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European forest governance post-2020



Bernhard Wolfslehner, Helga Pülzl, Daniela Kleinschmit, Filip Aggestam,
Georg Winkel, Jeroen Candel, Katarina Eckerberg, Peter Feindt, Constance McDermott,
Laura Secco, Metodi Sotirov, Magdalena Lackner, Jeanne-Lazya Roux



AUTHORS

Bernhard Wolfslehner, University of Natural Resources and Life Sciences, Vienna, and EFI Forest Policy Research Network, Austria

Helga Pülzl, University of Natural Resources and Life Sciences, Vienna, and EFI Forest Policy Research Network, Austria

Daniela Kleinschmit, University of Freiburg, Germany

Filip Aggestam, senior researcher, Sweden

Georg Winkel, European Forest Institute

Jeroen Candel, Wageningen University and Research, the Netherlands

Katarina Eckerberg, Umeå University, Sweden

Peter Feindt, Humboldt University of Berlin, Germany

Constance McDermott, University of Oxford, UK

Laura Secco, University of Padova, Italy

Metodi Sotirov, University of Freiburg, Germany

Magdalena Lackner, International Union of Forest Research Organisations (IUFRO), Austria

Jeanne-Lazya Roux, European Forest Institute

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EXECUTIVE SUMMARY

A new era of forest policymaking

Europe and the EU will face a significant new era of forest policymaking after 2020. A strategic and coordinated policy direction will be required, not least to support the implementation of globally agreed policy targets such as the Sustainable Development Goals, the Paris Climate Agreement and Convention on Biological Diversity. In the global policy arena, trade developments related e.g. to China, Russia and North America will also have important implications for the European forest sector. On a pan-European scale, a decision on whether to start negotiations on a legally binding agreement on forests in Europe under the umbrella of the United Nations Economic Commission for Europe (UNECE) will have to be taken in 2020.

Forest products and services are increasingly an inherent and integrated element of many other sectors, ranging from energy to food production to conservation and public health. This wide range of sectors and multiple interests, at different levels, leads to a complex multi-sectoral governance system. For example, within the EU, negotiations are currently ongoing on post-2020 EU policies on agriculture and rural development, biodiversity, climate, industry, food security, circular economy and new legislation on sustainable finance. All of them will have an important influence on forest-related decision-making processes. In addition, the European Green Deal launched in December 2019, will affect forest-related policies in the coming decade.

Forests are the biggest land-based natural resource in Europe and there are increasing demands to use this resource for many different purposes. Climate change and biodiversity have become major drivers of all environmental questions, with high expectations for European forests to contribute. The European bioeconomy also has many opportunities and demands for forests, which can play a major role in phasing-out fossil raw materials and products,

generating income and employment, and as a provider of ecosystem services to an increasingly urbanized and ageing society. Clearly, this generates potential synergies and trade-offs between the different needs for forests, which all have to be dealt with in a context of a complex inter-sectoral policy landscape that also operates at regional, national and supra-national levels.

This report reviews significant developments in the forest governance framework including EU and international developments, and discusses how coordination in other policy areas than forests leads to policy integration. Based on evidence from a literature review, stakeholder interviews and workshop results, it outlines several potential pathways for future forest policymaking in Europe.

Policy implications

- **To increase EU forest policy coordination, the integration between EU and Member States (vertical integration) and of separate EU policy objectives (horizontal integration) has to be defined and developed.** Future interaction between public (government) and private initiatives forms a third mode. In practice, integration may take hybrid forms across the three levels, including forest agenda-setting, cooperation and coordination across different levels, sectoral and cross-sectoral coalitions as well as the provision of proper financial and human resourcing for targeted forest policy integration.
- **The forest sector should increase cross-sectoral policy initiatives and become a strategic player in addressing the role of forests and forest resources for the future EU society and economy.** It has to become proactive rather than reactive in addressing major EU policy goals, which often arise from global challenges and from outside the forest sector. This would allow a more rapid and coordinated response to emerging issues, and help



articulate national forest-related policy goals in the EU framework more clearly. It would require a common political vision, or at least an agreement on the main political priorities for forests and forest resources.

- **The major challenges for EU forest policymaking are linked to several policy domains, and will require new modes of cooperative forest governance and processes.** This may include new forms of dialogue, information exchange, and cross-sectoral initiatives including the discussion of synergies and trade-offs on an EU level. Existing forms of forest governance have shown limitations in moving towards better coordination and integration. To balance the major socio-economic and environmental demands on forests, while maintaining the competitiveness of the sector in an economy moving towards low carbon and renewable resources, it is also important that forest-related interests are integrated into other EU policy domains. This requires consistent and coordinated policy goals and targets on forests, and active handling of synergies and trade-offs.
- **Experiences from other policy domains show that policy integration is typically incremental and path-dependent.** Radical changes are often not successful and may in fact counteract ambitious goals for deeper integration. Attempts to strengthen cross-sectoral integration in these policy domains often remain largely symbolic, hence altering existing policy frameworks or even introducing new instruments and practices would require extraordinary political and/or external pressures.
- **The forest sector and its product markets differ from the heavily subsidised EU agricultural markets, and might require fewer resources for fostering policy integration.** However, the integration challenge is to support and boost non-market forest ecosystem services, such as biodiversity, climate mitigation, recreation services, etc. and to ensure ecosystem services provision without impeding the functioning of existing forest products markets. It is also important that new policies do not lead to the offsetting of EU climate and environmental goals in other regions, with sustainability leakages like carbon leakages, illegal logging and biodiversity loss.
- **A major divide as to whether forests should serve mainly environmental or economic forestry objectives was found in previous studies and confirmed by a new interview series** with representatives from Member States, stakeholders and EU-level administrators. While the results show largely well-known interest coalitions with regard to EU forest policy (e.g. conservation vs. commodity interests, forest-rich producer vs. forest-poor consumer states), new configurations also occur depending on the topic.
- **Defining joint topics on forests might be key to fostering forest policy integration.** Currently (in parallel with the Green Deal proposal), bioeconomy, climate change and biodiversity protection could serve as such. It will be important to demonstrate the realistic potential contribution of forests, and to further develop the concept of sustainable forest management as the major coherent and comprehensive element that forests and the forest-based sector can bring into different policy processes such as the Green Deal.
- **The European Green Deal puts the forest-based sector in a key position in climate change mitigation and biodiversity protection, and it is therefore important to trigger stronger forest policy integration and strengthen its implementation.** However, more resources for forest expertise in the European Commission services and national administrations will be needed to ensure that the integration of distinct forest demands can be properly addressed. The Green Deal proposal puts a strong focus on biodiversity conservation and the carbon storage function of forests, but hardly mentions (forest) bioeconomy at all. This has led to significant concerns regarding the need to also strengthen the transition to a **circular bioeconomy**, to advance EU policy objectives and sustainability in all dimensions. It is important to clarify how different forest-related policy objectives can be met, and to develop governance mechanisms that take into full account the entire set of ecosystem services that forests provide, including the global dimension.

- **The development of future forest policy in Europe post-2020 requires consistent policymaking on and across all levels of governance.** The way forests are dealt with on different levels (international, EU, national) requires better inter- and intra-governmental coordination (e.g. between forestry and nature authorities). Apart from global and EU processes, the future of the Forest Europe process and the developments around a Legally Binding Agreement are expected to influence how forestry topics will be shaped in Europe in the future. It is

important to define what forest policy integration means along the different possible future pathways, and which elements of integration are potential priorities. The debate on the future of EU forests and what services are required from them has often been strongly ideological in the past. Using evidence-based information and seeking practical means to **maximise synergies and minimise trade-offs** between the different needs for forests would give a better basis for future forest policy development.



1. Introduction: changes in the post-2020 forest policy framework

Forests are the largest land-based natural resource in Europe, covering more than 40% of the EU land area. There are increasing demands to use this resource for many different purposes. For example, with climate change becoming a major driver of all environmental questions, and given the potential of EU forests to help in climate change mitigation, they are the subject of many climate-change related political targets. The view that forests have to be preserved as carbon and biodiversity reservoirs has also grown increasingly dominant. In this context, the European Commission's 'European Green Deal' proposal, launched in December 2019, is likely to affect how forests are dealt with in the coming decade. Afforestation and restoration of forests are central to the Green Deal's view of forests, which opens up many aspects of what has so far been understood by sustainable forest management (SFM).

European forests are also subject to many demands – and opportunities – from the European bioeconomy. They play a major role in generating income, as part of the value chain for bio-products and bioenergy, and as a provider of ecosystem services to an increasingly urbanised and ageing society. Clearly, the need to enhance biodiversity and a wide variety of ecosystem services generates potential synergies and trade-offs between the different needs for forests. Simultaneously, the horizontal and vertical integration of forest-related policies and their objectives depends on diverse regional, national, and supra-national competencies. Non-harmonised policies are also likely to neglect the trade-offs that arise from divergent goal-setting activities, creating conflicts and inefficiencies.

Europe and the European Union (EU) will face a significant new era of forest policymaking after 2020. A strategic and coordinated policy direction will be required, not least to support the implementation of globally agreed policy targets such as the Sustainable Development Goals (SDGs), the Paris climate agreement and the Convention on Biological Diversity. In the global policy arena, trade developments related to e.g. China, Russia and North America will also have important implications for the European forest sector. On the pan-European scale, a decision on whether to start negotiations

on a legally binding agreement (LBA) on forests in Europe, under the umbrella of the United Nations (UN), will have to be taken in 2020.

In addition, after the autumn 2020 Ministerial Conference on the Protection of Forests in Europe, a new orientation of the Forest Europe process will be needed that leads into a post-2020 European forest policy era. Within the European Union, negotiations are ongoing on post-2020 EU policies on agriculture and rural development, biodiversity, climate, industry, food security, circular economy and upcoming new legislation on sustainable finance. All of them will have an influence on forest-related decision-making processes.

How well the EU policy framework fulfils the needs of the Member States in relation to forests and the forest sector is not a new question. On the one hand, the EU forest governance framework has been effective to a certain extent in setting common goals, helping information exchange, promoting the sustainable forest management (SFM) concept, forest certification and other advances. On the other hand, the framework is weakened by many open issues, including a perceived lack of coordination and coherence of forest-related policies and a limited monitoring and evaluation of policy effectiveness keep such a framework weak. In addition, perceptions of the merits, caveats and the future role of forests in Europe vary among Member State representatives, stakeholders and EU level administrators, and will continue to be intensively discussed, given the changes that can be expected.

As a consequence, there are different policy perspectives and objectives, different expectations and perceptions, and different responsibilities for different segments of the forest value chain. This is why the issue of policy integration lies at the core of this study. While integration is often discussed and requested, its absence is still a major obstacle to a targeted and coherent forest policy framework in Europe.

In this report, we offer an alternative point of view on the challenges for forest policymaking in Europe post-2020. While evaluating past and more recent developments that affect forests and forestry in Europe, we also look ahead. New trends and their

potential impacts on forests need scrutiny, whether from economic, social, ecological or governance points of view. Climate change-attributed forest disturbances, such as forest fires, bark beetle raids and storm damage, as well as degradation processes, will increase in the future. They will also influence the public perception of forests and increasingly put pressure on politicians to act.

In summary, this report

- Assesses current emerging trends potentially affecting future forest governance, to feed into the analysis of prospective policy pathways.
- Reviews significant developments in the EU forest governance framework, including international developments.
- Discusses how coordination in policy areas other than forests leads to policy integration.
- Assesses the interests and expectations of forest-relevant stakeholders, EU administrators and Member State representatives with regards to their perceptions on the current and future forest policy framework.
- Outlines pathways for future European forest policy.



2. Megatrends and drivers specific to the forest sector

2.1. Setting the scene: five important trends for forests and the forest sector

In this chapter, we aim to identify emerging major trends and their consequences for forests and the forest sector – i.e. risks and uncertainties that have resulted, or might result, in demands for forest policy responses in the next three to five decades. We establish some trends in outlook, using a limited review of trend literature published between 2016 and 2018, and taking into account the differing time dimensions in these trends (e.g. Pelli et al. 2018, Nilsson and Ingemarson 2017, Hagemann et al. 2016, Korhonen 2016) in addition to our literature synthesis.

2.2 Societal and demographic trends

In Europe, almost 75% of the population live in cities and settlements. Urbanisation is changing lifestyles and practices and, therefore, the demands expressed by the urban majority, which is often the most politically influential, on the use of forests and trees, and their products and services. The main drivers are demands for a growing service-oriented economy (opportunities for education, employment, credit, assurance and healthcare) and, on the other side, emerging crises, extreme events and the consequent forced migration. The world's population is also growing older. This ageing society, together with decreasing birth rates in some countries and a declining proportion of working-age people, puts pressure on social security systems (healthcare, pensions and social protection for older people).

Societal changes also imply value changes for forests. A majority of EU citizens consider nature protection to be important (European Commission 2017a). Equally important are variations and changes in the attitudes of forest owners, alongside structural changes in forest ownership (Weiss et al. 2019).

For forests and the forest-based sector this means:

- A shift in population from rural to urban areas, which may lead to a change in perception of nature and, more specifically, forests (Farcy et al. 2018).

- A growing focus on the importance and value of non-material ecosystem services such as recreation (Masiero et al. 2019, Rojas-Briales et al. 2018).
- New social demands for forests and trees in urban contexts (Konijnendijk van der Bosch 2018) such as human wellbeing and nature-based therapies (Herpinier-Saunier et al. 2018).
- That internal European migration may lead to rural depopulation, with structural consequences for the forest sector (e.g. spreading of wildlife and related diseases, labour availability in the sector).

2.3. Economic trends

2.3.1. Consumption and production

While the EU has made some progress in decoupling production and resource use through increased production efficiencies, overall EU energy consumption and waste generation have continued to rise (Eurostat 2019). Reaching the European Commission Green Deal proposal (European Commission 2019) for carbon neutrality by 2050 will pose a major challenge and have severe impacts on EU consumption and production. At the same time, the region continues its long-term shifts to digital and service economies.

In the past two decades (since 2000), the EU's import dependency trend for different materials has increased markedly only for fossil energy materials; for others (such as biomass), it has stayed fairly constant (Eurostat 2019). However, if in the future the EU is to face an increasing import demand for e.g. bioenergy and bio-materials, attention must be paid to issues such as land use impacts, environmental and legality certification, pledges for 'zero deforestation' imports and bioenergy carbon capture and storage (BECCS) (Oberle et al. 2019). On the other hand, the Green Deal also addresses the feedback impacts of stricter EU manufacturing carbon policies within the region and the consequent possibility of increasing 'carbon leakages' outside the EU: it suggests possible trade policy measures that would help to minimise the effects. Regarding forest products, the demand for traditional products such as printing paper has been declining or stagnating while there is an increasing trend in product diversification – moving towards portfolios of products

and services (Jonsson et al. 2017, Hurmekoski et al. 2018). Meanwhile, the closure of traditional wood processing mills is having a negative impact on the economies of some rural communities (Neelam et al. 2017). Energy-based industries and bio-based products can contribute to revitalising affected communities.

In forest product markets, trends show that wood for construction purposes (supported by green public procurement), green consumption (wood used to substitute for non-renewable materials, increased demand for certified sustainable biomasses) and high-value products from wood (e.g. bio-refinery, bio-plastics etc.) will gain increasing importance. The supply of raw material will depend on the mobilisation of European wood resources and the freedom or restrictions of global trade, while satisfying sustainability criteria in supply and production.

For forests and the forest-based sector this means:

- Increasing opportunities when fossil-based economic activities need to be replaced with more sustainable alternatives.
- A growing demand for European forests and their management to provide a range of ecosystem services – from biodiversity protection to recreation, health and wellbeing to bio-products, fibre, bio-fuel production and carbon capture and storage. This may generate conflicts over land use and the risk of displacing production impacts to other world regions but also creates new market and non-market opportunities.
- Resource efficiency, circularity, innovations and high-value products will be key in enabling the sector to compete in a bioeconomy. The diversification of the sector requires the broadening of goods and services portfolios, together with strategies for intensification or extensification of timber production in different countries.

2.3.2. International trade

In the wake of market globalisation, there will be a shift from the trade and manufacturing of goods to the assembly of parts from many different regions and countries, and a shift in the trade in tasks and services towards a process of service sector development. The 2008 economic crisis and the increase in protectionist measures accelerated the growth of intraregional trade, particularly in Asia. The multi-lateral trade regime is as much under pressure as multilateral environmental agreements, leading to

increasing fragmentation of the trade system and allied systems of sustainability-related standards and traceability. Mechanisms to trace international trade flows are increasingly used by companies, and requested by governments, as instruments to reduce the risks of illegal activities (and associated costs), enhance the efficiency and competitiveness of companies and demonstrate sustainability.

In the context of forests and the forest-based sector, this means:

- China has become one of the biggest economies with a great demand for wood and a huge capacity to purchase, process and trade wood products. Also, as a consequence of growing protectionism, particularly in the US, the trade flows for wood products may change.
- Regarding exports, in recent years Europe has rapidly become a major supplier of softwood logs to China (a flow that is also generated by forest disturbances), while Russia and North America have lost market share. It has to be seen if this is a lasting trend or cyclical phenomenon.
- The EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan aims to ensure the legality of wood entering EU markets. This might encourage the diversion of timber products from traditional large importers to destinations with a less stringent regulatory framework (Masiero et al. 2019).
- There is some evidence of a positive correlation between international trade and markets for wood products certified as sustainable (Lovrić et al. 2018).
- The increasing use of traceability systems and digitalisation to trace wood along the whole value chain will contribute to the development of the forest sector as a service sector.
- Non-wood forest products and services can be particularly significant for a diversified forest sector and for rural areas in many parts of Europe (Wolfslehner et al. 2019b).

2.3.3. Circular bioeconomy

The growing awareness of the need to replace fossil-based economic activities, and the finite nature of fossil raw materials, has led to the concept of the bioeconomy, which is expected to further broaden its scope internationally (D'Amato et al. 2020). However, the bioeconomy cannot be assumed to be sustainable on its own: it needs to be imposed



and monitored (Hetemäki et al. 2017, Ramcilovic-Suominen and Pülzl 2018, Wolfslehner et al. 2016). Resulting environmental regulations might impose new constraints and costs for the forest-based sector. A response to this is a circular bioeconomy with a more sustainable and efficient use of natural resources (Hetemäki et al. 2017).

For forests and the forest-based sector this means:

- A need for new innovations and products that are more resource-efficient and sustainable, and help to replace fossil-based production.
- That a further developing bioeconomy in the future could lead to an increased demand for renewable resources. Apart from more demand for roundwood, the improved resource efficiency will allow the increasing use of wood residues, waste streams and process sidestreams.
- Sustainably produced wood-based bio-resources have gained increasing attention in recent years. Standards and labelling are currently under discussion. The role of the forest sector in a circular bioeconomy has been underestimated so far and shows the potential to contribute significantly with new, smart products and services (Hetemäki et al. 2017).

2.4. Technological developments

2.4.1. Digitalisation

Digitalisation continues to evolve with high speed because of a rapid growth in the rate of IT computing power, storage capacity, connectedness, software applications and artificial intelligence (O'Reilly et al. 2018). The inclusion of digitalisation and security systems (e.g. systems for timber traceability, such as blockchain) is expected to improve customer value but creates issues around the control and use of data. Digital platforms with data-driven business models, such as Amazon, Google and Facebook, have been highly successful over the last decade but a concentration of corporate power, originating from first-mover advantages and the control of critical infrastructures and digital platforms, has become a major concern (Mazzuccato 2019).

For the forest-based sector this means:

- The development of new concepts and digital technologies will shape forestry's practice and research, taking advantage of technological overspill from other industrial sectors. Both traditional land-use sectors, such as forestry, and innovative services will have to use digitalisation and develop

platforms for information about forest management and economy, wood supply and ecological factors.

- Frontier technologies – such as blockchain and advanced, remote sensing and monitoring technologies – are likely to be introduced to increase wood traceability, forest management, control property rights and food security, and to address bottlenecks in supply chains.
- Innovation and improvements in communication technologies, and social and digital media, will improve access to information even in remote rural areas, helping in business creation, networking and marketing.

2.4.2. Innovation and technology disruptions

The bioeconomy aim to replace fossil-based products with new products based on biological resources and waste is an example of a driver for technological innovation, as well as digitalisation and transition to operating as a service sector. So far, the emphasis has been on technological innovations, with attention almost completely focused on bio-refineries and construction (Toppinen et al. 2020). However, material science is also developing new, high-tech, high-performance materials (e.g. nanomaterials) which raise concerns over novel types of risk and require a suitable governance framework (Stone et al. 2018). It can be argued that sustainable development necessitates not just technological innovation but large-scale, interrelated social and technical change (Geels 2013), including social developments for an innovative learning society (Moulaert et al. 2013).

For the forest-based sector this means:

- Innovations along the value chain (such as cascading use of biomasses) could reduce the costs and environmental impacts of the entire production process, increasing the sector's overall sustainability (Mair and Stern 2017).
- Technological and organisational innovation trends are still weak for traditional forest enterprises with traditional business models, particularly small and medium ones (D'Amato et al. 2020). A broadened understanding of bioeconomy might create new opportunities.
- In addition to technological innovations, social innovations are required for the co-creation of benefits involving a wide range of forest actors and institutions (Secco et al. 2018).

2.5. Environmental trends

2.5.1. Climate change

Climate change is at the top of the political agenda. Forest ecosystems and wood products currently sequester about 13% of greenhouse gas (GHG) emissions in the EU (Nabuurs et al. 2018a). The role of forests and the best way of implementing climate-smart forest management is at the centre of the scientific and political debate. Forests' climate mitigation potential includes not only carbon sequestration in forests but also the substitution of fossil-based raw materials and products. It also addresses some major drivers of land-borne carbon loss, including land-use change (as a part of land use, land-use change, and forestry (LULUCF) activities) and deforestation reduction – e.g. processes for reducing emissions from deforestation and forest degradation (REDD). Adapting forests to climate change is gaining importance in climate actions. Bark beetle disturbance, storm damage and forest fires are strong signals that only resilient, adapted forests can fulfil their promising mitigation potential, while vulnerable forests turn into net carbon sources.

For forests and the forest-based sector this means:

- Within forest sciences, there is broad consensus that climate change mitigation has to go hand in hand with adaptation (Lindner et al. 2014). Because of the pace of change, financial instruments for adaptation measures will be important.
- REDD programmes to combat deforestation globally are potentially an important instrument, though many questions remain about the conditions under which they contribute effectively and efficiently to both climate change mitigation and local livelihoods.
- The role of forest management in climate change mitigation is vital in the scientific and political debate, and often complex and driven by distinct interests and ideologies. This refers particularly to methods of reporting carbon sequestration (cf LULUCF reference levels) and accounting of wood products and substitution effects. Climate-smart forestry approaches may contribute effectively to this debate (Nabuurs et al. 2018a).

2.5.2. Biodiversity conservation

Biodiversity loss and the need for effective nature conservation will continue to be a central

environmental and policy driver, post-2020 (IPBES 2019, European Environment Agency 2019). In the pre-Brexit EU (EU28), around 25% of the 28 nations' forests were part of Natura 2000, the world's largest coordinated network of protected areas, and there is an increasing number of other smaller or bigger protected forest areas (Sotirov 2017). The EU's biodiversity conservation and nature protection policy (as found in the EU biodiversity strategy, EU Habitats and Birds Directives – also known as the Nature Directives – and Natura 2000) has not yet met its objectives to achieve a favourable conservation status of forest habitats and species, and to tackle and reverse biodiversity loss. Full achievement of the Nature Directives' goals will depend on improving the implementation of policy and practice in partnership with local authorities and stakeholders in the Member States (European Commission 2016). Equally, some main objectives of global biodiversity conservation policy (e.g. the Convention on Biological Diversity (CBD), Sustainable Development Goals (SDGs), the United Nations Framework Convention on Climate Change (UNFCCC), the Paris agreement, REDD+, FLEGT etc.) are still not achieved (Pokorny et al. 2019).

For forests and the forest-based sector this means:

- Persistent environmental issues and policy developments are likely to maintain and put additional pressure on the forest sector to consider and implement the biodiversity conservation and environmental aspects of forest policy, management planning and practice (Sotirov 2017).
- The sector is likely to be impacted by growing pressure for substantial, additional nature conservation efforts, and global and local sustainability, fuelled by a combination of the 'biodiversity crisis', increasing demand for bio-resources and a 'greening' consumerism.
- These trends are likely to demand more comprehensive integration of biodiversity conservation in the forest policy and practices of forest owners and forest authorities.

2.6. Governance trends

2.6.1. Shift of global power to multiple centres of power

The balance of global political, economic and military power has shifted from the bipolar political system of the Cold War towards a multipolar global



order, with multiple centres of power including the US, China, Russia, India and the EU (Wade 2011). Emerging economies are becoming increasingly powerful in global markets. This economic shift also strongly influences international political power relations. The establishment of the World Trade Organisation (WTO) and the accompanying liberalisation of trade in goods and services have created novel transnational spaces of operation for corporations, together with increasingly complex value chains.

2.6.2. Shift towards multilevel governance

There is a simultaneous movement of political power – generally deliberate and coordinated – from the national level of government up to transnational levels and down to local governments, referred to as multilevel governance (Hooghe and Marks, 2003). The position of local and regional actors as actors independent of national governments has clearly become strengthened (Pierre, 2000). Consequently, decisions that impact local conditions and practices may now originate from different levels and even entail sequential decision-making *across* levels, e.g. through delegation as well as transnational and intergovernmental networks. In the European context, the expansion of the European Union has been a key driver of, as well as response to, this vertical dispersion of authority.

2.6.3. The emergence of network governance arrangements

Recent decades have seen a prolific debate on the emergence of network governance in the political sciences. Network governance can be defined as the attempt to achieve common goals through complex processes of negotiations between autonomous but interdependent public, private and societal actors (Kooiman 2003). Network governance complements both hierarchical rule-making and market competition by introducing participatory governance approaches; an example is consumer interests in labelling and certification systems. A related development is the emergence of hybrid governance systems in which public and private regulation interact in complex ways, e.g. for coordination along transnational value chains or in response to new consumer demands. This has led to concerns about the power of corporations to impose standards, and control market access and surveillance (Gupta et al. 2020)

2.6.4. Shift towards complex multi-sectoral governance

Policymaking with a sectoral focus is not and will not be able to respond to global challenges and trends that are regarded partly as ‘wicked’, if not ‘super-wicked’, problems (Levin et al. 2012). The trends faced by forests and the forest sector demonstrate that problems arise only to a minor extent from within the sector. They instead have diverse and interconnected social, economic, environmental and technological determinants, as well as associated multi-sectoral policy configurations. These cross-sector interdependencies have increased the need to organise connectivity and policy integration between sectors (Candel and Biesbroek 2016). The development of the UN SDGs and associated governance arrangements provide a good example of attempts to foster such connectivity (United Nations 2015). The capacity of governance systems to process multiple logics of operation and to anticipate and adapt to changing circumstances has become critical (Feindt and Weiland 2018).

2.6.5. Austerity measures

The great recession of 2007-09 led many European governments to adopt a policy of austerity, involving considerable cuts in public spending. It appears that austerity measures aggravated the recession and slowed down economic revival, escalated health and social crises, and contributed to the rise of illiberal democracy (Mounk 2018). Apart from affecting people working in the forestry sector, these measures also challenged the financing of green ambitions (Comerford et al. 2010), the abilities of stakeholders to engage in forest management (White et al. 2018), and the capacity for emergency responses, such as fire management.

In the context of forestry, all these governance considerations mean:

- Forest governance has become increasingly multi-scale and cross-sectoral. International forest-related laws, norms and policy strategies interact with a wide range of regional, national and local policies. Policymaking initiatives that affect forest management are pursued by a suite of institutions, including public and private actors.
- The EU has increasingly leveraged its role as a major importer of forest-related products to influence forest governance outside its own borders through, for example, prohibiting the import of

illegally produced wood products, setting sustainability standards for biofuels and supporting zero deforestation commodity initiatives.

- Meanwhile, policies in other sectors, such as the European Common Agricultural Policy (CAP) and Natura 2000, also influence priorities for land and forest use. The strong relationship between climate change and forests has been a particularly

important driver of multilevel, multi-sectoral forest initiatives, and is likely to continue.

- Complex polycentric and multi-sector governance also typifies efforts to promote a bioeconomy, where the path transition towards bio-based production and innovation is strongly interconnected with environmental concerns, involving different sectors and non-governmental interests.

3. How are forests and the forest-based sector currently governed?

The preceding section highlights an essential point: that the forest-based sector involves a wide range of sectors and multiple interests, at different levels, making up a complex multi-sectoral governance system. Forest products and services are, even more, an inherent and integrated element of many other sectors, ranging from energy to food production to conservation and public health. From a policy perspective, this emphasises the relevance of considering forest governance – from global to national level – as a multi-sectoral endeavour.

3.1. A snapshot of global forest-relevant instruments in Europe

International efforts to agree on a comprehensive and legally binding agreement on forests have, to date, not been successful. However, there are several key ‘forest-relevant’ conventions that play a central role in global decision-making on forests. Foremost among these are the CBD¹, the United Nations Framework Convention on Climate Change (UNFCCC)², and the United Nations Convention to Combat Desertification in Countries Experiencing serious Drought and/or Desertification, particularly in Africa (UNCCD)³, that came out of the 1992 United Nations Conference on Environment and Development (UNCED) – also known as the ‘Rio Earth Summit’ (Rayner et al. 2010).

From a forest perspective, the relevance of the CBD cannot be overestimated, especially as a legally binding convention. For instance, the CBD’s Aichi Biodiversity Targets underpin the EU Strategy on Biological Diversity and its subsequent implementation by EU Member States (European Commission 2011). The EU’s network of nature protection areas (Natura 2000) is also based on CBD principles and goals (Beresford et al. 2016). Forests play an important role in the Natura 2000 network as they hold a significant proportion of Europe’s threatened biodiversity. Efforts to preserve forest habitats and species are consequently intertwined with global and EU objectives to arrest biodiversity loss.

Efforts to tackle climate change through the UNFCCC have also increased the overall attention to forests over time, as specified through the Kyoto Protocol (2005), the Paris agreement (2015) and various other decisions taken over the last decade (Turnhout et al. 2017). Key mechanisms for addressing forest emissions under the UNFCCC include the LULUCF mechanism, which stipulates how developed countries can account for land use and forest-related emissions, and the REDD and REDD+ mechanism, which focuses on reducing forest loss in developing countries. The relevance of the UNFCCC in the EU is demonstrated by the inclusion of GHG emissions and removals from LULUCF in the 2030 climate and energy framework, adopted in 2018 (Regulation 2018/841). Recent literature shows that LULUCF still poses major challenges and contradicting views on identifying its impacts on forests and forest management (Nabuurs et al. 2018b, Kallio et al. 2018, Grassi et al. 2018).

There are also other legally binding agreements for the international trade of forest products, such as the World Trade Agreement (WTA), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Cites), and the International Tropical Timber Agreement (ITTA). For example, Cites is implemented in the EU through the Wildlife Trade Regulations (Regulation, 338/97). These instruments stress significant intersectoral links between trade, deforestation and the degradation of global forests. Other key initiatives of cross-sectoral relevance include the Amsterdam declaration ‘Towards Eliminating Deforestation from Agricultural Commodity Chains with European Countries’ (2015), the New York Declaration on Forests (2014), the UNECE Aarhus Convention (1998) on access to justice in environmental matters, and the UN Declaration on the Rights of Indigenous Peoples (2007).

It can be noted that while the number and complexity of international instruments affecting forests have proliferated over time (McDermott et al. 2007, Rayner et al. 2010), there is also an increased recognition that fundamental societal challenges (e.g. climate change and biodiversity loss) require

¹ See <https://www.cbd.int>

² See <https://unfccc.int>

³ See <https://www.unccd.int>

integrative policy solutions. This type of integrative thinking is evident in the 2030 Agenda for Sustainable Development⁴, which demands an integrated approach to natural resource use and management, including forests. For instance, from an SDG perspective, it can be noted that Sustainable Development Goal 15 (life on land) explicitly states the need to “protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”. This goal, in short, recognises the synergistic interactions between forest, water and biodiversity, calling for integrative and collective action.

Relevant, non-legally binding forest-relevant instruments include two key outputs from the 1992 Rio Summit, namely, the Forest Principles and the Agenda 21 (Chapter 11, Combating Deforestation). These instruments have, among other things, contributed to almost 300 proposals for forest-relevant actions at the global, regional and local level during the 1995 to 2000 period, as well as the establishment of the United Nations Forum on Forests (UNFF) as an international forum to discuss forest-relevant issues. In support of better integration and policy coherence with forest-relevant SDGs, it can be noted that UNFF has set out six Global Forest Goals and 26 associated targets (e.g. increase forest area by 3% worldwide by 2030). Another example of a global voluntary effort is the Bonn Challenge⁵ as well as the Global Partnership on Forest and Landscape Restoration⁶. The aim of these initiatives is to bring 150 million ha of deforested and degraded land into restoration by 2020, and 350 million ha by 2030. Such targets are linked to other forest-relevant international commitments, such as the SDG Target 15, the Aichi Biodiversity Targets, the UNFCCC REDD+ goal and the Rio+20 land degradation neutrality goal.

There have also been initiatives driven mainly by the private sector. One prominent example is forest certification. Forest certification aims to provide market incentives for SFM by setting standards for responsible forest management and awarding green labels to producers who meet those standards. (Two major certification systems compete with each other: the Forest Stewardship Council

(FSC)⁷ and the Program for the Endorsement of Forest Certification (PEFC)⁸, launched respectively by international non-governmental organisations (NGOs) and by the forest-based industry and forest owners (Cashore et al. 2004). To date, the majority of the world’s certified forest area is located in the temperate and boreal forests of Europe and North America (Ehrenberg-Azcárate and Peña-Claros 2020). Increasing the forest products from sustainably managed forest and expanding the forest areas that are sustainably managed represent one of the Global Forest Goals introduced by UNFF.

Integral to the forestry regime on trade and certification, there is also an emerging regime for the assurance of transnational timber legality, aimed at controlling trade in illegally logged wood and wood products. For instance, the EU’s Forest Law Enforcement Governance and Trade (FLEGT)⁹ initiative, interacting with public legal timber regulations and private legality verification and sustainability certification schemes, constitutes a global timber legality regime (Cashore et al. 2016).

3.2. Regional initiatives affecting forests governance in Europe

In parallel with the proliferation of global agreements, there are several forest-relevant initiatives that have emerged at the pan-European level. Foremost among these is the Ministerial Conference on the Protection of Forests in Europe (MCPFE), later renamed Forest Europe, which is a voluntary political process encompassing 46 member countries including the EU and its Member States, the Russian Federation, Switzerland and Norway. This process has generated a series of voluntary political commitments and, most importantly, a definition of what SFM means in the pan-European context, together with criteria and indicators that form the basis for the State of Europe’s Forests Report (Linser et al. 2018). Further, a political process to establish a legally binding agreement (LBA) on forests within the United Nations Economic Commission for Europe (ECE) region is ongoing. Despite a breakdown in negotiations in 2007, informal negotiations are running again to discuss options for restarting negotiations on an LBA for forests in preparation for

4 See <https://sustainabledevelopment.un.org/post2015/transformingourworld>

5 See <https://www.bonnchallenge.org>

6 See <http://www.forestlandscaperestoration.org>

7 See <https://fsc.org>

8 See <https://www.pefc.org>

9 See <http://www.euflegt.efi.int/>.



the eighth Ministerial Conference on the Protection of Forests in Europe, in 2020.

The CBD has also had an impact on the regional level. The pan-European response to the implementation of the CBD has been the Pan-European Biological and Landscape Diversity Strategy (PEBLDS)¹⁰, which was endorsed at the third Environment for Europe (EfE) Ministerial Conference in 1995 (in Sofia, Bulgaria). Other forest-relevant predecessor agreements have also been adopted and ratified at the regional level. For example, the Bern Convention on the Conservation of European Wildlife and Natural Habitats¹¹, ratified in 1982, which includes a list of forest species to be protected, as well as the European Landscape Convention¹², which relates in parts to forests. Two sub-regional agreements, the Alpine Convention and the Carpathian Convention, have protocols on forests which are binding to several countries in the respective mountain regions.

3.3. Forest governance in the European Union

Forest policy in the EU is characterised by a paradox. The EU does not have a common forest policy, and forest products (except for cork and some forest-related fruits) are excluded from existing EU treaties. This implies that the formulation and implementation of forest-relevant policy is subject to the principle of subsidiarity (article 5(2) of the EC treaty) and is under the competence of EU Member States. However, there is a long history of EU-level action on forestry and forest monitoring measures. In fact, policy instruments that affect forest goods and services include several EU policy domains, ranging from climate to energy to agriculture, where the EU has explicit competencies. These policy instruments affect everything from forest management to the provision of forest ecosystem services to global timber trade.

Due to this complex policy arrangement and intersectoral interactions, it is often argued that the EU does in fact have a forest policy despite lacking the explicit competence (Aggestam and Pülzl 2018, Aggestam et al. 2017, Pülzl et al. 2013). For instance, the EU has adopted forest-relevant legislation

(such as the EU Timber Regulation, the Common Agricultural Policy and the Habitats Directive) that affect the forest-based sector directly because of its existing competences in agriculture, trade, environment and energy. This provides one argument for contending that the EU Commission has competences on forests. However, from the perspective of governing forestry and forests within the EU, the European Commission does not have competences, though currently challenged via article 191 of the treaty on the functioning of the European Union (TFEU) on natural resources. It can only propose legislation linked to its shared or exclusive competences as outlined in the TFEU¹³. These diverging perspectives are relevant, not only because there is no common agreement on whether there is an EU forest policy at all, but because, in the absence of a common language and framework on forests, the likelihood of multilevel governance and integrated forest management is exceedingly low.

It is beyond the scope of this report to provide an in-depth introduction to all forest-relevant policy domains in the EU. However, it is interesting to note that recent estimates suggest that more than 570 policy documents, including legislation (see Figure 1), have direct or indirect effects on the EU forest-based sector (Rivera León et al. 2016). This supports the notion that there actually is an indirect “EU forest policy” and that the EU acts on forests through regulatory frameworks based on competencies in other sectors¹⁴. Nevertheless, the complex interactions between different sectors affecting the use of forest resources highlights a core challenge for a coordinated policy approach on forests, namely, the fundamental synergies and trade-offs that remain unresolved. This holds particularly true given the competition between different political paradigms, such as energy and biodiversity conservation. To briefly consider some of the key challenges facing the forest-based sector, now and in the future, three case examples are introduced below.

10 See <https://www.cbd.int/doc/nbsap/rbsap/pebls-rbsap.pdf>

11 See <https://www.coe.int/en/web/bern-convention>

12 See <https://www.coe.int/en/web/landscape>

13 The forest-based sector falls outside annex I and article 42 of the TFEU that define the products that come under the CAP. All competition rules consequently fully apply (EU competition law is mostly derived from articles 101 to 109 of the TFEU).

14 For example, the precautionary principle (detailed in article 191 of the TFEU) has implications for the forest-based sector as it aims at ensuring a higher level of environmental protection. This demonstrates how the EU can put forward legislation that affects forest management on the Member States level.

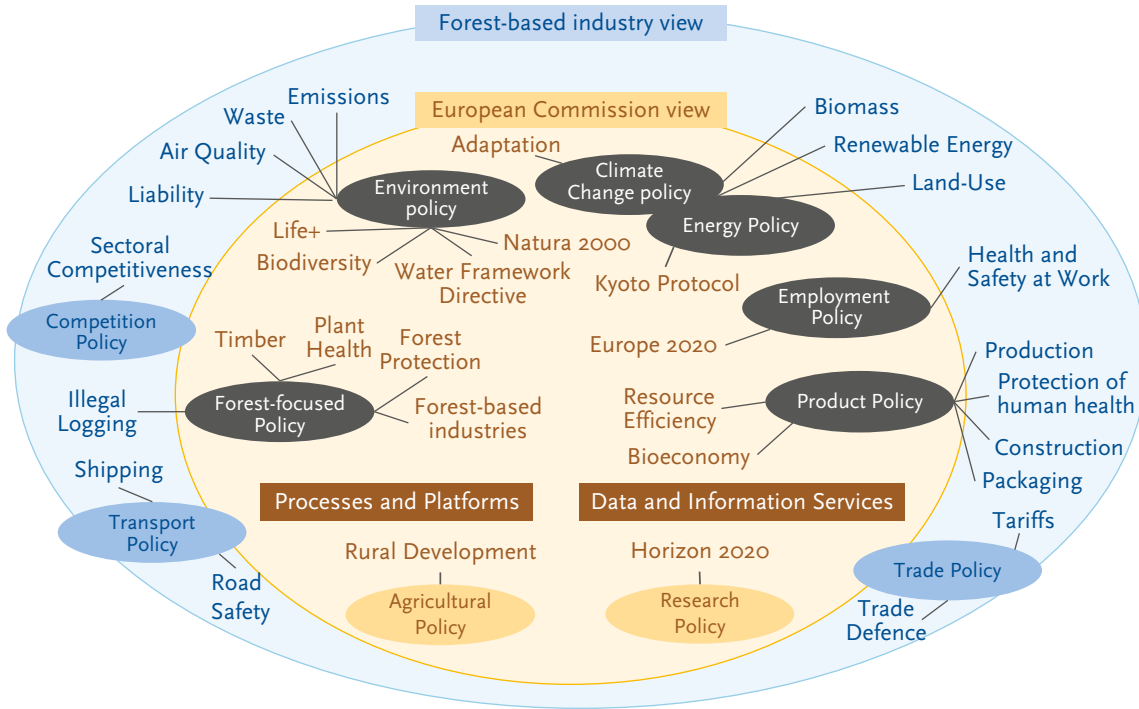


Figure 1. EU forest-relevant policy instruments (Source: Aggestam and Pülzl 2018).

3.3.1 The legal challenge for EU forests

The current EU Forest Strategy was adopted in 2013 and its multi-annual implementation plan (Forest MAP) in 2015 (European Commission 2013, 2015b). It sets out a soft framework for EU forest policy aimed at enhancing coordination between EU forest-relevant policies and outlines the ambition to tackle new challenges facing forests and the forest sector, including the growing demands on and threats to forests. The strategy addresses cross-sectoral topics that include competitiveness and job creation, forest protection and the delivery of forest ecosystem services through a multifunctional approach. It explicitly notes areas where the EU has a competence as well as relevant processes and platforms through which coordination should take place, examples being the Standing Forestry Committee (SFC), the Civil Dialogue Group on Forestry and Cork, and the Expert Group on Forest-based Industries and Sectorally Related Issues (European Commission 2015b). The strategy is based on the notion of subsidiarity and a shared responsibility between the EU and its Member States.

First and foremost, multilevel forest governance is hampered by the lack of legal authority and access to EU financial instruments (Aggestam and

Pülzl 2018). Moreover, with regards to the prospects of having an actual impact on forests, the EU Forest Strategy has had a limited impact on national forest policy (Pelli et al. 2012, Sotirov et al. 2015, Vogelpohl and Aggestam 2011, Winkel et al. 2013, Wolfslehner et al. 2019a). Essentially, the strategy is not relevant at the level of EU Member States. This has led to the prevailing argument that the EU Forest Strategy simply does not have enough political traction to facilitate the policy, behavioural and operational change needed to achieve policy coordination and cooperation across sectors (horizontal) and levels (vertical).

It has further been argued that an LBA on forests (such as the one being negotiated through Forest Europe) may help to address the absence of an EU competence on forests. However, it is highly unlikely that the LBA is the ‘silver bullet’ professed by many. An LBA will not provide the mechanism needed to address cross-sector interdependencies, nor facilitate connectivity and policy integration between sectors – at least, not in the short nor medium term. The basic ingredient for this to happen is political willingness and that still appears to be missing at the levels of both EU and Member States. However, with recent developments such as the bushfire crisis



in Australia, perhaps now is a moment to push forest issues higher up the political agenda.

3.3.2 The challenge to balance trade-offs between policy objectives: renewable energy and biodiversity

The recently revised Renewable Energy Directive, as part of the clean energy for all Europeans package, establishes a common framework for the use of energy from renewable sources in order to limit greenhouse gas emissions (Directive 2009/28/EC, Directive 2018/2001). Countries have, among other things, agreed on binding targets to increase the share of renewable energy in their energy consumption. The new directive establishes a binding 2030 renewable energy target for the EU of at least 32% of final energy consumption, with a clause for a possible upwards revision by 2023¹⁵. It is an example of climate and energy legislation that will facilitate significant land-use change, thus having an impact on forest use and composition. In a nutshell, renewable energy targets may require changes to land-use patterns and forest composition (e.g. incentives for landowners to choose fast-growing tree species) to satisfy the demand for woody biomass, at least in some Member States. For example, the total land-use change caused by the EU's 2020 biofuel mandate has been estimated at 8.8 million ha (mostly from new cropland). This is equal to the total land area of Austria. The demand for wood biomass to reach bioenergy targets for 2030¹⁶ could further come in part at the expense of tropical forest and peatland.

In contrast, the Habitats Directive and Birds Directive (Directive 92/43/EEC, 2009/147/EC) are commonly considered as the core engines of EU environmental policy. These directives set out obligations to protect, conserve and restore habitats and species to help combat biodiversity loss by EU Member States. The Habitats Directive and Birds Directive also establish the Natura 2000 network, made up of special areas of conservation and special protection areas for habitats and species across the EU. Among other things, Natura 2000 and its associated policy frameworks entail legally binding

provisions for achieving or maintaining favourable conservation states; these provisions are of direct relevance to forests and forest management (Sotirov 2017). It is also relevant to consider the EU biodiversity strategy, which sets out six targets and 20 actions that aim to halt the loss of biodiversity and ecosystem services by 2020 (European Commission 2011). The strategy encourages Member States to establish forest management plans in line with biodiversity aspects and SFM by 2020.

However, there can be many synergies and trade-offs between biodiversity conservation and other forest management goals (e.g. wood production, bioenergy use, recreational uses). However, these can also rise from perceived or experienced ideological, material and institutional conflicts during implementation (Sotirov 2017). This demonstrates the complexity inherent to the implementation of SFM (or multifunctional forestry) where environmental, social and economic forest management goals can conflict with each other. Having this in mind, EU efforts to curb climate change are therefore likely to affect biodiversity, demonstrating incoherently aligned targets set by climate, energy and nature conservation policies. Trade-offs relating to potentially conflicting issues, such as biodiversity conservation or bioenergy use, are not being tackled, and limited interactions between these sectors suggest that sectoral barriers are not being broken down. In total, the variety of instruments ranges from EU regulations to individual actions by Member States. Successful initiatives driven by Member States are, for instance, the European Forest Genetic Resources Programme (EUFORGEN)¹⁷ and the INTEGRATE¹⁸ project that demonstrates the integration of biodiversity into forest management.

3.3.3 The challenge of a European Green Deal and future prospects

The new European Green Deal proposal¹⁹ has set out an ambitious plan to transition to carbon neutrality by 2050. Forests are, of course, part of this deal, although the focus on them remains unbalanced and narrow. The deal's primary focus for forests is in increasing forest sink, biodiversity protection, and afforestation and restoration of forests. Overall, it conveys a scenario that forests are under

15 Under the new governance regulation, which is also part of the Clean energy for all Europeans package, EU countries are required to draft 10-year National Energy & Climate Plans (NECPs) for 2021-2030, outlining how they will meet the new 2030 targets for renewable energy and for energy efficiency.

16 https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report_GLOBIOM_publication.pdf

17 <http://www.euforgen.org/>

18 <http://www.integrateplus.org/home.html>

19 https://ec.europa.eu/info/publications/communication-european-green-deal_en

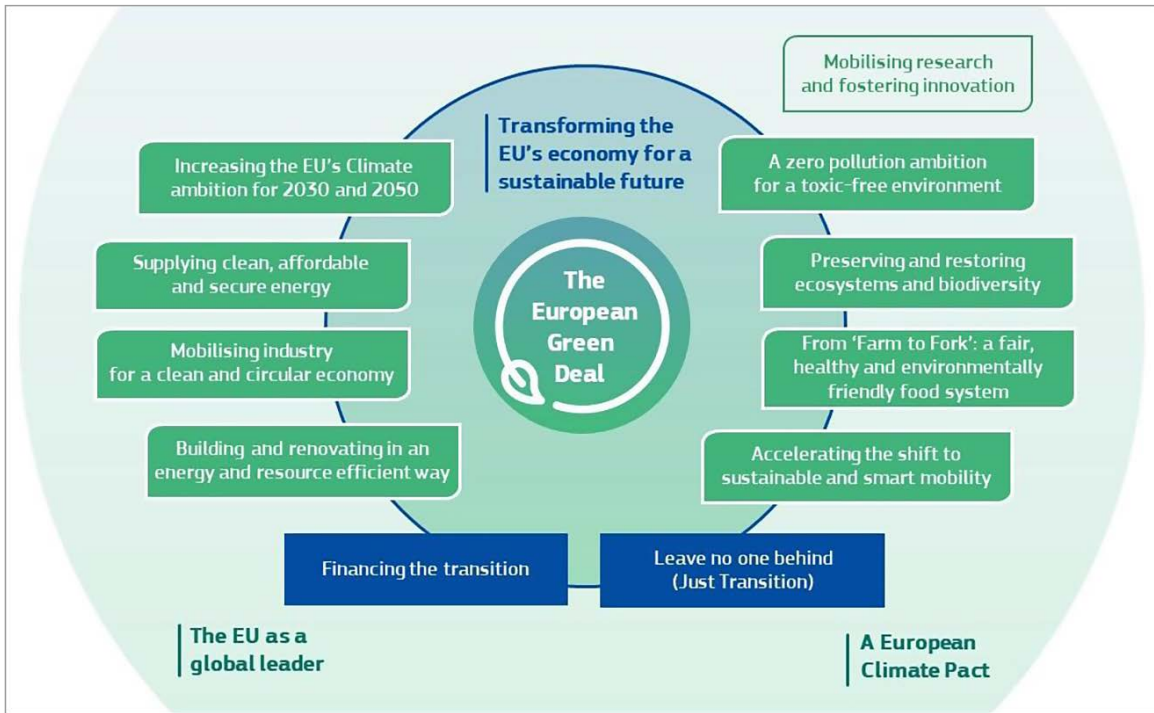


Figure 2. The European Green Deal (European Commission 2019).

pressure and require preservation, restoration and additional afforestation to respond to the climate and biodiversity ‘crises’. Positively, the Green Deal holds a strong potential for change and provides new pathways for actively integrating, in a more operational way, biodiversity and climate change issues in SFM. Hardly mentioned at all are the potential of forests and forest resources in a circular bioeconomy (as actively discussed over the past decade), the role of ecosystem services, the meaning of forests for rural development and rural-urban interactions, the understanding of SFM and multifunctional forestry. It will be important to clarify these issues to avoid creating confrontational scenarios for forests. For a climate-neutral Europe, forests need to be discussed across their full spectrum, including forest services, forest-based products, renewable energy and their substitution impacts along the value-chain. It will also be important to develop measures that help to maximise synergies and minimise trade-offs between the different services and products that forests provide.

The Green Deal is, at this stage, still a proposal and has not been fully fleshed out. However, it is generally lauded as a positive development and it is likely, eventually, to have important impacts for Member States’ forest sectors. Yet, if there is

anything to learn from the lack of a clear governance structure for the forest-based sector, there is a significant risk of forest interests being sidelined once more, while prominent interests take the centre stage. The implications may be yet more incoherently aligned targets set by other sectors. If a new forest strategy is to be the main tool to address forests at the EU level, there will need to be significantly more interactions with Member States and forest sector stakeholders in order to turn the Green Deal into a solid concept that can address the challenges society faces in the transition to climate neutrality and the support that the forest-based sector can provide.

3.4 Key lessons learned about EU policy instruments affecting forests

The examples above have covered only some of a much wider set of challenges. However, they highlight that EU forest-relevant policy is characterised by fragmentation and contradictory policy objectives that suggest varying degrees of importance for forests, coupled with policy targets that have a wide range of impacts on forests. EU forest-related policies pursue distinct and, in parts, contradicting ideas of what forests are for and how they need to be

managed (Aggestam and Pülzl 2018). One example is the apparent conflict between targets set for nature conservation and renewable energy. The lack of structures at the EU level that would allow for the formulation of a comprehensive approach has resulted in competing policy objectives and lack of coherence (Aggestam and Pülzl 2018, Aggestam and Wolfslehner 2018, Sotirov and Storch 2018, Wolfslehner et al. 2019a).

Forest-related policies are woven into a fabric of interconnected institutions, policies and sectors, all of which are having an impact. Related to this, the preceding policy overview (see Figure 1) demonstrates that there is no commonly accepted framework under which all social, economic and environmental issues affecting forests and the forest-based wood chain can be addressed and coordinated effectively. In the absence of such a framework, distinct sectoral policies and their respective logics and interest structures will continue to shape how European forests are being managed.

The implications of these variations, not only in terms of the legislative background, but also in how forest management is understood, is that the implementation of measures supporting forests are largely sector specific. Nature conservation, rural development, forestry, cultural heritage and all other sectors affecting forests are focusing primarily on their own policy objectives, remaining largely within their own silos. While references are frequently made to other sectoral policies, integration is hampered by competing sectoral interests and conflicting policy goals and objectives (Aggestam and Pülzl 2018, Winkel and Sotirov 2016). Both vertical (i.e. from EU to national level) and horizontal (i.e.

cross-sectoral incoherence) challenges are consequently defining and characterising forest-relevant policy in the EU, making any prospects for policy integration and multilevel forest governance unlikely at this point in time.

It can be concluded that:

- In the absence of an explicit EU competence on forest policy, forest-relevant EU policies lack cohesion and coordination. Most measures are voluntary. The absence of an authoritative coordination mechanism leads to fragmentation of policy, which means that multiple governance frameworks affecting forests have emerged at EU level with little coherence.
- Most forest-related policies push for different sectoral priorities – at times, even for specific forest ecosystem services. This implies the need for policy integration and/or a process through which these priorities can be managed.
- Priority setting remains uncoordinated at global and EU levels, mirroring diverse socioeconomic interests. The key to managing forests in the future may thus reside in finding shared goals that can accommodate all interests and account for necessary trade-offs.
- The Green Deal might be a game changer in forest policy since it potentially shifts the focus on how forest resources are considered. Though not fully elaborated, there is tendency towards protection and restoration of forests throughout the EU. Thus, the question of how to maintain the full range of forest goods and services, their contribution to a non-fossil economy and their importance to rural and urban societies is now subject to a new discourse.

4. Insights from other policy domains

This chapter contains insights from policy integration efforts within EU agricultural, energy and water policy – i.e. established adjacent policy domains that have interacted substantively with forest policy and may do so even more in the future. Coordination experiences from such adjacent policy domains can provide important insights that will help as we address some of the future challenges in EU forest policy.

There are many reasons why policymakers need to coordinate policies across sectors, not least in addressing the Sustainable Development Goals. However, economic sectors are subject to different sectoral institutions, policy goals and instruments that have been established over time. Meanwhile, jurisdictional and territorial areas often overlap, creating further needs for policy integration. Such integration – or policy coordination – can take various forms, ranging from information exchange to the development of a shared strategy and instrument mix (Candel and Biesbroek 2016). Integrated policymaking requires comprehensiveness at the input stage, aggregation in the processing of inputs and consistency in outputs. More specifically, integrating environmental considerations into key policy domains, such as forestry, agriculture and energy, has become one of the central tenets of ecological modernisation and a prerequisite for sustainable development. In addition, environmental policy integration forces policymakers to make choices in cases of conflicting objectives, which may expose, rather than reconcile, fundamental conflicts of interest and value.

Policy integration requires genuine political commitment to the issue that is to become integrated as well as facilitating institutional mechanisms and policy learning (Feindt 2010). Integration is highly dependent on overall political guidance, in addition to a range of more specific structural and institutional measures. More specific measures could include conducting ex-ante impact assessments, auditing and ex-post evaluations as well as enabling cross-sectoral dialogues and creating learning platforms while acknowledging dilemmas and trade-offs (Nilsson and Eckerberg 2007).

4.1 EU agricultural policy integration

4.1.1 Agricultural policy integration since its start

Agricultural policy has been regulated by the EU since the 1960s, through shared competences with the Member States. The Common Agricultural Policy (CAP) of the EU foresees the creation of market orders for the agricultural goods listed in article 42 of the TFEU (note that except for cork, no forest products have been integrated into the CAP so far – see chapter 3). These authorise interventions in agricultural markets to guarantee politically determined minimum prices through import levies, buying-up of surplus, public storage and export subsidies. Exploding costs to the EU budget and trade-distorting effects made this system politically untenable by 1990. The MacSharry reform of 1992 reduced guaranteed prices but compensated farmers through the introduction of area-based direct payments that were linked to production and conditional on 15% set-aside to reduce overproduction. The Fischler reform of 2003 brought further price reductions and higher direct payments linked to newly established rules of good agricultural practice, aligning the CAP with sustainability goals. The 2013 Ciolos reform extended the area-based payments but made 30% conditional on three ‘greening’ requirements: maintenance of permanent grassland, crop diversification on arable land and provision of ecological focus areas on 5% of the entitled land. Impact analysis, including a report from the European Court of Auditors (2017), found that ‘greening’ required changes to land management practices on less than 5% of the acreage covered by the premium. Together, area-based direct payments, market orders and export subsidies (the latter now mostly phased out) form the ‘first pillar’ of the CAP.

To broaden the public appeal of the CAP, various ‘rural development programmes’ have been bundled together as the second pillar since 1999. The second pillar contains support programmes for agricultural investment and agro-environmental programmes, as well as the LEADER programme which supports cooperation for innovation in rural areas (since 2006, predecessor programmes since 1991) and the European Innovation Partnership

'Agricultural Productivity and Sustainability' (EIP-AGRI, since 2012). LEADER and EIP-AGRI are credited for enabling social learning and more integrated innovations. In the financial period 2013–2020, about 20% of the CAP budget has been allocated to the second pillar, compared to more than 70% for the area-based direct payments, which alone absorb more than 28% of the entire European budget. A large share of these payments are passed on to land owners (for leased land), input providers and other actors along the supply chain, raising questions about transfer efficiency. Furthermore, area-based direct payments are not linked to the needs of recipients but to land area. This means that 80% of the payments go to the largest 20% of farms.

The European Commission's legislative proposals for the CAP post-2020 respond to the widespread criticism of the CAP by proposing a 'new delivery model'. If adopted, the proposal would significantly change the governance model of the CAP. While maintaining a common policy framework with nine overarching objectives, much more flexibility would be given to Member States to address national and regional priorities. Member States would be asked to develop national strategy plans based on a science-based needs assessment with stakeholder input. The strategy plans would encompass the first and second pillars of the CAP and would have to be approved by the Commission. Member States would need to demonstrate the mechanism through which the instruments address the objectives. A set of indicators would monitor the policy output and impact. Member States would be required to offer 'eco-schemes' under the first pillar – i.e. area-related annual measures which are non-mandatory for farmers. Hence, according to the Commission's proposal, Member States could devote about 60% of their CAP budget to environment and climate-related measures. However, responses in the Agriculture Committee of the European Parliament and the Agriculture Council indicate robust attempts to maintain a strong farm income support policy and to reduce the attached requirements as far as possible. Sceptics also expect a race to the bottom, leading to lower standards in Member States during the implementation of the CAP.

Overall, the CAP has created a large number of policy instruments to address sustainability issues, including a range of ecological, economic and social forestry measures. Over time, the framework of

agricultural and rural policies has been significantly changed towards 'greening' (Lowe et al. 2010) and the CAP development contains significant elements of environmental policy integration (Feindt 2010). In line with international developments, the entrenched productivist orientation has been complemented by more recent concerns about the environment (Daugbjerg and Feindt 2017). However, the CAP's efficiency and effectiveness in contributing to sustainability goals is severely limited by insufficient budget allocation and deficits in implementing regulatory instruments (e.g. Pe'er et al. 2017).

The fact that the CAP has adopted instruments that address concerns other than farm income and agricultural productivity is due to shifts in the broader governance framework. While the European agricultural sector's impacts on the environment, climate change and public health have long been recognised, only the horizontal provisions in the Amsterdam and Lisbon treaties required an integration of "environmental protection requirements [...] into the definition and implementation of the Union's policies and activities. These provisions have resulted in the gradual incorporation of post-materialist concerns, which prioritise environmental, social cohesion and identify concerns over consumption and growth, into agricultural policies across governance levels" (Daugbjerg and Swinbank 2016).

4.1.2 Key insights from EU agricultural policy integration history

The policy integration process in the EU's Common Agricultural Policy has been widely studied (e.g. Feindt 2010, Daugbjerg and Feindt 2017, Lynggaard and Nedergaard 2009). From this body of literature, three key lessons and insights can be distilled.

First, the integration of environmental and other sustainable development concerns has been more a process of *incremental* rather than radical change. Since the introduction of the first agri-environmental measures in 1988, consecutive reform rounds have added and refined a range of sustainability measures, such as cross-compliance, various rural development schemes and, most recently, the 'greening' of direct income support. Despite widely resonating calls for more radical reforms – some have even pleaded for a transition of the CAP towards a comprehensive EU Common Food Policy (Fresco and Poppe 2016) – the CAP has proven remarkably resilient in upholding the original focus

on farm income support and related instrument rationales. New policy dimensions have been added to the existing framework without significantly changing the underlying logic, resulting in a process of policy layering over the last three decades (Daugbjerg and Swinbank 2016). This process may for a large part be explained as resulting from the traditional ‘exceptionalist’ status of agricultural policymaking, which posits that agriculture needs special treatment because it is fundamentally different from other sectors due to structural disadvantages, sector-specific market anomalies and exposure to risks from weather, pests, plant and animal diseases and invasive species. ‘Exceptionalist’ agricultural policymaking involves a “distinct set of sector-oriented institutions and ideas” and “well-organised and well-resourced sectoral interest groups” (Daugbjerg and Feindt 2017). Recent theories might indicate that this status is gradually shifting towards a ‘post-exceptionalist’ situation, denoting a partial, but not complete, departure from “compartmentalised, exclusive and exceptionalist policies and politics” (ibid). The potential policy change in the CAP is also limited by a need to balance three main discourses that articulate different objectives and governance ideas: agricultural productivism, market liberalism and multifunctionalism (Feindt 2017, Erjavec and Erjavec 2015).

Second, considerable discrepancies between the integration of *goals* and *instruments* have been reported. Whereas the European Commission’s legislative proposals, as well as the EU institutions’ broader rhetoric, have paid considerable lip service to international climate and sustainable development commitments, this has hardly resulted in the adoption of instruments with the potential of realising a genuine shift of production modes or attaining ultimate objectives. Indeed, the watering down of greening ambitions in the post-2013 CAP reform round has led some commentators to refer to this reform as ‘greenwashing’ (Alons 2017).

Third, increasing attention has been placed on the *vertical dimension* of policy integration, ie across governance levels. Following substantial national differences in farm structures, food system challenges and political preferences, Member State governments have been given considerable implementation space in recent CAP reforms (Swinnen 2015). This trend is expected to continue in the post-2020 reform, which has already introduced the

formulation of National Strategic Plans, containing the specific objectives and interventions that Member States aim to realise. Although this increased flexibility potentially allows for better tailoring of, and support for, interventions, it has added an additional coordination challenge and may undermine the basic rationale of the single market. Moreover, it may lead to considerable differences in the extent to which climate, environmental and public health concerns are brought on board in agricultural interventions across Member States.

Overall, the CAP has developed into a highly specialised, contained set of policies with a specific set of mutually reinforcing ideas, institutions, interest groups and instruments. Policy integration has occurred only under enormous outside pressure to address longstanding policy failures and to improve the public legitimacy of enormous tax-funded budgets. However, the success of policy integration has been partial and was only possible after the introduction of horizontal clauses in the TFEU so that it now requires all EU policies to contribute to sustainable development and a high level of environmental, consumer and animal protection. The orientation of the policy towards income support, enshrined in article 39 of the TFEU, has created a bulwark of lobby organisations that defend the continuation of redistributive policies with mostly symbolic integration of other concerns. The most important lesson from the CAP is that forest policy should not be allowed to move down a similar pathway. Approaches to establish the remuneration of public goods and ecosystem services must ensure an ambitious baseline to avoid large public expenses with little additional effect.

The development of distinct institutional settings regarding the governance of forest, agricultural and water surfaces remain a major barrier towards an integrated territorial approach. The path dependency of each sectoral set of institutions is reproduced through distinct worldviews and discourses, diverging legal frameworks, institutional rules and organisational routines, different organisational and industry networks, distinct sectoral interest groups and very different policy instruments.

4.2 Energy policy and forests

Energy policy has originally developed without clear legal foundation and emerged particularly



in connection with EU competencies on internal market and environmental provisions (Tosun and Solorio 2011). Formal competences for energy policy were introduced with the Lisbon treaty essentially affirming the status quo. The content of article 194 of the TFEU that depicts this progressive policy development can therefore be seen as a ‘form of its institutionalisation’. However, common EU competences stretch only around common objectives (competition, security of supply and sustainability) and therefore encompass the internal energy market, clean energy and the security of energy supply. Member States were rather reluctant to concede further authority to the supranational level. National resources and the national energy mix, as well as taxation, remain a Member State competence (Bocquillon and Maltby 2020). While it can be argued that Member States remain in the driving seat, since their heads of states produce political guidelines in the European Council and guard sovereignty issues in the Council, the European Commission has legislative competence and its main role in peer review and monitoring is to achieve such common energy objectives (Bocquillon and Maltby 2020). In addition, aspects such as energy efficiency measures, which have been introduced since the 1970s, cut across various policy sectors. Energy efficiency measures have increased incrementally over time without any EU legal authority to do so. Those measures were framed as an answer to climate change and energy security concerns while being linked to environmental and internal market competences.

What can be learned from this policy field is that incremental change can happen despite an absence of legal EU authority: the policy development was related to other policy sectors and framed in their context. However, in contrast to EU forest policy-making so far, Member States have agreed to create a legal basis with the Lisbon treaty, not least because of external events such as the 2014 crisis in the Ukraine, or the former Polish prime minister calling for the creation of an energy union and the Commission president making it a top priority (Herranz Surralles et al. 2020).

Energy policy is also a field of growing importance to European forest policy due to the call for renewable energy and high expectations for woody biomass. In 2016, the Commission presented its revision of the Renewable Energy Directive (RED) for the period 2021–30, with an overall EU target of at

least 27% renewable energy, representing a mere 6% increase from the expected share of renewables in 2020 over 10 years. In 2018, this target was further raised to 32% in the so called RED II (Directive 2018/2010/EU). Along similar lines, RED II sets a 14% target for renewable energy in transport by 2030 and the fuel quality directive (FQD) requires a 6% reduction in the carbon footprint of transport fuels. This has direct relevance to forestry in Europe, since woody biomass is one of the main elements of Europe’s energy transition. In line with the precautionary principle, bioenergy production from forests needs to be assessed to ensure that economic, environmental and social concerns are sufficiently taken into account.

While there is little conflict over bioenergy produced from wastes and residues, competition over land use becomes more problematic due to the many ecological, social and economic issues at hand. Because of such concerns, the EU Parliament decided in 2015 to limit at 7% the use of land-grown biofuels (also known as first generation) that can count toward the 10% renewable energy target in transport by 2020. Still, despite growing conflicts between environmental, social and economic interests, the expectation is that high demand for wood-based biofuels as part of ‘bioenergy for green growth’ will continue to be a dominant reason for promoting the production of bioenergy within European forests (Söderberg and Eckerberg 2013). However, scientists still disagree about whether wood harvested directly for bioenergy use should be treated as a carbon-neutral fuel (Berndes et al. 2016, 2018, Searchinger et al. 2018). Moreover, when discussing climate change mitigation action in forest management, Klapwijk et al. (2018) draw the conclusion that decisions on the use of forests for bioenergy are impeded by a lack of knowledge about the biophysical and social consequences, resulting in normative disagreement about acceptable forest use having an overarching influence on decision-making. As biofuels gain market share, the need to ensure sustainability along the whole supply chain becomes more pressing. This includes aspects such as land use, agricultural practices, GHG emissions and competition with food and energy efficiency. Despite considerable resistance from the forest sector in particular, sustainability requirements for bioenergy were adopted in RED II and into the EU biofuels and bioliquids sustainability scheme (EU Commission 2010).

Three main factors suggest that the future use of forest biomass produced in the EU may not be as large as is often expected: (1) ongoing structural changes in global and EU forest products are likely to result in lower demand for forest products in the EU; (2) impacts of international trade in forest biomass, where imports to the EU are likely to increase; and (3) market incentives and adjustments that may help to clear the ‘gaps’ between supply and demand for forest biomass (Hetemäki et al. 2014).

4.3 EU water policy and forests

EU water policy governance has evolved within the past three decades and is closely linked to its environmental competences. In this context, measures were initially linked purely to economic considerations and later to environmental preservation including public health and transboundary issues.

The EU’s Water Framework Directive (WFD) stipulates the two goals of ‘good ecological status’ and ‘good chemical status’ to achieve sustainable water management, bringing a holistic perspective on water management. It requires monitoring the status of all ‘water bodies’ and the development of preventative measures, and emphasises participation via information to all citizens, consultation with affected groups and broad engagement by relevant public and private stakeholders in the development of management and action plans. In those EU countries dominated by forests, such as within the Baltic Sea region, both water quality and quantity can be considerably affected by forest management practices (Ring et al. 2018). Then, in line with the sector responsibility principle, the forest sector has the coordinating role for ensuring water protection within forestry, even if forests are not explicitly mentioned in the WFD but only in the annex.

In reality, the required measures are generally based on already existing practices and are dominated by the use of soft policy instruments. In the light of climate change and the growing risk of ground water shortages across Europe, along with concerns for the quality of drinking water, there is reason to believe that the importance of water management goals will also grow within European forest policy, especially in those Member States with extensive forests. Protecting and managing forests for improved water quality and quantity may therefore become a preferred policy option in the political debate.

4.4 Conclusions: What could forest policy learn from other sectors?

Our assessment of agricultural, energy and water policies allows for two types of conclusions, the first relating to **possible impacts from these policies on forest issues** and the second responding to the question **what lessons can be learned from research into these sectors?**

The EU policies we have assessed do affect Member States’ forest policy and management. Moreover, they have led to considerable tensions and disputes over which goals to prioritise and how. In the absence of a strong mechanism for the coordination of forest-related policies at the EU level, this integration task is largely delegated to countries, which results in distinct priority setting at national and subnational levels, reflecting respective contexts and interests. Conversely, however, this may result in a lack of integration of Member States’ forest policy objectives and approaches at the EU level, possibly increasing tension and mismatch between EU policy setting and national forest policy priorities. This combined challenge of vertical policy (between the EU and Member States) and horizontal policy integration (across policy domains) is highly ambivalent. From the perspective of (domestic) forest sectors, it increases the likelihood that they are at the receiving end of policy initiatives emerging from sectors with strongly developed vertical policy integration, such as the agricultural and environmental policy domains. Vice versa, the lack of vertical integration is a significant barrier for the forest sector to initiate integration with other policy domains.

However, the actual effects for European forest policy are context-dependent. Existing studies point out that ‘selective integration’ of, for example, bioenergy and climate change considerations into forest policy has partially occurred, creating pressure on EU and national biodiversity policies and legitimising a (returning) focus on ‘timber harvesting’ in forest policy (Sotirov and Arts 2018, Sotirov and Storch 2018, Storch and Winkel 2013). Likewise, the implementation of EU biodiversity and water policies in forests, through Rural Development Programme (RDP) funding, has been hampered due to a mismatch between EU and Member States’ priorities and an institutional mismatch despite the integration of forestry and biodiversity/water aspects



into the RDP/CAP (Geitzenauer et al. 2017, Sotirov 2017). The ‘two-level and many sectors’ integration challenge is resulting in tensions not only between policy sectors but also across policy levels (Winkel and Sotirov 2016).

An improved form of cross-sectoral integration – e.g. between agriculture, energy and water policy goals at the EU level, on the one hand, and forest policy goals in Member States on the other – would require a transparent assessment of the potential synergies and trade-offs between those goals. In addition, institutional measures would need to be put in place to accommodate improved learning and to handle emerging conflicts in practice.

Some further lessons can be learned from the assessment of the policy sectors above.

First, research on other sectoral policies, and particularly the CAP and energy policy, suggests that incremental adjustments are more likely than radical policy transformations. There are obviously strong path dependencies in EU policies that may result from difficulties in adapting complex European policies at the interface of sectoral and Member States’ interests in ways other than by rather incremental changes. Political science findings, in relation to the nature of major policy change, indicate that above-incremental changes are likely to occur only in the event of major policy-relevant shifts in power – e.g. resulting from major events that concentrate high-level policy attention on a sector and shatter the existing ideological and interest-based inertia. In forest policy, this could be major forest-related disasters or dramatic shifts in public opinion. However, agricultural policy shows how even events like this

might not lead to a substantial departure from the given, path-dependent policy approach. If a revision of the ‘double policy integration challenge’ in forest policy (as explained above) is intended, policy strategists need to make wise use of changing the overall settings and inertias of the status quo – drawing on shocks, major shifts in the political system or societal perspectives, or similar.

Second, many attempts to strengthen cross-sectoral policy integration do not get beyond symbolic politics – i.e. the adoption of overarching goals without an accompanying mix of instruments and consistency of practices. Policy integration typically unfolds in path-dependent processes. New concerns are reframed to fit prevailing discourses and policy designs are likely to follow sector-specific trajectories. Integrating forest-related concerns into other policy domains therefore requires a deep understanding of their rationale and operational principles – which is less likely in a situation where no effective forest sector policy coordination exists at the EU level.

Third, advancing policy integration and the recalibration of existing instruments, or the adoption of new instruments and practices, requires genuine and sustained political commitment. It necessitates political leadership that appeals to the interests of more than one of the most concerned sectors (or the Member State). Given the current context of (dis-)integration of forest sector policy at the EU level, it is doubtful that such leadership can result from (national) forest policy experts alone. Maybe it needs an approach that strives for cross-sectorally integrated leadership – strategic alliances with other sectors to advance shared (parts) of a forest policy agenda.

5. Towards an EU forest policy post-2020: interests and expectations

5.1 Introduction

EU forest policy essentially mirrors the diversity of societal demands on forests across Europe. Hence, political interests in forest policy also follow these trends. This section provides an overview and analysis of the interests and expectations of Member States' representatives with responsibility for forests, members of the European Commission and a Brussels-based set of forest-related non-governmental policy actors (forest sector associations and environmental NGOs). Part 1 of the chapter draws on a literature analysis while part 2 is based on the analysis of 32 semi-structured interviews conducted between May and July 2019 and a Brussels workshop held in November 2019 with 20 participants for a follow-up discussion on the interview outcomes. Three Member State representatives, two Directorates-General (DG) representatives, 10 interest group representatives and five researchers took part.

Forest experts from 18 EU Member States (including northern, southern, eastern and western European countries) were interviewed. Fourteen interviews were held at EU level: five with representatives of the European Commission DGs with an interest in forests and nine with forest interest groups in Brussels (forest owner and industry groups as well as environmental NGOs). The interviews were conducted between May and July 2019; this means they were carried out before the European Commission Green Deal proposal was published and therefore do not reflect the discussions that this proposal has generated. Anonymity was guaranteed to interviewees.

5.2 Part 1: literature assessment

Previous research has shown that there are three major lines of arguments that can be used for a simplified analysis of interests in a European forest policy.

First, while the subject of how forests should be used in Europe is a nuanced one, research (e.g. Winkel et al. 2009, Edwards and Kleinschmit 2013, Winkel and Sotirov 2016, Aggestam et al. 2017,

Sotirov et al. 2017) has indicated that there is a major dichotomy between those who perceive forests as a natural resource to be managed sustainably and those who regard them as a natural ecosystem to be protected. The first view emphasises the importance of an economic and competitive forest sector and includes forest owners, state forest services and companies, and the forest industry. This leads to a perception that EU forest policymaking should abstain from too much interference and market regulation but should rather support the sustainable use of forests and wood. The second view prioritises the importance of forests for biodiversity and as the largest 'close to nature' ecosystem in Europe. Emphasis is put on protecting forests against environmental stressors but also from over-intense management, requiring regulation to ensure that ecological concerns are sufficiently considered. These two 'ideologies' are prominent in many European policy debates on forest issues. They also help to explain the existing policy fragmentation, as well as existing conflicts of interests.

Second, different views exist in the European forest arena when it comes to deciding the preferred level of forest policymaking and coordination (Wolfslehner et al. 2019a). The question of the appropriate level of forest policy coordination has been controversial for decades (Winkel et al. 2009, Pülzl et al. 2018, Aggestam and Pülzl 2018). While all European countries have formulated legal frameworks for forestry at a national level, no common legal competency has been established for the forest sector as a whole, in contrast to agriculture and trade, neither at the EU level nor at the pan-European level. However, a degree of functional policy integration has taken place as numerous policy instruments which affect forests have been developed over time (Pülzl et al. 2018).

Third, there are different perspectives on forests and forest management across Europe, depending on the ecological and socio-economic setting of forestry in the respective regions (Rametsteiner et al. 2008, Winkel et al. 2009). For instance, in the past there was an approach in parts of northern Europe that was primarily oriented towards forest biomass production. This can be distinguished from



an emphasis on multifunctional forestry in central and partly eastern European countries, ecologically oriented forest management in some parts of western Europe, plantation forestry on an ‘Atlantic rim’ and, finally, a preference for forest protection and rural development in the Mediterranean. However, over time these different approaches have tended to merge and, today, multifunctionality is the dominant approach across EU Member States. However, the different perspectives are still present in European debates on forest policy issues – e.g. relating to the necessity to regulate forest management for biodiversity, or preferences relating to free market-based approaches versus approaches emphasising the need for subsidies (Winkel et al. 2009, Winkel and Sotirov 2016). Regional circumstances are eventually connected to different interests in policy interventions – e.g. requests for subsidies to spur rural development in some Mediterranean countries, in contrast to an interest in limiting European-level market interventions that comes from countries with a production-oriented, competitive forest sector. Finally, country interests are also diverging when it comes to Europe’s positioning in international forest policymaking. Here, ‘consumer’ and ‘producer’ countries with related timber-producing or importing sectors have been distinguished in previous work on EU forest policy, which goes along with distinct interests in regulating either trade or domestic forest production (Leipold et al. 2016, Sotirov et al. 2017).

While these three lines of argument are repeated in the literature, it is also obvious that the positions of the involved countries and stakeholders are subject to changing preferences and circumstances, vary in their governance mechanisms (Lazdinis et al. 2019), and may shift depending on the issues at stake (see Sotirov and Winkel 2016). Hence, in the following, we provide an assessment of the interests and expectations towards current and future EU forest policy based on an empirical assessment.

5.3 Part 2: empirical assessment of interests and expectations

This chapter draws exclusively on the analysis of the 32 semi-structured interviews conducted between May and July 2019 (before the European Commission proposal on the European Green Deal was published).

5.3.1 Current European forest policy: multiple understandings

Interviewees described the current forest policy of the European Union as fragmented or even non-existent. A common EU forest policy was seen to be lacking and only a weak forest strategy was felt to exist, perceived as a reflection of key forest values.

On the other side, no ‘vacuum to fill’ was identified. Forest policy was also described as largely influenced and regulated by distinct sectoral policies – for example, the common agriculture policy and climate or environmental policies (e.g. LULUCF regulation, Natura 2000 and the renewable energy directive). These policies were seen as often difficult to follow, scattered across different decision-making levels and not driven by the forest sector.

Interviewees at the EU level mentioned that policy fragmentation resulted from inconsistent sectoral policies related to forests, competing interests of Member States and between DGs, as well as the multifunctionality of forest ecosystems, which link them to such distinct interests. Their further reasons included different interpretations of, and practices relating to, the implementation of sustainable forest management among Member States and a lack of coordination *within* Member States (different ministries and government levels).

Some Member State interviewees perceived the missing political mandate at EU level as impeding a stronger influence of the forest sector. However, this was mainly seen as a result of the sector’s own reluctance to defer more competencies to this level. When it comes to existing EU legislation, on the one hand competences were already understood to be overstepped, due to existing EU legislations affecting national forests and forest management methods. On the other hand, the current state of EU forest policy was described as satisfactory, as it safeguarded sustainable forest management at the national level.

5.3.2 Multifunctionality and the future role of forests

The analysis showed that the multifunctionality paradigm remains dominant in the EU forest policy debate. Although the multifunctionality of forests is entrenched in the current EU forest strategy, interviewees differed in their diagnosis of its status.

Member State interviewees leaned towards balancing the diverse interests in forests and their

manifold goods and services. A clear division focusing more on environmental or production aspects could not be observed. (Note that only Member State representatives focusing on forests were interviewed, not those in charge of climate and/or environmental policies.)

The analysis of interviews with Commission services and stakeholders in Brussels exposes the division in views between environmental and forest-use stakeholders. Although the former group is not opposed to forest use, it perceives the balance between use and conservation as distorted. Trade-offs between forest production and biodiversity protection need to be acknowledged and better regulated. On the other hand, forest-use stakeholders emphasise the need to implement a bioeconomy to reach climate change goals. They understand active forest management to be crucial for biodiversity conservation and the climate adaptation agenda.

Member State interviewees highlighted the role of forests in rural development and biodiversity. Forests are understood as key to solving pressing problems, such as climate change, the transition towards a circular bioeconomy and sustainable development at global scale.

Interviewees at the EU level see two major lines for forests: on the one side they are seen as a climate change mitigation tool (e.g. carbon sequestration and using wood in construction) to further the transition to a low carbon economy. It is also clear that more emphasis is placed on forest adaptation in policy discussions. On the other side it is perceived that discussions will be moving away from climate change mitigation and energy towards climate adaptation. Forests are also seen as a reservoir for biodiversity, a potential hub for rural development and protection for people against risks, especially in mountain areas (e.g. storm, flood etc.), while being simultaneously affected by climate change (e.g. pests, fires etc.).

5.3.3 Forest actors and coalitions, and their main objectives

To understand the perceived roles of actors and their main objectives in forest policy discussions, interviewees were asked to list the most important actors, coalitions and countries sharing similar objectives regarding the future of forests in Europe. These coalitions do not represent majority groupings in forest-related decision-making processes but are instead

identified as informal groups of actors / countries sharing similar interests concerning forest issues.

The Council of the European Union, the European Commission, and the European Parliament, especially with an increasing green party component, were often listed as the most important actors in the European forest policy sphere. The existing divergence between environmental and forest-use oriented groups at an EU level was confirmed by interviewees. This included distinct perceptions of which DGs within the Commission are the most influential, pertaining to forests. The environmental groups predominantly felt that the directorate-general for agriculture and rural development (DG AGRI) is too influential with its strong focus on forest use. At the same time, the forest-use orientated groups perceived the directorate-general for environment (DG ENV) as too strong an actor.

Forest organisations in Brussels, as well as the general public influencing from the 'outside', are also seen as important. Austria, Finland, France, Germany and Sweden were highlighted as the most active countries in forest-related discussions.

Interviewees at the EU level described coalitions as being of a shifting nature and varying according to the topic or policy at hand. Two prominent coalitions are nonetheless identifiable:

- (1) Non-governmental environmental groups tend to form coalitions when it comes to topics such as deforestation and bioeconomy, support measures against the first issue and are sceptical about the second.
- (2) Forest industry and forest owner organisations in turn support sustainable forest use and active forest management and the bioeconomy concept. Some interviewees see Nordic Member States as part of this coalition.

In contrast to this major ideological fault line between conservation and forest use, Member States' positioning is often nuanced in response to forest (management) traditions and the natural conditions of the regions. While the empirical assessment at hand cannot draw on a full representative sample of Member State representatives, the interview results with forest experts show some trends. The main coalitions as identified by Member State representatives are:

- **Northern countries** were linked to an economically profitable forest industry, supporting the bioeconomy paradigm.

- **Southern countries** were perceived as already suffering from climate change effects such as droughts and fires.
- **Eastern European countries** were described as reluctant to give further competencies to the EU.
- **Western European countries'** main interest was perceived to be the sound implementation of EU legislation.
- **Some central European countries** were seen as more supportive of a stronger integration of forest issues at EU level.
- **Coalitions responding to the specific interests of their economic sectors**, namely 'non-producing (importing)' and 'producing (exporting)' countries, were also identified.

However, some interviewees stated that, at the time when the interviews were conducted, a proper discussion on the future of forest policy at an EU level had not started and other Member States' preferences could only be assumed.

5.3.4 Level and modes of forest policy regulation

The national level is currently regarded as the main level for forest regulation. On the one hand, it was said that forests should remain within the competency of the Member States, though the EU may need to develop more policies to create checks and balances on the use and management of forests. On the other hand, one argument against Member States "safeguarding the competency for themselves" was that they are already bound by EU-level policies affecting forests. These policies set standards which the forest sector would not be able to influence sufficiently. The tactic of several Member States to guard their competency is therefore seen as harmful to the forest sector by some stakeholders, in particular the forest-use orientated ones.

At the EU or pan-European level, one-size-fits-all regulation on forests is seen as difficult or not feasible, due to the diversity of interests and existing national forest laws. At the same time, at the EU level, coordination on forest issues and of coherence in EU legislation affecting forests is missed. Increasing harmonisation and cooperation at the EU level on the topic of forestry could lead to a strengthened sector, and could be enabled by establishing a more holistic regulative approach. A framework directive on forests in Europe is seen as

a solution to the fragmentation created by sectoral policies. However, a change in competencies on the topic of forests would not be supported by Member States. While interviewees miss a 'true' discussion among actors on possible future levels of regulation on forest topics in the EU, some interviewees did not foresee the need to talk further about this topic, as sufficient regulative instruments are established at different levels, though to the satisfaction of only a few of those interviewed. Forest policy regulation at the pan-European level (the discussion on a legally binding agreement (LBA) on forests) was highlighted several times, as the related legal instrument could, once established, be taken up by the European Union.

The global level was seen as too broad and diverse for regulative instruments, whereas there might be some general guidelines on the role of forests in the context of the Sustainable Development Goals, the Paris agreement and biodiversity.

5.3.5 Visions and expectations for a future EU forest policy

The visions of a future EU forest policy until 2030 differ in relation to the desired policy solutions, the themes to be tackled and the roles forests should play in future policy processes. Based on the interview analysis, four different visions were identified (see Box 1). These visions do not reflect established country coalitions but, interestingly, cut across them.

Member State interviewees' visions for the future EU forest policy can be seen in the four main positions in Box 1. While the differences between visions 1 and 2 are clear, as the first deals with EU external competence and the second tackles EU internal competences, the differences between visions 3 and 4 are minor. However, the analysis of interview data showed that an updated and strengthened EU Forest Strategy could also be linked to competence loss in order to enhance coordination. The last vision aimed to maintain the current status quo and update the strategy only to a minor extent, putting more emphasis on safeguarding Member States' competences, and can be considered business as usual.

Interviewees at the EU level shared vision 4 with Member State representatives, but are divided between visions 1 and 3, while vision 2 is invisible from their perspective, as it was said that forest

Box 1. Member States' visions on the future of EU forest policy

Vision 1. Act upon external push: change to a common EU forest policy through an LBA.

It is expected that only a push from outside the EU could create a common forest policy. In order to mimic other EU policies (e.g. climate and biodiversity policies), a pan-European legally binding agreement and its definition of SFM and multifunctionality was understood to have the potential to lead to proactive policymaking at EU level while safeguarding Member State competence on forests. A holistic policy instrument, which could act as a defence tool against other policies and to ensure more coordination and coherence, was envisaged.

Vision 2. Pursue competence delegation: changes in current EU forest policymaking resulting from competence delegation to EU institutions.

A competence delegation to EU institutions for developing a more integrated and coherent policy is expected to lead to both weaker and stronger policy instruments, depending on the context. The latter depends on the selected form of integration – e.g. an integrated sector strategy beyond forestry vs stronger policy integration with other forest-related policy instruments vs a legal regulation for forestry operations.

Vision 3. Updating and strengthening the EU Forest Strategy: change through an updated and new Forest Strategy that strengthens Member State competences.

While Member State competences in relation to the EU would be strengthened, it is understood that more coordination was linked to competence loss. This vision was in contradiction to visions 1 and 2. It is expected to lead to more visibility and increased influence of forest issues through an updated strategy that keeps Member State competences strong. However, this approach is not expected to 'control' other EU sector policies that impact forestry, and is seen as also giving limited access to financial means.

Vision 4. Maintain status quo: no major changes in current EU forest policy.

This last vision is fuelled by the idea that Member State competences should be safeguarded, including keeping forest policy high on the political agenda. This is linked to the need for a coherent, coordinated position on how forests should be managed within the EU, including trade-offs discussion.

competencies lie with Member States and therefore competence delegation could not be supported. A more nuanced version of vision 3 appeared from the data analysis. Two paths extend from an update of the Forest Strategy. It could lead only to setting a vision for the European Commission or to developing a stronger policy instrument in the form of a directive that provides enough flexibility to Member States in line with their competencies.

The wish to strengthen forest policy, as well as the need for a more coordinated and coherent policy approach towards forests and forestry, could be observed throughout the interviews. However, no unanimous view exists on how this could be

achieved, if at all. Though a strengthened forest policy perspective to safeguard forest objectives (e.g. SFM for multifunctional forests) is envisioned – most notably by Member State representatives – a further integration of the topic at the EU level was accompanied by fears of overregulation and resulting harmonisation of national forest laws.

At the workshop organised in November 2019 in Brussels, the four visions were discussed with EU-level stakeholders and Member State representatives. Vision 3, on updating and strengthening the EU Forest Strategy, seemed the preferred option for those present. It could provide an opportunity for coordination/cooperation, mutual learning and

a holistic view on EU forests and forestry. Cross-border forest damage, climate change adaptation and biodiversity-related issues were listed as important aspects to be addressed by a new or updated forest strategy. While it keeps Member States, stakeholders and the Commission services on board, it also gives Member States the opportunity to have a certain degree of freedom. Weaknesses identified for this vision include unclear governance between Commission services and a lack of political power for this approach. Weaknesses of Visions 1, 2, and 4 were said to be: for Vision 1, current EU policies impacting forests would still exist even if a common policy is developed. Vision 2 was not popular, as competence delegation in one field may weaken competence delegation in others; also the political will of Member States to pursue this option was perceived as lacking. Although Vision 4 was viewed as an interesting bottom-up approach, it was not seen as a desirable scenario. Furthermore, there remains a need for coordination, collaboration and mutual learning, particularly to deal with the common challenges to forests that all Member States face.

Contrary to the desired future as seen above, interviewees were asked to share their 'realistic' expectations concerning the EU forest policy in the next 10 years. Attempts to further regulate forestry issues were anticipated as part of normal policymaking processes (e.g. including updates of policies), but are also expected to increase. However, it was acknowledged that such initiatives – and their success – cannot always be anticipated.

Future forest-related disturbances were expected to potentially increase attention both at political and citizen levels. Societal support through better communication with citizens and the execution of a communication campaign, and also the development of a strong, new EU Forest Strategy, may drive new EU forest policy actions.

Competing interests between Member States to reach a stronger and/or common EU forest policy were portrayed as hampering EU policy change. It was argued that forest owners' support for an EU forest policy will depend on a better evaluation of forest ecosystem services, as income from wood production are expected not to suffice in the future. Bigger EU reforms, as well as the new European Parliament and Commission, were seen as unknown influencing factors that impact EU forest policymaking in the future.

5.3.6 Topics seen as requiring action at the European level

The most important topics outlined were climate change and its effects on forests, the adaptation of forest ecosystems to those changes and the mitigation effect of forests as carbon sinks. Climate change is expected to receive further attention and, with that, the importance of forest issues was expected to increase. The climate change discussion is also expected to support forest policymaking in the EU, as SFM is seen as supportive for adaptation. At the same time, forests are also expected to be seen as big biodiversity reservoirs.

Discussions around the global footprint of our economy and a circular economy are understood as potentially benefiting EU forest policymaking. However, it was also cautioned that the preference for one forest ecosystem service over another (nature protection over forest use and vice versa) instead of seeking to balance them, will most likely continue. Other change drivers that were anticipated are a rising demand for timber, linked to the transition towards a bioeconomy, land pressure due to conflicts over resources, and changes in the political atmosphere towards the European Union itself.

Further topics listed as important differed among participants, but include the following: supply of timber for the transition towards a bio-/ circular/ green economy; expected increased production with respect to all ecosystem services, while finding a balance between citizens' views and different services; demand for well-functioning wood product markets, including a non-discriminatory policy for renewable forest products and fair competition between countries; a lack of labour force in forestry was seen as problematic in the future (eastern Europe); support for rural development and the decrease of the economic efficiency of the sector; forest protection and afforestation; SFM and multifunctionality of forests; avoiding illegal trade and global deforestation; biodiversity protection and sustainable limits on forest use; payments for ecosystem services; and research and information services on forests.

5.4 Concluding remarks

There are multiple understandings of the current state of EU forest policy, ranging between non-existent, fragmented and weak. A perceived tug of war over the role of forests (natural resource to be

managed sustainably vs natural ecosystem to be protected), as identified by the literature analysis, was confirmed by an overwhelming majority of interviewees. The need to find a common understanding and broad agreement for the sustainable use of multifunctional forests was expressed, as the balance of conservation and use is perceived to be distorted.

Different perspectives prevail on forest actors' coalitions across Europe, depending on the ecological and socio-economic setting of forestry in the respective regions. While the interviewees applied known and expected patterns in their replies on coalitions of countries and stakeholders, the results also showed that, as countries mix, new coalitions form based on how they envisage future forest governance.

Controversy exists around the preferred level for making and coordinating forest policy. The results show a variety of envisioned approaches towards a more coordinated forest sector and more coherent policies affecting forests at the EU level. At the same time, a change in competence at the EU

level regarding forests and forestry seems out of the question. However, it is feared that the strategy of Member States to retain forests within their competency is failing, as other sectors' policies affect forests more and more.

While different visions for a future EU forest policy were identified, an update of the existing EU Forest Strategy received most support during the workshop. However, the lack of implementation of the current EU Forest Strategy and its action plan, and the perception of its limited impact on other EU policies (see Wolfslehner et al. 2019a), seem in apparent contradiction to the preferred policy option of updating and enhancing that strategy, especially gearing it towards a Member State implementation perspective. While there are tendencies towards support for rural development, assessment and payments for ecosystem services – and for marketing sustainable timber for the transition towards a green economy – one topic, uniting all, is seemingly the challenges of a changing climate for forests and the role that forests can play in this respect.

6. Pathways for future European forest policy – a matrix approach

Based on the previous chapters, several potential pathways for future forest policymaking in Europe can be outlined. A matrix approach was chosen to systematise the main elements of such integration pathways and to synthesise major outcomes of the analytical work done in this study – and not to limit options a priori.

Based on the analysis of this report, integration can be pursued along the following gradients:

- a. **Multilevel or vertical integration** spans from low integration at principally national levels to high integration across multiple levels of governance (from national to EU and international levels).
- b. **Sectoral or horizontal integration** stretches between low integration within the forest sector and along the forest-based value chain to high integration across forest-related policies and respective sectors in the EU.
- c. **Governance integration or integration of actors and institutions beyond government** ranges from governmental steering, dominated by state actors, to integrating various private and societal actors in a direction towards private self-governance.

These pathways are not exclusive and, in reality, can be partly overlapping. They can be seen as narratives on how forest-value chains can be governed. We first outline the main elements and then discuss the main advantages and disadvantages of each pathway.

Pathway 1: from low to multilevel integration

P1a) Low vertical integration – business as usual

This pathway follows the lines of current forest governance, in a setup that renders forest policy mainly a national affair while responding to existing EU forest-related instruments. At the EU level, this would imply the continued development of guiding instruments by the European Commission in the form of a rather ‘soft’ forest strategy with no binding elements for forest-specific themes. Forest industry self-regulation in terms of setting own standards

and developing firm codes of conduct for the use of sustainable produced biomass would be encouraged through soft steering (e.g. based on the EU bioeconomy strategy).

The advantages are that countries can set – at least in principle – their own forest priorities according to their specific needs and national trends (not megatrends), and further build on national instruments to satisfy the needs of national stakeholders. This creates a certain level of flexibility for national forest policymaking. Micro-vertical integration might happen as ‘coalitions of the willing’ (i.e. like-minded) countries can instigate common activities without requiring full consensus on forest topics across the EU (e.g. forest genetics). This might also include concepts such as *enhanced cooperation* or *enhanced joint action* of Member States. In times of rapidly evolving policy contexts, an established governance framework such as this, that governments and stakeholders are already familiar with, will grant some level of stability in terms of established procedures, working groups and committees that allow for immediate response to new policy developments post-2020. In particular, in countries with a federal political system in place, the complexity of forest governance is not further increased. In a low-integration set-up, such soft instruments have their strengths in creating guiding principles and common goals, enhanced information exchange and promotion of a coordinated approach towards SFM. Making e.g. the Forest Europe process stronger would satisfy many of these needs, still mainly within the sector but tackling major parts of the value chain.

The disadvantages are that the representation of forest and forestry issues is expected to remain weak in EU policymaking. Existing forest working groups and committees are expected to continue with little to no influence, compared to other policy stakeholders in the EU policymaking and consultation processes, or might even vanish in the future. At the same time, the weak forest expertise representation in European Commission services (and in national administrations) will continue, which is an increasing disadvantage as forest-related policy issues are getting more important and complex (e.g. Green Deal, LULUCF, Renewable Energy Directive,

Taxonomy). A ‘soft’ forest strategy provides only general guidance on the EU’s priorities and gives little incentive to countries for implementation; it remains mainly a symbolic gesture without genuine political commitment. A stronger coordination of forest policy measures, currently missing (e.g. in the EU Forest Strategy), cannot be expected. A recalibration of existing EU policy instruments is unlikely, but may rather serve to try to reach specific policy aims (e.g. carbon storage, afforestation and forest preservation in the Green Deal). Since the responsibilities for forestry issues remain vague, the policy outputs on an EU level are expected to be quite unpredictable, depending on the temporary political priorities of individual Member States. A common response to quickly evolving megatrends is unlikely (e.g. a rapid response mechanism for climate change impacts), in particular, if they reach beyond the forest sector. The outreach of forestry issues to a broader policy framework and a broader public remains low, which many studies indicate is the current state. The voice of the EU in international forest processes remains weak, because of national interest predominance. In summary, the forest sector continues to operate reactively rather than proactively towards EU forest-related policies.

P1b) High vertical integration – a strong EU forest policy based on multilevel integration

This pathway implies a stronger role for the EU in forest policymaking. While a common EU competence on forests to overcome forest policy fragmentation seems less realistic in the current EU setup, forests would be given a more coordinated and strategic role and maybe more resources (expertise) in the EU policy framework. Countries would then have to commit to a common direction on forests and forest management, giving the lead to the EU and respective implementation instruments, and to strengthen governance between EU and national levels. This would include the development of an inclusive framework which might be based on binding goals and targets regarding forests, with associated monitoring, assessment and financial instruments. Indeed, this would require a rearrangement of existing EU forest-related policies and the institutions responsible. International coordination on forestry issues would create gravity for building such a framework; a future LBA could serve as a guiding instrument of consensus among Member States

and beyond, also depending on whether the EU is party to such an agreement. The mandate for negotiations for an LBA was signed in 2011 in Oslo, but almost a decade later this has not resulted in the finalisation of such an agreement. When writing this text (spring 2020) the signs are not promising as not even no consensus to restart related pan-European negotiations was found. Hence, it does not seem likely that such an agreement will materialise in the near future. In the absence of an LBA, a strong forest strategy that is on a par with other EU strategies and is clearer in defining goals, commitments, responsibilities, with more resources and links to other sectoral policies, might serve as a transition instrument. An EU framework directive would be an even stronger signal in this direction. This would mean a step further than the current forest strategy, which is mostly intentional and with little outreach and impact, in particular regarding forest policies occurring outside the sector.

The advantages of this pathway are that it is possible to pursue more strategic, coordinated and proactive forest policymaking and implementation across the EU. Monitoring of progress will allow for a clearer assessment of the contribution of forests to overarching policy goals (such as the new Green Deal) and the respective role of the Member States, and will serve as a common response to megatrends, including climate change, as far as they concern forests. This implies better coordination (and stronger coordination bodies) between the EU and Member States, and among Member States, building on a stronger common reference. Financing instruments for implementing forest objectives across the EU would have to develop from appendices (such as in the CAP) to targeted funding sources for R&D, forest management adaptation and sector development, and would require new legislation. Learning from the CAP, this means that financing instruments have to be designed beyond a pure income instrument. Indeed, the markets for roundwood and forest products are already functioning well without subsidies (unlike agricultural markets) but the markets for many of the forest ecosystem services and public goods are not (e.g. biodiversity, carbon sequestration, clean water, etc.). They will require new approaches and coordinated policies. Forest-related consultation of public and private actors at multiple levels would need more attention and time to develop an integrated EU forest policy, which requires



stronger efforts to coordinate activities at an EU level. However, experiences from the CAP show that policy integration mostly happens incrementally. While it requires patience and stepwise procedures, this would also offer an opportunity at an EU level to reconcile diverging expectations from different interests, including citizens and consumers, for forest policy regarding sustainable forestry and forest products. Accordingly, a new EU forest strategy – or much stronger, an EU framework directive – would be a well-recognised, more visible forest policy instrument in multilevel governance that goes beyond current symbolic forest policymaking.

The disadvantages are that the process to achieve this pathway is demanding, given that the current framework is very fragmented and prone to power struggles. Different problems and priorities across the EU (e.g. north vs south as well as within countries) make it difficult to define a common direction, and may result in unequal costs and benefits for each Member State. In addition, intensified coordination requires more human and financial resources. If contradicting forest policy objectives persist at the current magnitude, it is unlikely that countries will give up national competencies. The lack of definition on what are the key drivers for the development of the sector will constitute a major barrier for a stronger integrated forest policy. The forest-related policies proposed in the Green Deal do not yet depict a fully balanced picture of the role of the forest-based sector in the EU. For example, the bioeconomy is very much still missing in the proposal, and there is the need to overcome the possible trade-offs between forest bioeconomy development and a changing shift of forest management towards carbon sequestration and biodiversity conservation (as in the Green Deal). Hence, there are ideological divides at all levels of governance that present obstacles to change. This makes it difficult for forestry stakeholders to receive predictable political guidance and incentives, which in turn are a prerequisite for predictable multilevel implementation and compliance.

Pathway 2: from low sectoral to cross-sectoral integration

P2a) Low horizontal integration – intra-sectoral focus across the forestry-wood chain

Horizontal integration includes aspects of forest-sector value chain integration and integration

with other sectors along a broadened value chain. Low horizontal integration means concentrating on sector specifics and forest products, including in terms of public relations and awareness raising. A traditional conservative approach will be taken to promote the benefits of wood use in particular (e.g. value of wood products campaigns) and the ability of forest and wood experts to create an optimal and trusted portfolio of forest goods and services based on a multifunctional and sustainable understanding. On a political level, this means a high level of competition with policy instruments from other sectors (e.g. biodiversity policies) for influence and funding, and a response to strengthen independent forest policy instruments (e.g. national forest laws). In a forest sector view, interests in forest resources against other competing claims on forests are defended and communicated jointly. Keeping horizontal integration low would mean that the forest-based sector strengthens its profile as major natural resource provider. Processes such as Forest Europe are perceived as instruments of this sectoral understanding (with a decreasing number of observers from outside). To respond to problems such as contradicting objectives and incentives of EU policies and its own fragmentation, the forest-based sector will strive to increase competitiveness against other sectors using classic sectoral policy and stakeholder work. One example of this approach is the claim to be the most sustainable sector and that it is a major player in a bioeconomy, hence gaining a value chain understanding that is genuinely driven by the sector itself.

The advantages lie in the bundling of efforts and resources to gain a value-chain understanding of the forest-based sector that is crucial for future competitiveness. It includes a new sense of confidence in a portfolio of wood and wood-based products, and the enhanced marketing of forest services. Modern services such as in digitalisation are pursued but driven from the demand side of the sector (e.g. LIDAR-based inventories, timber logistics, wood technology). A less defensive representation of the whole sector's interests will create avenues for lobbying at a political level and for stronger thematic R&D funding. It will be possible to demonstrate the benefits of rural development (e.g. for forest owners and service providers) and sectoral business solutions in a bioeconomy, where the competitive advantages of sustainable products need to be better demonstrated.

It can be argued that the multitude and diversity of forest owners and their objectives might form an implicit risk diversification strategy (see Seidl et al. 2016), and require dedicated sectoral tools for support. Sustainability assessments can prove these benefits beyond the traditional claim of being inventors of sustainability. Smart solutions and PR may help to overcome distortions between, for instance, forest management, tourism and hunting.

The disadvantages lie in the fact that the forest-based sector is perceived to be limited to within its sector boundaries (Baycheva-Merger and Wolfslehner 2016). Huge efforts in forest monitoring and collecting information do not reach a broader public in an appropriate way, despite considerable efforts. Defending strategies against external influences and trends are typical for a still traditional sector under pressure. Changing this image might not be helped by forests constantly being reported as beset by calamities. The primacy of foresters' expertise to solve such problems is not widely acknowledged by a broader public. In contrast to the beauty of diversity, mobilising forest owners with quite varied objectives towards superordinate goals remains difficult (e.g. Natura 2000, wood mobilisation). The sector is also divided over its major objectives across different regions in Europe. Compared to other sectors, it is weak in representing its interests on a political level and has hitherto not managed to demonstrate its collective contribution to a future economy in a convincing way. A society that is increasingly urbanising and distancing itself from land-use management, as well as demanding forest services other than traditional wood supply, may not accept a strong intra-sectoral focus. Shortcomings in cross-sectoral definitions and data harmonisation with other sectors frequently lead to unclear messages about forest resources. This particularly refers to the assessment of forest ecosystem services, where quantities and values differ significantly (e.g. wood availability, non-wood forest products, biodiversity indicators). Political decision-making requires unambiguous information and messages. This will remain difficult when visions of the forest value chain differ in sectoral understanding, and sector commodities cannot properly be accounted for (e.g. hybrid products, service sector). Isolated sectors dealing in a circular bioeconomy are not beneficial for promoting a common greater ambition.

P2b) High horizontal integration – cross-sectoral integration between policy sectors

Forest value chains nowadays comprise a plethora of different sectoral and cross-sectoral sub-chains and enterprises. On the one hand, adding immaterial values, policy goals and ecosystem services creates a conglomerate of policies and goals that goes clearly beyond a classic 'forestry' approach. On the other hand, the development of a circular bioeconomy means a more diversified sector beyond the traditional forest sector, including the textile industry, chemical industry, biofuels, construction industry etc., or the forest services sectors, all dealing with the forests. The motive for this pathway is to integrate forest-relevant EU policy objectives from these diverse sectors with each other, making a new EU forest policy where traditional wood production for material and energy use is only one objective among many, such as climate mitigation and adaptation, biodiversity conservation, recreation and land use more generally. While the current EU Forest Strategy lists many of these objectives, the actual integration has not yet taken place (Winkel and Sotirov 2016, Aggestam and Pülzl 2018). Broadening towards a cross-sectoral framework might lead to a stronger comparability of different value chains in a circular bioeconomy and of products in common monitoring schemes, and provide new improved sustainability benchmarking approaches as a consequence.

The advantages of such an option would lie in the political clarification of contradicting visions on how to deal with the resource, and a clear strategy on how to employ forest resources in responding to emerging environmental and economic trends. This may help clarify – though not without conflict – how bioeconomy, climate change and biodiversity goals can be harmonised with respect to forest resources. This framework would require a much stronger approach on analysis of synergies and trade-offs of forest-related goals and targets, e.g. in the circular bioeconomy (see Hetemäki et al. 2017). A comprehensive approach to the provision of forest ecosystem services and response to the strong diversification of the forest-based sector would not work without new cross-sectoral working modalities in the EU and Member States. Ideally, a new institutional framework would be created to allow for parity in the debate on policies affecting forests. Currently, forest-relevant bodies such as the Standing Forestry Committee are more technical than strategic bodies,



and not involved in cross-sectoral decision-making processes (Wolfslehner et al. 2019a). A collective and collaborative forest-related response from EU Member State governments, NGOs and industry to climate change, biodiversity protection and enhancement, as well as sustainable energy and biomass provision, could help to channel the long-lasting disputes between forest management, use and preservation. In the absence of strong vertical integration, this approach could also allow for high-ambition coalitions among like-minded countries, as currently observed in the climate debate. A broader view on supply and demand of forest products and services would respond more accurately to a 'greening' society but requires a new policy framework to accommodate a variety of interests in forest resources, a variety of resource and immaterial demands along different forest-based value chains, and better coordination, data harmonisation and resource planning.

The disadvantages are that it is completely unclear who are the drivers of a strong horizontal integration. For example, in the wake of sketching the Green Deal there were discussions on integrating forestry under the EU Biodiversity Strategy. This could increase integration between biodiversity goals and SFM, but it could also come at the expense of other dimensions and parts of the multitude of forest goods and services SFM aims to address. Strong horizontal integration will also lead to the question of how to optimise the use of forest resources across Europe – i.e. which site would serve best for which purposes. Such an optimisation approach is difficult and would need the implementation of a new holistic approach, perhaps such as climate-smart forestry (Nabuurs et al. 2017, 2018a). A strong focus on biodiversity conservation and carbon storage in forests may have significant socio-economic consequences for affected forest owners and enterprises. The adaptation costs for such an endeavour are not known, nor are the effects on forest service provision and the impacts on forest-based industries. In this way, stronger integration at the policy level could paradoxically also result in a stronger segregation of ecosystem services at the forest management level, when different demands towards forests turn out to be incompatible on the ground, or private land owners successfully refuse integration. In a value chain perspective, such interventions might lead to a stronger regulatory framework, in contrast

to incentivising innovative business models in a bioeconomy, as promoted in R&D programmes in the past decade. The proof is yet to come on how integrative the Green Deal is but its potential for change seems to exist. Understanding integration as the parity of different interests, the Green Deal needs to capture the full range of forest goods and services in the forest value chain. Starting from quite explicit ideas on future priorities (carbon storage, afforestation, preservation, restoration), this will require further political deliberation on how to comprehensively address forest resources in Europe.

Pathway 3: from strong governmental regulation to co-regulation between government and private actors

P3a) Low integration – strong governmental steering

Governmental steering and private actions are not genuinely separated in the current policy framework. Stakeholder involvement, public participation and public-private partnerships do exist. However, in this pathway, governmental actors within EU Member States are the main drivers and will agree on goals and objectives of forest policy not coordinated so far. They build on the competence of the supporting administration to implement related legislation. The outgoing regulative, economic and informative policy instruments will support forest policy objectives. Such approaches can be observed – for example, in eastern European countries, where state regulations on forest management planning (e.g. harvest volumes) are strict and private decision-making is limited by state regulations (Weiss et al. 2012). This approach allows governments to have full control over the status quo or desired changes, while noncompliance will lead to legal consequences.

The advantages are that hierarchical governmental policymaking allows streamlined decision-making by setting clear responsibilities legitimised by democratic political procedures, and would lead to quicker decision-making processes when the desired direction is clear. Compliance with rules and standards is clearly regulated and to be followed by all actors and institutions, while noncompliance can be punished. Responses to megatrends can be

prioritised by representatives of governmental institutions understanding the complexity of the setting, supported by the competence of a strong administration.

The disadvantages lie in the fact that governmental policies have not achieved set objectives in the past, e.g. climate change mitigation or biodiversity conservation. With full responsibility for forest policy-making, governmental institutions will lose credibility for each objective not achieved. Environmental megatrends such as climate change and biodiversity loss are characterised as ‘wicked’ problems that can hardly be solved – if at all – by one group of actors in a top-down approach. Furthermore, compliance and reporting has been a common weakness of governmental policies that fail to take on board non-governmental actors. Overregulation has been mentioned as a potential threat to the EU economy, in particular if public funding is getting scarce (e.g. for environmental services). Examples from the CAP show that public spending can get overly high without achieving respective steering effects. It has been observed that top-down governance quickly reaches its limits with large, heterogeneous target groups such as forest owners, as well as industrial players.

P3b) High integration – co-governance between governmental, stakeholder and forest business actors

Co-governance or network governance – including governmental, business and societal actors in political decision-making – would follow the trend, over the last decades, of societal steering. It stresses and further pushes the EU in the direction described in the green paper on a corporate governance framework. Apart from governmental actors from the national and sub-national levels, or from EU institutions such as the European Commission and the European Parliament, other actors such as NGOs and forest industries bring in their perspective and take more responsibilities in EU forest policymaking and implementation. Integrating non-governmental actors can range from co-governance arrangements with governmental and non-governmental actors (e.g. agreed public-private partnership agreements) to co-governance arrangements between business and NGOs (e.g. certification, private-private partnerships). In the latter case, governments remain without responsibility in decision-making and implementation.

The advantages are that new perspectives are included in societal planning, possibly enabling new ways of governing. Market-based instruments that also known from the international context, e.g. the New York Declaration on Forests, are inspired by the high goals set by diverse actors and make use of the strength of actors involved. These processes receive elevated attention and gain legitimacy because of their attention to the governance output. Perceptions of a diverse set of actors are involved, as well as integration responding to societal trends – e.g. the perception of a more urbanised society. This pathway would respond to the increasing call for more private investment in forestry projects in order to create new business opportunities and innovation in the sector. This could give impetus to more operational support for forest management and marketing for a less innovative sector. Public-private partnerships should be highly attractive for forest-based industries in order to collect combined investment and innovation capital. This has been happening, e.g. via bio-based industries funding, and is likely to be emphasised further in the coming framework programme on research and innovation.

The disadvantages lie in the fact that it would be very difficult to safeguard democracy in the face of strong private sector interests (whether from NGO, industry or some strong citizen group) taking over major governance elements. Governmental steering, via democratically elected politicians, would be sidelined. Also, specific interest groups could cherry pick partnership agreements that are easy to implement, or create private-private partnerships that imply considerable governmental costs once implementation fails or does not reach the envisaged goals. In short, it would put question marks on the democratic legitimacy of such activities. In addition, forest stakeholders who remain outside such partnerships or initiatives will not have a need to comply with these rules and standards, leading to market distortion and potentially resulting in new power struggles. Sight of the bigger picture may become lost as segmental initiatives combat emerging problems – for instance, if private partnerships or investments focus on only one aspect of forests, other aspects may be left behind because they are not necessarily consensus-driven.

Table 1 Overview of pros and cons for forest policy pathways

Pathway	Main advantages	Main disadvantages
P1a low vertical integration	<ul style="list-style-type: none"> • Agreed guiding principles on forest issues • Stability and proven procedures, subsidiarity • Modes for enhanced cooperation 	<ul style="list-style-type: none"> • Decreasing forest sector influence and expertise • Little incentive for implementation • Little reactivity in cross-sectoral emergent issues
P1b high vertical integration	<ul style="list-style-type: none"> • More harmonised EU forest policy framework • More coordinated goals and targets on forests • More binding commitments on forests 	<ul style="list-style-type: none"> • Increased power and competence struggles • Unequal distribution of costs and benefits for countries • Common priorities for forests difficult to achieve
P2a low horizontal integration	<ul style="list-style-type: none"> • Building on existing competence of the sector • Responding to demands from within the sector • Sustainability as main selling argument 	<ul style="list-style-type: none"> • Limited awareness of the sector outside its boundaries • Lack of cross-sectoral data harmonisation and standards • Weak coordination and consensus with the sector
P2b high horizontal integration	<ul style="list-style-type: none"> • Actively addressing conflicting visions on forests • Comprehensive approach on ecosystem services and the diversified sector • Allow for cross-sectoral high ambition coalitions 	<ul style="list-style-type: none"> • Drivers and direction of integration unclear • Might lead to optimisation approaches of forest use with unequal consequences • Potentially leads to overregulation in the forest sector
P3a strong governmental steering	<ul style="list-style-type: none"> • Claims of legitimacy and representativeness backed by formal governmental processes • Compliance with rules, and standards regulated • Prioritisation of actions and responses by elected governments 	<ul style="list-style-type: none"> • Complex and wicked problems require multi-actor approach • Often ineffective use of public funding • Large, heterogeneous target groups difficult to reach
P3b co-governance	<ul style="list-style-type: none"> • Diverse non-state institutions and social movements may 'fast track' policy innovation • Close connection to actual societal trends • Public-private partnerships attractive for investors 	<ul style="list-style-type: none"> • Replacing democratically elected governance systems • Lack of democratic legitimacy, not necessarily consensus-driven cherry picking of partnerships • May favour high-capacity companies and/or fail to address companies that are deliberately non-compliant

7. Policy implications

Forests and forest-relevant policies in Europe are facing a wide array of challenges in a rapidly changing world. Many of the policies in place so far have been targeted towards 2020. While a final evaluation of their achievements is not yet available, a look into the future is essential. Not least because of Brexit, the new European Parliament, European Commission and the European Green Deal proposal presented in December 2019. During the writing of this report (spring 2020), the coronavirus (COVID-19) has paralyzed the world in a way that no event has done since WWII. The longer-term impacts of this shock are yet difficult to identify, but in this report's context it can be argued that it is likely to increase rather than decrease the uncertainties related to the European forest policy outlook.

In this rapidly changing landscape, the increasing complexity of forest governance is a challenge. Recent studies show that the low coherence of forest policymaking in the EU has continued in the past decade (Winkel and Sotirov 2016, Aggestam and Pülzl 2018, Pülzl et al. 2018, Sotirov and Storch 2018, Wolfslehner et al. 2019a). The policy integration concept is used to actively demonstrate that different policy pathways can lead either to weaker or stronger EU forest policy coordination. In this context, and based on the analysis of this report, the following policy implications are presented:

- **To increase EU forest policy coordination, the integration between EU and Member States (vertical integration) and of separate EU policy objectives (horizontal integration) has to be defined and developed.** Future interaction between public (government) and private initiatives forms a third mode. In practice, integration may take hybrid forms across the three levels, including forest agenda-setting, cooperation and coordination across different levels, sectoral and cross-sectoral coalitions as well as the provision of proper financial and human resourcing for targeted forest policy integration.
- **The forest sector should increase cross-sectoral policy initiatives and become a strategic player in addressing the role of forests and forest resources for the future EU society and economy.** It has to become proactive rather than reactive in addressing major EU policy goals, which often arise from global challenges and from outside the forest sector. This

would allow a more rapid and coordinated response to emerging issues, and help articulate national forest-related policy goals in the EU framework more clearly. It would require a common political vision, or at least an agreement on the main political priorities for forests and forest resources.

- **The major challenges for EU forest policymaking are linked to several policy domains, and will require new modes of cooperative forest governance and processes.** This may include new forms of dialogue, information exchange, and cross-sectoral initiatives including the discussion of synergies and trade-offs on an EU level. Existing forms of forest governance have shown limitations in moving towards better coordination and integration. To balance the major socio-economic and environmental demands on forests, while maintaining the competitiveness of the sector in an economy moving towards low carbon and renewable resources, it is also important that forest-related interests are integrated into other EU policy domains. This requires consistent and coordinated policy goals and targets on forests, and active handling of synergies and trade-offs.
- **Experiences from other policy domains show that policy integration is typically incremental and path-dependent.** Radical changes are often not successful and may in fact counteract ambitious goals for deeper integration. Attempts to strengthen cross-sectoral integration in these policy domains often remain largely symbolic, hence altering existing policy frameworks or even introducing new instruments and practices would require extraordinary political and/or external pressures.
- **The forest sector and its product markets differ from the heavily subsidised EU agricultural markets, and might require fewer resources for fostering policy integration.** However, the integration challenge is to support and boost non-market forest ecosystem services, such as biodiversity, climate mitigation, recreation services, etc. and to ensure ecosystem services provision without impeding the functioning of existing forest products markets. It is also important that new policies do not lead to the offsetting of EU climate and environmental goals in other regions, with sustainability leakages like carbon leakages, illegal logging and biodiversity loss.



- **A major divide as to whether forests should serve mainly environmental or economic forestry objectives was found in previous studies and confirmed by a new interview series** with representatives from Member States, stakeholders and EU-level administrators. While the results show largely well-known interest coalitions with regard to EU forest policy (e.g. conservation vs. commodity interests, forest-rich producer vs. forest-poor consumer states), new configurations also occur depending on the topic.
- **Defining joint topics on forests might be key to fostering forest policy integration.** Currently (in parallel with the Green Deal proposal), bioeconomy, climate change and biodiversity protection could serve as such. It will be important to demonstrate the realistic potential contribution of forests, and to further develop the concept of sustainable forest management as the major coherent and comprehensive element that forests and the forest-based sector can bring into different policy processes such as the Green Deal.
- **The European Green Deal puts the forest-based sector in a key position in climate change mitigation and biodiversity protection, and it is therefore important to trigger stronger forest policy integration and strengthen its implementation.** However, more resources for forest expertise in the European Commission services and national administrations will be needed to ensure that the integration of distinct forest demands can be properly addressed. The Green Deal proposal puts a strong focus on biodiversity conservation and the carbon storage function of forests, but hardly mentions (forest) bioeconomy at all. This has led to significant concerns regarding the need to also strengthen the transition to a **circular bioeconomy**, to advance EU policy objectives and sustainability in all dimensions. It is important to clarify how different forest-related policy objectives can be met, and to develop governance mechanisms that take into full account the entire set of ecosystem services that forests provide, including the global dimension.
- **The development of future forest policy in Europe post-2020 requires consistent policymaking on and across all levels of governance.** The way forests are dealt with on different levels (international, EU, national) requires better inter- and intra-governmental coordination (e.g. between forestry and nature authorities). Apart from global and EU processes, the future of the Forest Europe process and the developments around a Legally Binding Agreement are expected to influence how forestry topics will be shaped in Europe in the future. It is important to define what forest policy integration means along the different possible future pathways, and which elements of integration are potential priorities. The debate on the future of EU forests and what services are required from them has often been strongly ideological in the past. Using evidence-based information and seeking practical means to **maximise synergies and minimise trade-offs** between the different needs for forests would give a better basis for future forest policy development.

8. References

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Abbreviations:

CAP	Common Agricultural Policy
CBD	Convention on Biological Diversity
Cites	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CWPF	Council Working Party on Forestry
EfE	Environment for Europe
EIP-AGRI	European Innovation Partnership ‘Agricultural productivity and Sustainability’
EUTR	EU Timber Regulation
FLEGT Action Plan	EU Action Plan for Forest Law Enforcement, Governance and Trade
Forest MAP	Multi-annual implementation plan
FQD	Fuel Quality Directive
FSC	Forest Stewardship Council
GHG	Greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
ITTA	International Tropical Timber Agreement
ITTC	International Tropical Timber Council
ITTO	International Tropical Timber Organisation
IUCN	International Union for Conservation of Nature
LBA	Legally binding agreement
LEADER programme	Liaison entre actions de développement de l’économie rurale/Links between actions for the development of the rural economy
LULUCF	Land use, land-use change, and forestry
MCPFE	Ministerial Conference on the Protection of Forests in Europe
NDPs	National Development Plans
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
PEFC	Programme for the Endorsement of Forest Certification
PROBA	Working Party on Commodities
RED	Renewable Energy Directive
RED II	Renewable Energy Directive II
REDD+	Reducing Emissions from Deforestation and forest Degradation
SDGs	Sustainable Development Goals
SFC	Standing Forestry Committee
SFM	Sustainable Forest Management
TFEU	Treaty on the functioning of the European Union
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNWTO	United Nations World Tourism Organization
VPA	Voluntary Partnership Agreements
WFD	Water Framework Directive
WTA	World Trade Agreement

We are living in a time of accelerated changes and unprecedented global challenges: energy security, natural resource scarcity, biodiversity loss, fossil-resource dependence and climate change. Yet the challenges also demand new solutions and offer new opportunities. The cross-cutting nature of forests and the forest-based sector provides a strong basis to address these interconnected societal challenges, while supporting the development of a European circular bioeconomy.

The European Forest Institute is an unbiased, science-based international organisation that provides the best forest science knowledge and information for better informed policy making. EFI provides support for decision-takers, policy makers and institutions, bringing together cross-boundary scientific knowledge and expertise to strengthen science-policy dialogue.

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