on forests.

The parliamentary replies generally say that EU forests and the forest sector are not ready to face the challenges posed by climate change. One of them states that there is not enough available information to reply to this question. Some of them identified the Mediterranean basin and mountain forests as vulnerable areas and two of them agree on the need for EU early action. Some of the proposals for action suggested were to have an EU initiative and a

binding agreement on SFM, incentives in existing EU policies (CAP, Cohesion policy, etc) or an independent forest fund. Others addressed the EU role on forest information, monitoring and coordination. One reply raised the point of reviewing the Community Plant Health Regime and another addressed the need to support forest biodiversity and reduce the impacts from fossil energy use.

Business and industry

There appears to be a common view among the economic operators in the forest sector that European forests are very much ready to face climate-related challenges because their productive capacity, which yields carbon sequestration in standing forests, wood-based materials and biomass for renewable energy is seen as a major asset to contribute to climate change mitigation and adaptation. Consequently, numerous reactions argue for facilitating increased forest growth and production oriented forest management, with some even clearly recommending the "Nordic model" as an example for Europe. It should be noted that all reactions focus on the credit side of the carbon balance and none of them mention possible debits that may result from greenhouse gas emissions related to forestry practices. Likewise, the potential for increasing forest output is taken for granted, without consideration of possible negative impacts of climate change on primary production of forest ecosystems.

As regards particular vulnerability of certain areas to the effects of climate change, many respondents indicate that forests in S. Europe and the whole Mediterranean region are especially threatened by temperature rise and increasing water stress. A smaller number of reactions maintain that all regions will be affected by climate change.

There is a general confirmation of the need for early action to maintain forest functions. The majority of replies to this question are limited to indicating that immediate measures have to be taken to raise production and refocus policy on economic aspects of.

Concerning ways and means for the EU to add to the efforts of MS, this group of stakeholders has proposed an impressive list of actions, measures and issues to be addressed: support increasing wood use, more powerful forest policy and administration, continuation and expansion of forest measures in RD, support for forestry and climate research, joint measures to collect and process forest information, forest condition monitoring, transfer of SFM expertise between MS, support gene banks, etc A few reactions even propose top down measures from Brussels to free operators from national limitations. One reply proposes an EU forest fund.

Forest owners and private citizens

Nearly two thirds of the respondents that have replied to this question believe that EU forests and the forest sector are ready to face the challenges faced by climate change while others considered that they are not ready.

Most of the respondents believe that some regions are vulnerable or particularly exposed to climate change: Southern and Mediterranean forests, followed by lowlands and Nordic forests and in the third place mountainous forests. Some of the replies didn't specify which areas are the most vulnerable. One of them replied that those forests at the extreme of the natural

distribution ranges of tree species are at risk and others considered plantation forests outside natural ranges of species as vulnerable. Only one respondent did not believe that particular regions are vulnerable to climate change.

A majority considered that there is a need for EU early action, while a minority in this group disagrees on that. Different possibilities on how the EU can contribute to adding value to the MS efforts are mentioned. Some of the more horizontal actions are: increasing research activities on forests and climate change, supporting knowledge transfer, training, coordinating between MS, improving public information and setting up an information basis. At policy level some of the measures proposed are: establishing common guidelines, payments for ecosystem services and other specific funding, setting up an EU forestry policy (for example with an EU forest Directive or an EU Forest Strategy) or further developing the FAP. Other actions that have been raised are the common fight against forest health problems and forest fires, the protection of old growth and natural forests, the establishment of voluntary forest protection programmes, support of renewable energy from forests, afforestation and more active forest management.

NGOs

Most of the NGOs believe that forests and the forest sector are not ready to face climate change challenges. Others considered that there are still several knowledge gaps that prevent to reply to this question.

A great majority have identified Mediterranean and mountain areas as the most vulnerable and susceptible to climate related challenges. Other vulnerable areas mentioned were the Northern region, regions where tree species composition deviates from the natural situation, regions with monocultures, tropical areas or regions at the limit of the ecological ranges of tree species.

There is a general agreement on the need for taking early action at EU level with proposals of very different nature i.e. providing appropriate information, monitoring and research on the state of the forests, increasing protected areas and connectivity, completing the Natura 2000 network, using the MCPFE/FE criteria and indicators, better cooperation, addressing rural abandonment, increasing forest resilience, establishing management plans for protected areas, improving and streamlining existing legislation related to forests and land use (RED, RDR...), developing an EU forest policy framework and funding, etc.

Research and academia

The majority of respondents that addressed the sector's readiness to face climate change believe that more should be done as the sector is not sufficiently prepared. Some replies focussed only on certain aspects (like threat of forest fires), others considered that our preparedness is generally lacking, and warned about the gap between the theoretical considerations and practice on the ground. At the same time, some respondents considered that EU forests are ready to face the challenges, and cautioned against over-reacting. One respondent suggested that, while Fenno-Scandia is sufficiently prepared, other parts of the EU may need more to be done.

There was a substantial range of views regarding the regions most at risk. Among geographical regions, the Mediterranean was most often mentioned, but it was not always identified as most threatened. Among other regions, mountain forests, Central European spruce forests and boreal forests were noted. Some associated increased vulnerability not with geographical areas, but with forests that have been mismanaged and/or those at the edge of their natural ranges. Several respondents suggested that all forests were at risk, only the nature of the threat was different.

Most respondents saw a need for EU-level action, sometimes stressing the urgency, and no reply opposed it. A number of replies stressed that any such action should be based on local knowledge and/or support local action.

Respondents identified a very broad range of possible contributions that could be made at the EU level. The most often mentioned actions are related to co-ordination and the facilitation of co-operation on sharing knowledge, information and best practices. Many stressed the need to address natural disasters, especially forest fires, e.g., through the development of a "crisis response capacity" or the establishment of a "disaster response fund". Some called for a "framework directive" on forest management. Several respondents stressed the need for funding, especially for research. One noted the need to screen existing EU funding schemes with a view to take adaptation needs into account. Several respondents mentioned the need for forest monitoring and/or an early warning system for pests and diseases.

4.3. Response to question 3:

Do you consider that EU and MS policies are sufficient to ensure that the EU contributes to forest protection, including preparing forests for climate change and conserving biodiversity in forests? In what areas, if any, do you think further action may be necessary? How might this be organized, under the given policy framework or beyond?

Governments and public bodies

Most of the respondents believe that existing policies are not sufficient to ensure forest protection, both in general or in some policy areas, i.e. civil protection, forest fires, biodiversity, nature, biomass, non marketable services, forest health or other areas.

Others believe that the current policies are adequate, but with room for improvement. They mention linking policy developers with managers, including non marketable services, solving implementation problems etc. One respondent believes that everything is already covered by the Forest Europe process.

Several examples for further action were proposed by the contributors:

- At national level: reinforcing the NFPs and other national measures, supporting the preparation of an LBA on forests in Europe.
- At EU level: adapting funding possibilities, upgrading forests and forestry within the RD Regulation and the CAP, creating and independent forest fund, legislative action such as a Framework Directive (supported but some and opposed by others), increasing cooperation, coordination, monitoring, research, advice for forest owners, implementing the commitments of the FE process, investing in risk prevention, payments for ecosystem services, establishing early warning systems for invasive alien species, considering the trans-boundary dimension of some forest health problems, improving the FS and the FAP, increasing certification etc.

Only one of the contributors from the parliaments and senates believes that existing policies are adequate for forest protection. Two of them mention that there is insufficient integration of the existing policies. Others did not specifically reply to this question. On further action to be taken, several reactions suggest the coordination of MS and EU policies, the establishment of a Regulation or a financial support system for forest monitoring and protection, a simple proposal of minimum standards, objectives and goals for monitoring or the integration of forestry into the RD Regulation.

Business and industry

Concerning sufficiency of existing policies related to forest protection, most stakeholders who replied to this question indicate that they are satisfied with the current situation and that they see no need for additional action at EU level. Some also propose to give more importance to MCPFE commitments and to the outputs of the Forest Europe process.

Other respondents in this group mention shortcomings of the present situation by advocating global forest policy and planning, rejecting EU environmental policy as too cumbersome and

deploring that there is currently no specific attention for forests and forestry at EU level, highlighting issues such as forest production capacity and forest fragmentation.

As regards areas of further action and means to go forward, a large variety of issues are mentioned as being in need of more attention, among which clear preferences are hard to discern. Points brought up are, i.a.: more carbon storage in forests, more wood production, a European forest convention as an example for the rest of the world, formal/official recognition of SFM, more EU involvement in forest information systems, more financial support for the forest sector and payment for ecosystem services (PES).

Forest owners and private citizens

This group of stakeholders has replied in a rather fragmentary way to this question, with slightly over a third of the answers indicating policy insufficiency, somewhat less than a third saying that there is enough attention for forest protection in EU and MS policies and the remaining third giving no answer.

Among the replies indicating sufficiency, references are being made to Rural Development, Energy Policy, and the discussion on a Legally Binding Agreement under the Forest Europe process, as examples of adequate attention for forests and forestry. Nevertheless, lack of coordination between MS and EU policy as well as need for more support and incentives are also mentioned. Some replies also indicate that there is a contradiction between the protection policies (such as Natura 2000) and the policies requiring increased forest production (such as the renewable energy directive).

Reactions that mention a lack of policy attention mainly call for more constraining EU and MS intervention in the field of renewable energy, for imposing the principles of SFM in a binding manner, for more policy work on forests and climate change and for giving more attention to the economic forest function in general. One input specifically raises the problem of increasing deforestation of planted forests to make room for nature protection areas that focus on open habitats.

As regards the question what further action is needed and how it should be organized, a very large variety of issues have been addressed.

The suggestions that are most frequently mentioned are listed below:

- more support for forest owners, who are, or will be, victims of climate change;
- more scientific work on adequate measures to ensure adaptation of forests to climate change;
- a solid forest fire policy;
- promotion of ecologically sustainable forestry;
- conservation of biodiversity in hot spots and connectivity between forests;
- financial support for adaptation to climate change and for carbon sequestration in forests;
- financial support for active SFM;
- more personnel in forest management, more training for forest managers;
- maintaining the forest area and extending it through plantations; reinforcement of the 2nd pillar of the CAP;
- a forest DG in the Commission
- an independent forest administration for the EU

- an EU forest framework directive;
- a pan-European Forest Convention.

NGOs

Almost all the respondents agreed that the current policies are not adequate to ensure forest protection and propose further measures, among which most support goes to a Forest Framework Directive, followed by the establishment of an EU forest database, increasing research on forests and streamlining financial support. Some other actions supported by one or two respondents have been for instance to implement the FAP, to encourage conservation, to restrict bioenergy production or to reduce intensification for bioenergy purposes, to increase the forest area or to introduce effective climate change mitigation measures inside the RD Regulation.

Only a few of the NGOs that replied to this question consider that the current policies are sufficient as they are now or that they would be sufficient if properly implemented and increasing their efficiency.

Research and academia

Few respondents from this group of stakeholders addressed this set of questions, and a number of the replies are ambiguous or open to interpretation. The substantive replies generally consider current policies inadequate at least in certain aspects. A couple of replies suggest that current policies may be adequate, but are inadequately implemented, while one stresses that existing policies are often contradictory and should be harmonised. One respondent noted that current policies are adequate in Sweden.

Some of those that consider current policies inadequate claim that our current knowledge base is insufficient to support new policy instruments. Several replies call for policy action related to fires (training, sharing best practices, improving strategies), as well as information exchange and training. Several respondents stressed the need to support SFM and/or the implementation of the Forest Europe principles, while one noted that existing forest-related policies are targeted at protecting forests, and new instruments should promote forest use. Other suggestions include, inter alia, support for forest certification, strengthening forest-related rural development measures, introducing "cross compliance" for forests and the establishment of a "Forest Economy Council".

4.4. Response to question 4:

How could the practical implementation of SFM be updated in order to upkeep the productive and protective functions of forests and overall viability of forestry, as well as enhance the resilience of EU forests in view of climate change and biodiversity loss? What steps are required to ensure that the gene pool in forest reproductive material can be successfully conserved in its diversity and adapted to climate change?

Governments and public bodies

There is a general belief that SFM is a permanently ongoing dynamic process. The main ideas mentioned to update the practical implementation of SFM have been: to include SFM principles into the forest policies, to have appropriate funding for SFM, to develop payments for ecosystem services, to better define sustainability, to provide for updated information, education, training, subsidies, and research, to support SFM with legal instruments, proper monitoring and strategic planning, to assure natural regeneration, to develop close to nature forest stands, to increase connectivity and adaptive sylviculture and to include the FE approach (criteria and indicators) into the NFIs.

Only 3 contributors believe there is no need for efforts to adapt SFM as they think adaptation is inherent to the concept.

Several concrete steps have been suggested to ensure the conservation of the gene pool in forest reproductive material. Starting from close cooperation and communication, there is agreement on the need for more research (e.g. continuation of the EUFORGEN project), to encourage in-situ and ex-situ conservation, adaptation of national legislation, establishment of national programmes for conservation of genetic resources, selection of provenances and adapting sylvicultural practices to close to nature management. Others suggest to monitor the presence of pests and diseases on propagating material and to support tree improvement programmes as well as to establish a network of forest biodiversity centres. Two contributors see no need for extra action to ensure the conservation of the gene pool.

Parliaments and other elected bodies that replied to this question believe in the need to update the forest protection framework and in a more flexible approach to forestry practices. For the conservation of the gene pool they raised the following ideas: to set up national strategies, intergovernmental, scientific and political platforms on biodiversity. Other proposals involved the setting up of gene banks, the creation of in-situ reserves, appropriate selection of tree species, risk diversification and the use of natural regeneration.

Business and industry

A very large majority of reactions from this stakeholder group gave a positive reply regarding the needs and means to adapt SFM in the light of climate challenges. Most mentioned suggestions were: evolution towards more active forest management, full application and formalisation of existing MCPFE commitments and reporting system based on criteria and indicators, as well as the notion that SFM should be seen as a dynamic concept in which continuous updating should is self-evident. In addition, a considerable number of more topical reactions asked for increasing attention for particular issues, such as the importance of wildlife and game management and water management in forest areas. It should also be noted

that most of the positive reactions to this question also indicate that adaptation of SFM should take place at local or at Member State level, with some adding that no new concepts should be proposed.

Only a few stakeholders indicated that there is no need to adapt the SFM concept, basing themselves on the principle that their actual local or national situation is satisfactory.

Very few of the replies in this category have made a reference to biodiversity conservation in their answer, although this was explicitly mentioned in the question.

About half of the respondents from business and industry have provided views on genetic conservation and climate change. All the inputs they made show a general concern about future conservation of the forest gene pool and its diversity in relation to climate change challenges. Suggested measures by this stakeholder group are: setting up an EU network or initiative for forest gene pools conservation, organizing and maintaining seed banks in a long term planning perspective, investigation and breeding programmes to produce adapted varieties/provenances, use of natural regeneration to guarantee future diversity of genetic material.

Forest owners and private citizens

Slightly over half of the respondents in this category have answered the question about whether there is a need to update the SFM concept from a range of different perspectives. Among those replies almost none indicate that there would be no need to update SFM. Indeed, almost all reactions explain in one or another way that it may be time to have another look at how sustainable forest management should be defined and implemented. Many people argue that SFM should be seen as an inherently dynamic concept that should be flexible enough to react and adapt to changing conditions almost "by itself" and at the local level.

The following suggestions on how to adapt SFM can be noted:

- more attention for multifunctionality of forests;
- increased focus on adaptation to changes in climatic conditions, with due attention for local conditions;
- training and awareness raising for private owners and forest managers about climate change challenges;
- more intensive forest monitoring to allow rapid responses to harmful impacts;
- protection of biologically valuable areas to ensure conservation of diversity of species and resilience of forests;
- intensification of forestry to produce more wood;
- establishment of guidelines for forest management and information to the public about the role of forests and forest management;

Finding a better balance between productive functions and ecosystem protection is a remark that occurs repeatedly, albeit with quite different suggestions for actions, such as: more protection of ecosystems, increased intensification of forestry, fostering demand and profitability by more use of wood. Some respondents also call to give priority to wood produced in the EU.

The question regarding ways and means to conserve the forest gene pool was answered by slightly less than half of the respondents in this group. Among the replies, there appears to be a general agreement about the need for more research into topics such as local provenances of tree species, adaptability of provenances, plasticity of tree species in a changing environment and related issues.

Much more diverging reactions have been received about practical ways for genetic conservation, with some of them showing diametrically opposed views, e.g.:

- relying mainly on natural regeneration of forests vs. setting up man-made systems like gene banks, seed orchards and nurseries;
- giving preference to local tree provenances vs. importing adapted species from other countries.

Furthermore, the protection of old forests as gene reserves is sometimes mentioned, as well as avoiding the use of GMOs in forest reproduction material.

NGOs

All the NGOs that replied, except one, agreed on the need to update SFM. Different suggestions on how to do this were made, for example by increasing connectivity, focusing on ecological or close to nature management, long term planning, setting minimum binding SFM standards and protecting old growth forests.

Some suggested having minimum criteria for public support to forestry and introduction of binding "good forestry practices" as SFM is seen as a weak concept. From a different angle, others proposed the strict application of the FE criteria and indicators to report on implementation of SFM, adaptive management strategies, monitoring, a better definition of SFM and the assessment of its practical implementation and encouraging conservation versus intensification of production.

Very different views have been received on the steps to be taken for the conservation of the forest gene pool. Some believe in monitoring and information, others in the protection of old growth forests and undisturbed forests, increased connectivity, ecological networks, natural regeneration, close to nature management, variability of seed sources and mixed forests. Others propose having guidelines for the selection of the forest genetic material, to use native species, having breeding programmes, national/EU gene banks or in-situ and ex-situ conservation programmes.

Research and academia

Not all respondents addressed this question. One reply considered this a "question too complex to answer", while others gave rather vague or general replies. Some replies made general references to existing policy processes, mostly suggesting to give more consideration to the CBD and other international agreements and strengthening the EU Forestry Strategy and Forest Action Plan.

Most of the replies with substantive detail stressed the importance of biodiversity for adaptation and listed one or more of the following measures: minimise habitat fragmentation, enhance connectivity, promote continuous-cover forestry where relevant, control invasive alien species and improve fire management. Several respondents suggested a two-pronged approach through improving protection in some areas, while intensifying production in others. Some stressed the need to give more attention to the economic side of SFM (one respondent suggested that there was no need for change in Sweden.).

In relation to protecting the gene pool, suggestions included the retention of areas for biodiversity conservation, the maintenance of biodiversity at different scales (including isolated and fringe populations), preservation of endemic biological resources (with a view to adaptive capacity) the revision of provenance regions, developing a network of gene reserves and introducing assisted migration of tree species. One respondent mentioned the need to improve the modelling of future changes. (another noted that existing measures were sufficient in Sweden).

4.5. Response to question 5:

Taking into account the various relevant policy levels, is available forest information today sufficient to assess with sufficient accuracy and consistency:

- The health and condition of EU forests?
- Their productive potential?
- Their carbon balance?
- Their protective functions (soils, water, weather regulation, biodiversity)?
- The provision of services to society and their social function?
- Overall viability of forestry?

If it is insufficient, how should forest information be improved?

Are efforts towards harmonised data collection on forests sufficient?

What can the EU do to further develop and / or enhance forest information systems?

Governments and public bodies

There is a widespread view that forest information is only partially sufficient or not sufficient at all to address the above mentioned areas. Only a few of the respondents say that the available information is sufficient. Almost all consider the need for a better harmonisation at EU level and recognise the room for improvement in one or various fields.

EU actions proposed to develop and enhance forest information:

- to strengthen the national information systems and improve the use of existing information;
- to support the development of a EU level information system based on NFIs, including application of criteria and indicators of the FE process and an early warning system for pests;
- a Directive on forest information with common criteria, data harmonisation and coordination and filling the existing knowledge gaps;
- an EU forest observatory;
- long term financing of forest monitoring;
- the continuation of the research projects such as COST actions;
- the continuation of the FAO and the FE reporting work.

The replies received from the Parliaments and other elected bodies who covered the information question agree that more information is needed i.e. on climate related aspects and on carbon stocks, without, however, defining in which concrete manner should it be addressed.

⁷ In this context, "harmonized" has to be understood in the sense of making the information systems output comparable and compatible, and not rendering uniform field procedures.

Business and industry

Less than a third of the stakeholders in this group indicate that there is enough information about forests in the existing MS inventory systems and UN-based statistical reviews. However, another third gives no answer to this question, while the remaining respondents point out a number of forest-related issues about which they believe that there is currently not enough information available. However, only few of the respondents in this group gave fully detailed answers to the 6 sub-questions about what kind of information may be lacking.

The following topics that concern availability of forest information and its improvement are mentioned: finding the right balance between forest functions, data on economic aspects of forestry, co-ordination between different information systems, harmonization of forest information systems and biomass availability for energy generation. A few reactions propose that use of the MCPFE criteria and indicators for reporting on the implementation of SFM should be generalized and even be made mandatory. A few other inputs state that, at transnational level, the UN-ECE and FAO statistical forest sector reviews are adequate.

Concerning the possibility for and the nature of EU action in the field of forest information systems a large number of elaborate replies have been made by the business and industry operators. Most respondents have replied to this question and their reactions can be divided into three categories:

- A few of these inputs represent the view that there is no need to go beyond current UN level forest statistics.
- Several contributions call for a return to the ICP monitoring activities (under the UN-ECE CLRTRP) that have been supported for 20 years by the EU budget until the expiration of the Forest Focus regulation at the end of 2006.
- The large majority of the respondents clearly advocate an expanded EU role in co-ordination and harmonisation of both forest information systems and forest condition monitoring. Among the variety of practical suggestions that have been proposed, the following seem to be worth noting: work on determining the carbon balance of forests, information about new tree species that can be used, adding socio-economic information to existing forest information systems, setting up an EU forest data system based on MS forest inventories, harmonize NFIs by implementation of the COST E43⁸ research project, create and EU forest data centre, create a single EU forest information agency, etc...

Forest owners and private citizens

This question has not been answered by several respondents. Among those who replied, very few believe that existing information is sufficient and the great majority considers that forest information is missing at least in some of the mentioned areas. The areas that are considered as having a higher degree of inaccuracy or inconsistency have been carbon balance, protective functions as well as the provision of services to the society.

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⁸ http://www.metla.fi/eu/cost/e43/

There is concern among the respondents about the need for a better harmonisation and homogenisation of forest information. On what the EU can do to improve data quality and forest information different proposals have been made:

- one respondent suggested to continue with the former monitoring approach "Forest Focus";
- many support the idea of having a forest information system covering information related to all forest functions; some called this an EU forest monitoring system, others a data collection system;
- the question of who should take the lead on forest information was raised by few respondents; two identical replies favour of DG Agriculture and others suggested setting a new forest department in the Commission;
- some respondents believe on the need for conducting more research to clarify which are the exact needs for forest information;
- a few responses underlined the importance of a proper dissemination of results and of having a financing mechanism.

NGOs

Only one of the contributors believes that existing information on forests is sufficient and a second one believes that forest inventories provide sufficient information despite recognising that data harmonisation could be improved.

The other contributions agree that forest information does not cover the mentioned areas, neither partially nor completely. An appropriate approach to forest monitoring is seen as one that is capable to comply with the reporting commitments of the EU and the MS as parties of different multilateral environmental agreements such as the UN FCCC or the CBD.

Several respondents believe that there is a need for having EU legislation on forest information and propose the establishment of an EU Framework Directive based on the existing NFIs. Others do not explicitly mention the type of instrument but underline the need of having comprehensive, comparable and reliable information about EU forests.

Other suggestions have been to go for a forest convention or to establish a permanent forest observatory.

Research and academia

Most respondents answered this question, and only one suggested that available information is generally sufficient, advising against any additional data collection at the EU level. In addition, a number of respondents considered data availability sufficient in certain areas, mostly for the production potential (either because there is sufficient data, or because it was not needed at the EU level), forest carbon (but not for soil carbon) and forest health condition (assuming the continuation of the ICP monitoring, see below). One respondent pointed out that there was sufficient information available for certain parts of the EU (such as northern Europe).

The most frequently identified data gaps included biodiversity (some mentioning Natura 2000), ecosystem services, protective functions, productive potential, soils and soil carbon in general, and forest carbon where there are no national forest inventories available. Several replies pointed out the need for more data on forest productive potential.

The replies differed in relation to data on forest health condition. While some respondents considered available data sufficient, they seemed to assume that the ICP monitoring network would be maintained. Others did not see this guaranteed and considered forest health information inadequate unless immediate action is taken. Several respondents pointed out the need to improve the existing forest monitoring network. Some respondents stressed the need to maintain and/or reinforce EFFIS.

The majority of replies emphasized that forest related data must be better harmonised. Some suggested that rather than collecting more information, the emphasis should be put on harmonising the forest information already available at the MS level. One respondent bemoaned the "uncoordinated ad haphazard nature of forest information needs and systems", and some called for comprehensive/comparable/consistent/up-to-date information.

Respondents identified a wide range of possible approaches to and requirements for the collection of forest information. Some called for an "open and accessible data base", an "effective and reliable European-wide forest monitoring system" or a "regulation for a common forest information system". Most did not elaborate on the scope of the data that might be included, but others suggested identifying specific data needs such as those needed for early warning (of pests ad diseases) or mentioned the need to set a minimum standard for completeness.

4. 6. Response to question 6

Additional remarks/ any other issues

Several issues not addressed in the 5 explicit questions have been raised in contributions reacting to this open question.

Governments and public bodies

Some of the additional concerns from the governments and public bodies and of the Parliaments and institutions are:

- that forestry must be considered in a coordinated strategic manner; some express their support for doing so through the FE process; others feel that there is a need for including forest protection into the definition of SFM;
- there is concern on a climate change action at all levels, the better understanding of biodiversity and climate change as well as on the need for some basic rules at EU level or even for a strong and integrated forest policy;
- the recreational function is a missing point in the Green Paper;
- there is a need for attention in forestry for Green Infrastructures, fragmentation and resilience as well as to the expansion of protected areas;
- there is a need for links between biofuels and forest policies; this was raised by a national Parliament which underlined the need for common sustainability criteria for biomass.;
- the forest information issue should be addressed at pan-European level but not at EU level;
- need to cover Invasive Species and to secure biodiversity conservation.

Business and industry

Most respondents who have taken the occasion to address additional issues have in fact elaborated on points that they had already mentioned in their reaction to questions 1-5.

Most frequently mentioned issues under this section:

- The need for introducing a "wood hierarchy" or "cascading wood use", to make a maximum contribution to the reduction of GHG emissions and to employment, by avoiding that wood which can serve as raw material for other uses is being burned for energy generation.
- The general need to promote wood as being more beneficial from a climate protection point of view, compared to other, more energy intensive materials.
- An argument maintaining that "high growth short rotation forestry is best for climate" was made several times (but without any mentioning of impacts on soil carbon).

- Remarks indicating that the text of the green paper is too environmentally focussed and could have given more attention to economic and social forest functions.

One squarely proposed that the Commission should appoint a Commissioner for forests and timber.

Forest owners and private citizens

Very different additional remarks have been collected from this group. From the criticism of the high administrative burden that exists on forestry until the need to increase the environmental conscience about forests and the stronger role that the EU should have to ensure consistency and continuity of policies.

Some ideas raised under this open question have been, i.a.:

- the need to consider the forest protection debate within the debate on the future of the CAP;
- complaints about the environmental situation of forests in certain MS;
- the need for a more cultural analysis of forest issues;
- the need for more transversal reflections on all policies with impacts on forests;
- the direct relation between forestry and the value of ecosystem services;
- proposals for a re-examination of existing forest policies;
- concerns about the need for mandatory regulations, more transparency and a proposal of a European statute for the forestry personnel;
- promotion of forests for energy production;
- the need for a global, sustainable, ecological development policy and framework.

NGOs

Reflections of diverse nature have been suggested by the NGO respondents. From the need of securing consistency and continuity in the forest policies, the need for having an EU forest strategy integrating climate change issues, a Framework Directive, a legally EU binding instrument to the idea of merging RD Regulation and forest policies.

Other ideas raised by individual contributions have been:

- the need to analyse the impacts of recent management, consumption, urban forests and non-timber forest products;
- the problem of the "vagueness" of the concept of SFM and its contradictory nature;

- the fact that there are more forest data at international level, meaning FAO and UNECE, than at EU level;
- that the Green Paper is just one part of the forestry debate, among many others;
- that action to be taken should be at the level of large forest complexes;
- that more attention should be paid to the Mediterranean area in the EU forest policy;
- the importance of adequate training, skills and knowledge.

Research and academia

Very few respondents in this group made remarks under this question, although many of them included, under other questions, suggestions and remarks that go beyond the scope of those.

Suggestions under this heading:

- one respondent noted a conflict between Natura 2000 and forestry;
- two replies stressed the need to keep a holistic vision: climate change is a major challenge, but it is not the only one we face, and the Green Paper should be viewed in the context of wider deliberations;
- one reply included a detailed proposal for a framework directive on forest fires;
- one respondent emphasized that it was pointless to address adaptation without effectively dealing with climate change itself.

5. OPINIONS ON PARTICULAR POINTS OF INTEREST

A number of respondents took the opportunity to address issues which were not directly mentioned in the questions posed. These views are summarized below.

References to the Forestry Strategy for the EU and/or the EU Forest Action Plan¹⁰

Part of the group of the government and public bodies, including some of the Parliaments and other national institutions, have raised the issue of reviewing and updating the FS and eventually the FAP, as both documents are the framework that covers forests and forestry processes at EU level, respecting the subsidiarity principle.

Some NGOs commented on the FS and the FAP. From this group of respondents, a few believe that the FS is not an effective framework for action because of its non-binding nature. Only one of them considers both documents as the appropriate frame to conduct the forest protection debate.

A few respondents from the group of the forest owners and private citizens raisedconcerns about the need to place the forest protection debate within the framework of the EU FS and the FAP.

In general, about one in five reactions have made mention of the FS and the FAP.

Discussion on a Legally Binding Agreement on forests under the Forest Europe process

Part of the contributions make reference of previous MCPFE commitments and instruments, Forest Europe and the discussion on a Legally Binding Agreement on forests in Europe. It should be noted that those respondents who mention this tend to give paramount importance to it, sometimes going as far as stating that the EU should not address anything in the forest sector and simply apply what the MCPFE-Forest Europe process recommends or decides. Most reactions in this sense come from public bodies in countries with a well established forest sector and from large industrial entities of the forest sector or their federations.

Some NGOs consider that the SFM concept, commonly agreed and supported by the Forest Europe process and accepted across the sector, has a lack of precision and has contradictory objectives. Most other stakeholders consider that the protection of forests should be integrated in the SFC concept.

Forest Fires

Quite many respondents, mainly from S. Europe are calling for more EU-level backing for measures against forest fires, corresponding financial resources and legislation.

10 http://ec.europa.eu/agriculture/fore/action_plan/index_en.htm

⁹ http://ec.europa.eu/agriculture/fore/forestry_strategy_en.htm

EU support for the forest sector

Most of the reactions that address this point argue in favour of continuation of the support for forest related measures under the EU Rural Development instrument. Many reactions also propose that the EU support forest data collection and information processing.

About the support issue, a combination of insistence on continued and even expanded financial support for the forest sector with opposition to any form for regulation or legislation occurs in several of the contributions.

Wood hierarchy

Promotion of compliance with a "wood hierarchy" or "cascading use of wood" in which no wood can be used for energy generation that has not been previously used for material is an issue that is mentioned by the majority of the business and industry respondents as well as some of the forest owners and also by a number of public bodies. The justification given for such a measure is a higher reduction of greenhouse gas emissions and more employment in manufacturing than in the actual case where wood can go straight from the forests into the biomass-fired boilers.

Bio-energy

A number of respondents from the public sector and the business and industry operators from countries where the forest sector has high economic importance argue for the generalisation of a high growth, short rotation and maximum harvest forestry scenario as the way to allow the EU to meet the 2020 renewable energy objectives. Other respondents raised concern about excessive use of wood for energy and emphasized "cascading wood use" or forest protection.

Timber market

A few reactions call for market-organization of measures to create incentives for wood use, with a few defending common market preference for EU wood.

Biodiversity

Most of the NGO inputs and also some of the reactions from private citizens and forest owners call for more attention for forest biodiversity as an essential mechanism to ensure resilience and adaptive capacity of forest ecosystems under a changing climate. Many of these replies also argue for a "close to nature" type of forest management.

Forest Carbon

Many respondents across all groups mentioned the carbon sequestration capacity the forests as a potentially important contribution to mitigation of climate change by removing CO₂ from the atmosphere and locking it up in harvested wood products and standing forest. This reasoning was also advanced as the basis for the high production forest sector scenarios that some respondents present as an example to be followed by the rest of Europe. In this context, it is noted that almost none of the reactions to this consultation have devoted attention to the possible decisive importance of forest soil carbon in the overall greenhouse balance of production process in forestry.

6. CONVERGING VS. DIVERGING OPINIONS

6.1. Points on which there is a convergence of opinions

- The clear winner of the positive remarks in the consultation is the issue of addressing forest information at EU level. Four out of five replies take this up They argue for more harmonised and more readily available information about EU forests. This is then linked to a variety of policies and issues, such as forest production estimates, biodiversity in forests, carbon accounting in the LULUCF sector, valuation of non timber forest services and goods, etc...
- A few reactions indicate that not the EU but other institutions, e.g. UN agencies, should be responsible for co-ordinating and integrating forest information in Europe.
- Second in line among the topics for which measures are generally sought is the conservation of forest genetic resources. It is perceived as a transnational issue that cannot be dealt with at MS level only and where work remains to be done in order to ensure resilience and adaptability of forest ecosystems in the face of changing climatic conditions.
- Next, there appears to be a widespread consciousness across all stakeholder groups that more research efforts are needed to establish adequate knowledge about the nature, the extent and the effects of climatic change on forests and the forest sector. In that sense, the need for continuation of EU support for research and calls for more funding for scientific work are frequently mentioned.
- There is a general consensus that forests in the Mediterranean regions will be most affected by climate change, with mountain forests and Central European forests coming next. The evolution to dryer growing conditions is the most mentioned effect of climate change.

6.2. Points on which opinions are opposed or diverging

There are not many reactions that address the issue of a comprehensive EU forest policy and those who do favour it are about as many those who reject it. Some of the reactions in favour also call for stronger institutional anchorage of forests and forestry in the Commission. Those who oppose it mainly point to Forest Europe and the UN as the most appropriate place to discuss forest policy.

A similar division can be found between stakeholders who argue for intensification of forestry vs. those who call for a close to nature or more protective approach. Business and industry generally want intensification ("protection by use"), NGOs defend the opposite ("conservation" and prevention of overexploitation), while forest owners and citizens are about split in the middle about this.

There are many opinions on the ways and means of assuring conservation of genetic resources in forests, some of them arguing from a purely local perspective, others taking the issue to the EU level. There is also an obvious antagonism between the defenders of natural regeneration of forests as the best way to make use of the gene pool and those who propose solutions in the field of genetic engineering, the latter being the less numerous.

A variety of levels for action in the field of forests and climate change are being proposed, from local to regional, national, EU-level, pan-European and global.

Some stakeholders proposed to impose in the future a set of indicators of achievements or targets for the main elements of SFM. Environmental NGOs indicated that minimum EU standards for forest management as well as conservation thresholds could also be set, which would help in validating proposed management activities and provide the means for assessing multiple outcomes.

The need to map, study and monitor forest biodiversity within, as well as outside of protected areas, was particularly underlined by environmental NGOs.

A considerable share of the responses from the research community was not scientific or research-oriented, and seemed to reflect the general views of the respondents, rather than their scientific assessment of the issues at hand.

7. CONCLUSIONS

The main conclusion from this consultation is that there is a widely perceived need to work on an EU level forest information system that is based on existing MS data collection and processing systems.

The absence of any systematic and permanent EU level work on forest information and monitoring after the expiration of the "Forest Focus" Regulation is clearly seen as a step back, which closed possibilities for future developments. The opinion was expressed that expanded forest monitoring should be coupled to the existing National Forest Inventory systems (NFI) of the MS and that including biological diversity and forest carbon information would be a significant step towards a holistic approach to forest use and protection. However, it was also stressed that future forest information should give due attention to socio-economic aspects of the forest sector as well.

Standardisation of methods and harmonisation of terminology were mentioned as tasks to be addressed in future work in this field. Some stakeholders pointed out that this should be facilitated with more resources and would have to be backed by legislation enabling the development and harmonisation of forest information systems. The need for better communication of the results and a non-technical interpretation of their meaning for a wider audience was expressed.

The necessity to assess and monitor the impacts of climate change on forests and to develop measures to adapt to these impacts was also stressed. It was recommended that in the future the EU should consider in a balanced manner both mitigation measures (reduction of GHG emissions) and adaptation measures (adaptation of forests to changed climate). Thereby, mitigation measures should be socially and environmentally acceptable, while adaptation strategies would need to be given a higher profile, both from a biodiversity and a socioeconomic perspective.

Some stakeholders pointed to the need for the recognition of wood-based products as carbon pools and the promotion of the use of wood in construction and household consumption. Likewise, compensation for the provision of societal needs and the value of environmental and social goods and services was proposed. However, as for now, the lack of information on the economic value of non-wood forest goods and services was noted together with the recognition that in certain areas, non-wood benefits (provision of environmental and social functions) are becoming increasingly more important than wood supply. In relation to biodiversity, many respondents expect future work on forest information to accommodate for inclusion of parameters on conservation status of key fauna and flora species as well as forest habitats

A response to the perceived need for conservation of genetic resources of forests may also have to be integrated in future work on forest information as a main component.

Given the high importance that most stakeholder groups attach to continued research on forests and climate change, the FP8 Research Agenda would have to be accommodated accordingly.

More particular attention for condition of Mediterranean forests and the problem of forest fires have been called to the order of the day in future work on forest information.