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# Public Consultation on the new EU Framework for Forest Monitoring and Strategic Plans

Fields marked with * are mandatory.
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#### Introduction

#### Background

European forests are under increasing stress as a result of climate change and other human activities and pressures. The new <u>EU Forest Strategy for 2030</u> addresses these challenges and aims to unlock the potential of forests for our future.

Knowledge of forests' status and trends is crucial for targeted and effective responses. The many EU policies affecting forests require accurate and harmonised EU-wide forest information and a basis to exchange about short, medium and long-term visions of forests and the forest-based sector. Today, information is patchy on the status of forests in the EU, their social, ecological and economic value, as well as the pressures they face and ecosystem services they provide. Forest managers and policymakers rely on national forest inventories with varying designs and update cycles to access forest data. Only a few initiatives, such as the International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests) and the Land Use/Cover Area frame Survey (LUCAS), provide forest-related information across the EU. Effective policymaking is hindered by the limited information available and fragmented forest planning.

The Commission is consulting the public and other interested parties about the content of a new legislative proposal on an EU Framework for Forest Monitoring and Strategic Plans. This initiative aims to improve forest monitoring across the EU. In addition, and subject to an impact assessment, Member State competent authorities would prepare long-term strategic plans for forests and the forest-based sector, which would provide a comprehensive picture of the state, the evolution and the future developments of forests in the EU, as envisioned by Member States.

#### Guidance on the questionnaire

This public consultation aims at giving EU citizens, including stakeholders and experts, an opportunity to express their views on the upcoming legislative proposal for a new Framework for Forest Monitoring and Strategic Plans.

We want to hear your views on how to make the new framework as effective as possible. By replying to our EU Survey and sharing your views with us, you will help us to do so.

You are invited to respond to the following questions below regardless of your level of expertise.

The estimated time for completion of the general part is 10 minutes, followed by an optional section with a set of technical questions that should take another 10 minutes. At the end of the questionnaire you will be able to upload additional information.

All the responses to this consultation will be assessed and considered as a key input for the impact assessment of the upcoming legislative proposal. We will also produce a stand-alone summary of the results of the consultation.

Note: the questionnaire will generally refer to "forest information", which includes forest data collection and value added products (such as forest cover, forest health, the frequency of forest fires, etc.) that contribute to enhancing our knowledge about European forests.

Thank you for taking part in this consultation.

\*Language of my contribution

#### About you

	Bulgarian
0	Croatian
0	Czech
0	Danish
0	Dutch
0	English
0	Estonian
0	Finnish
	French
0	German
0	Greek
0	Hungarian
0	Irish
0	Italian
0	Latvian
0	Lithuanian
0	Maltese
0	Polish
0	Portuguese
0	Romanian
0	Slovak
0	Slovenian
0	Spanish
	Swedish

\*I am giving my contribution as

Business association
Company/business organisation
Consumer organisation
EU citizen
Environmental organisation
Non-EU citizen
Non-governmental organisation (NGO)
Public authority
Trade union
Other
l am
A forest owner (less than 5 hectares of forest)
A provider of forcet data
<ul> <li>A provider of forest data</li> <li>None of the above</li> </ul>
None of the above
*First name
Delphine
*Surname
Miramont
*Email (this won't be published)
delphine.miramont@earsc.org
*Organisation name
255 character(s) maximum
European Association of Remote Sensing Data (EARSC)
*Organisation size
Micro (1 to 9 employees)
Small (10 to 49 employees)
Medium (50 to 249 employees)

Academic/research institution

Large (250 or more)

### Transparency register number

255 character(s) maximum

Check if your organisation is on the transparency register. It's a voluntary database for organisations seeking to influence EU decision-making.

## \*Country of origin

Please add your country of origin, or that of your organisation.

This list does not represent the official position of the European institutions with regard to the legal status or policy

the	entities mentioned. It is a	a hai	rmonisation of often dive	raer	nt lists and practices.	o regar statue or porrey
	Afghanistan	0	Djibouti		Libya	Saint Martin
	Åland Islands		Dominica		Liechtenstein	Saint Pierre and
						Miquelon
	Albania		Dominican		Lithuania	Saint Vincent
			Republic			and the
						Grenadines
	Algeria		Ecuador		Luxembourg	Samoa
	American Samoa		Egypt		Macau	San Marino
	Andorra		El Salvador		Madagascar	São Tomé and
						Príncipe
	Angola		Equatorial Guinea	a 🔘	Malawi	Saudi Arabia
	Anguilla		Eritrea		Malaysia	Senegal
	Antarctica		Estonia		Maldives	Serbia
	Antigua and		Eswatini		Mali	Seychelles
	Barbuda					
	Argentina		Ethiopia		Malta	Sierra Leone
	Armenia		Falkland Islands		Marshall Islands	Singapore
	Aruba		Faroe Islands		Martinique	Sint Maarten
	Australia		Fiji		Mauritania	Slovakia
	Austria		Finland		Mauritius	Slovenia
	Azerbaijan		France		Mayotte	Solomon Islands
	Bahamas		French Guiana		Mexico	Somalia
	Bahrain		French Polynesia		Micronesia	South Africa
	Bangladesh				Moldova	

	French Souther and Antarctic Lands	'n	South Georgia and the South Sandwich Islands
Barbados	Gabon	Monaco	South Korea
Belarus	Georgia	Mongolia	South Sudan
Belgium	Germany	Montenegro	Spain
Belize	Ghana	Montserrat	Sri Lanka
Benin	Gibraltar	Morocco	Sudan
Bermuda	Greece	Mozambique	Suriname
Bhutan	Greenland	Myanmar/Burma	Svalbard and
			Jan Mayen
Bolivia	Grenada	Namibia	Sweden
Bonaire Saint	Guadeloupe	Nauru	Switzerland
Eustatius and			
Saba			
Bosnia and	Guam	Nepal	Syria
Herzegovina			O
Botswana	Guatemala	Netherlands	Taiwan
Bouvet Island	Guernsey	New Caledonia	Tajikistan
Brazil	Guinea	New Zealand	Tanzania
British Indian	Guinea-Bissau	Nicaragua	Thailand
Ocean Territory  British Virgin	Curono	Niger	The Gambia
Islands	Guyana	Niger	THE Gambia
Brunei	Haiti	Nigeria	Timor-Leste
Bulgaria	Heard Island a		Togo
- angan a	McDonald Islan		. ogo
Burkina Faso	Honduras	Norfolk Island	Tokelau
Burundi	Hong Kong	Northern	Tonga
		Mariana Islands	C
Cambodia	Hungary	North Korea	Trinidad and
			Tobago
Cameroon	Iceland	North Macedonia	a <sup>©</sup> Tunisia
Canada	India	Norway	Turkey
©	©	0	©

	Cape Verde		Indonesia		Oman		Turkmenistan
	Cayman Islands		Iran	0	Pakistan	0	Turks and
							Caicos Islands
	Central African		Iraq		Palau	0	Tuvalu
	Republic						
	Chad		Ireland	0	Palestine	0	Uganda
	Chile		Isle of Man	0	Panama	0	Ukraine
	China		Israel		Papua New	0	United Arab
					Guinea		Emirates
	Christmas Island		Italy	0	Paraguay	0	United Kingdom
	Clipperton		Jamaica	0	Peru	0	United States
	Cocos (Keeling)		Japan	0	Philippines	0	United States
	Islands						Minor Outlying
							Islands
	Colombia		Jersey	0	Pitcairn Islands	0	Uruguay
	Comoros		Jordan	0	Poland	0	US Virgin Islands
	Congo		Kazakhstan	0	Portugal	0	Uzbekistan
	Cook Islands		Kenya	0	Puerto Rico	0	Vanuatu
	Costa Rica		Kiribati	0	Qatar	0	Vatican City
	Côte d'Ivoire		Kosovo	0	Réunion	0	Venezuela
	Croatia		Kuwait	0	Romania	0	Vietnam
	Cuba		Kyrgyzstan	0	Russia	0	Wallis and
							Futuna
	Curaçao		Laos	0	Rwanda	0	Western Sahara
	Cyprus		Latvia	0	Saint Barthélemy		Yemen
	Czechia		Lebanon	0	Saint Helena	0	Zambia
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0	Democratic	0	Lesotho	0	Saint Kitts and	0	Zimbabwe
	Republic of the				Nevis		
	Congo						
	Denmark		Liberia	0	Saint Lucia		

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. Fo r the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its

transparency register number, are always published. Your e-mail address will never be published.

Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

#### \*Contribution publication privacy settings

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

## Anonymous

Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

#### Public

Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

I agree with the personal data protection provisions

#### Section A - Use of forest information

Do you consult fores	t information	for professional	purposes?
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- Yes
- O No

For which sector(s) or purpose(s) do you consult forest information?

- Forestry and wood production
- Other bioeconomy sectors
- Recreation and tourism
- Climate mitigation
- Climate adaptation
- Biodiversity
- Air quality
- Hydrology (e.g. water quality or quantity)

Soil science (quality, erosion, nutrients)
 Natural and cultural heritage
 Other non-wood products and services
 Education
 Spatial planning
 Other

#### If other, please specify

land use/ cover change

What sources do you consult for information on forests?

- Government publications and websites
- Publications by academics, such as from research centres, universities and research projects
- Private data providers, such as companies, business associations and individuals
- General and specialised media and news outlets
- Forest sector organisations and media
- Non-governmental organisations (NGO)
- Other

### If other, please specify

Copernicus data and services

## Section B - General questionnaire

#### Background: Forest Monitoring

Today there is only patchy information on the state of forests in the EU, their social and economic value, as well as the pressures they face and ecosystem services they provide. Since 2007, when the <u>Forest Focus Regulation</u> expired, there have been no comprehensive reporting requirements. In addition, there are challenges related to the use of remote sensing data (e.g. satellite imagery, airborne laser-scanning, etc.) together with ground-based data (i.e. lack of interoperability, common definitions, ambiguity in data interpretation, a lack of long and comparable very high resolution time-series, and limitations of the current standard forest products from <u>Copernicus</u>).

EU Member States have acknowledged the central role of forests and the forest-based bioeconomy in the EU's transition to a climate-neutral economy. However, monitoring and reporting mechanisms are scattered, and operate on different definitions, time scales and intervals across the EU Member States. The legislative proposal will establish an EU-wide integrated forest monitoring framework, ensuring /promoting the use of remote sensing technologies integrated with ground-based monitoring. It will consider

different options aimed at ensuring that the public has access to harmonised, timely and interoperable information with high spatial granularity on EU forests.

Forest information: To what extent do you agree with the following statements?

## We need EU-wide harmonised and timely information on...

	Agree	Somewhat agree	Somewhat disagree	Disagree	No opinion
forest health	•	0	0	0	0
forest disturbances (e.g. pests, wildfires)	•	0	0	0	0
climate change impacts on forests	•	0	0	0	0
climate change projections for forests	•	0	0	0	0
forest biodiversity	•	0	0	0	0
wood production	•	0	0	0	0
forest carbon stocks and flows	•	0	0	0	0
other forest ecosystem services	•	0	0	0	0
forest management	•	0	0	0	0
non-wood products and services, including recreation	•	0	0	0	0
Other	•	0	0	0	0

## If other, please specify

deforestation, degradation, forets ecosystem fragmentation	

Please indicate how important you consider the following possible improvements to forest monitoring in the EU.

	Very important	Important	Somewhat important	Not important	No opinion
More consistent and comparable forest information across borders	•	0	0	0	0
More frequent forest information, e.g. monthly or yearly instead of multi-annual data	•	0	0	0	0

More timely forest information, e.g. data will be available days after data collection instead of months or even after multiple years	•		•	0	0
Higher granularity of forest information, e.g. land parcel level, grid-cell, resolution	•	0	0	•	0
More accurate and trustworthy forest information, e.g., through the use of modern technology, common definitions and increased transparency	•	0	•	0	•
Better and easier access to forest information, e.g., data portals, search functions, APIs, one-stop shop	•	0	0	0	0
Better thematic data on forests e.g. more thematic data layers, less generalisation	•	0	0	•	0
Other	•	0	0	0	0

Achieving Europe's forest restoration goals will require multifaceted coordinated efforts throughout all EU member states. Measuring forest changes in a timely manner is a prerequisite for understanding forest policy effectiveness and driving progress towards the 2030 goals. Forest measurements through Earth Observation technology can provide objectivity and transparency. Without this transparency through more frequent data, the success of the EU forest legislation may not meet the expectations of its initiators because: "You cannot manage what you don't measure".

At the moment, EU and national policymakers have insufficient data to assess Europe's forests. Centralized information is only updated every 3 years, and often with a delay. Copernicus Sentinel data is an excellent starting point for deriving the necessary forest measurements. It can further be complemented by additional commercial sensors to provide actionable insights. The good news is that the data and service technology for providing the required transparency for addressing today's forest challenges across Europe is available today.

- -Increasing availability and enabling interactive access to public data on forest ecosystems at the national and EU level
- -Establishment and regular (frequent) updating of forest ecosystems databases on national level
- -Establishment of near-real-time systems for the monitoring of the spread of forest pests, invasive organisms and other types of disturbances

In your view, what are the main current challenges to ensuring EU-wide forest information that is detailed, accurate, regular, timely, comparable and openly accessible?

Use drag&drop or the up/down buttons to change the order or accept the initial order.

Insufficient uptake of information derived from remote sensing

iii	Limited comparability of data due to lack of standardised national forest inventories
<b>#</b>	Absence of a regulatory framework and standards
<b>#</b>	Data availability
<b>#</b>	Privacy or trade secret issues
<b>#</b>	Other

We need to use all available data, unfortunately organizations still do not use all the data which is available. Copernicus, the EU's Earth Observation programme, is a crucial component needed to achieve the goals of the EU Forest Strategy. However, Copernicus Sentinel data alone will not be sufficient for deriving the necessary forest measurements. Complementary so-called Copernicus Contributing Missions composed i.e, of commercial Earth Observation missions, designed to be interoperable with Copernicus datasets, have a crucial role to play in enhancing what Copernicus can provide. Contributing with frequently refreshed (up to daily in certain specific contexts), global, highly detailed (up to sub-meter per pixel) data, commercial satellite imagery can offer the necessary additional spatial and temporal resolutions to allow EU policymakers and Member States' authorities to gain common insights over the EU's forests.

The accessibility of forest information can vary: it can be paid, free, shared in aggregated form (e.g. only national averages), with certain information obfuscated (e.g. hiding exact geographic coordinates), in difficult to use data formats or be available only on demand. In your view, is better access to forest information needed?

0	Yes.	whenever	possible	with o	pen a	access	to full	data
	100,	WITCHEVE	possible	WILLI O	יווסטן	10003	to iuii	uai

- Yes, whenever possible with open access to aggregated data
- Yes, but only under specific conditions (Please specify)
- O No
- No opinion

Monitoring technologies: To what extent do you agree with the following statements?

	Agree	Somewhat agree	Somewhat disagree	Disagree	No opinion
Monitoring systems should mainly build on field observations	0	0	•	0	0
Where applicable, monitoring systems should mainly build on remote-sensing technologies	0	•	0	0	0

Monitoring systems should integrate both field data and remote-sensing	•	©	©	©	0
Monitoring systems should make use of the most cost-efficient technologies	•	0	0	0	0
Other	•	0	0	0	0

Relying on either earth observation or field-data in isolation is not the ideal way to proceed. The integration of the two types of data brings huge advantages, to the precision of observations as well a reduction in the cost and time of field data collection.

## Policy options: To what extent do you agree with the following policy options?

	Agree	Somewhat agree	Somewhat disagree	Disagree	No opinion
Member States should continue current monitoring systems (business-as-usual)	0	0	0	0	0
Data from Member States' monitoring systems should be better integrated, but with little change to monitoring methods	0	0	0	0	0
Data from Member States' monitoring systems should be better integrated, and the EU should coordinate the use of standardised forest monitoring methods implemented by Member States	•	•	•	•	•
The EU should operate a single monitoring system	0	0	0	0	0
Other	0	0	0	0	0

What are the main benefits from creating an EU-wide forest monitoring system with detailed, accurate, regular, timely, comparable and openly accessible information?

Use drag&drop or the up/down buttons to change the order or accept the initial order.

	-9-1
:	Better forest management and forest planning
<b>#</b>	Better preparedness to prevent and respond to natural disturbances (e.g. forest fires, storm damages, floods, pests, geological hazards), including coordination across borders
<b>#</b>	More effective policy making
<b>#</b>	Better control of illegal logging
<b>#</b>	Better scientific knowledge (e.g. on forest health, climate adaptation, etc.)

	:: More transparent markets for forest products (e.g. on management practices, carbon certification, etc.)													
	Savings from the use of remote-se	nsing technolo	gies and econor	mies of scale										
	ii Diversification of forest ecosystem	services												
	More sustainable use of forests for	the bioeconon	ny											
Uther Other														
lf o	other, please specify													
Po	olicy options: To what extent de	o you agree	e with the fo											
				ollowing poli	cy options	?								
		Agree	Somewhat agree	Somewhat disagree	Cy options  Disagree	No opinion								
	Financing should be provided only through existing EU financial programmes, e.g., Copernicus, Horizo Europe		Somewhat	Somewhat		No								
	through existing EU financial programmes, e.g., Copernicus, Horizo		Somewhat	Somewhat disagree		No								

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#### Background: Forest Strategic Plans

through resources from relevant private

Financing should be provided through a

combination of Member State, private

sectors

Other

and EU resources

Forests serve overlapping, sometimes also competing, economic, environmental and social demands that may change over time. In parallel, forests are changing because of other pressures such as climate change. Existing Member State plans (e.g., the National Energy and Climate Plans, Strategic Plans for the Common Agricultural Policy or forthcoming Nature Restoration Plans) already address forests and the forest-based sector but in a limited way. Few Member States have developed strategic documents for forests with a planning horizon beyond 10-years. So far there is no system to assess e.g., multiple demands on forests, facilitate policy integration and consistency or ensure needed adjustments of forests and the forest-based sector to a changing climate.

The Commission is considering legally requiring Member States or, as applicable, regional authorities to prepare Strategic Plans for forests. These would lay out the strategic vision of Member States for their forests and the forest-based sector for the next several decades. The plans would not be subject to approval by the Commission but could contain common elements and a general structure to allow for comparability, exchange and coordination among Member States. They could thus provide a comprehensive picture of the state and the evolution of forests in the EU, as envisioned by Member States.

#### How well do you know the following strategies and planning tools?

	I don't know them	I have heard of them	I know them	I use them or work with them
National or regional forest programs, plans or strategies	0	0	0	•
National Energy and Climate Plans	0	0	•	©
Strategic Plans for the Common Agriculture Policy	0	0	0	•
National or regional Climate Adaptation Strategies	0	•	0	0
National Forestry Accounting Plans	0	0	•	0
Long-term Strategies for the climate	0	0	•	0
National Forest Risk Assessment Plans	0	•	0	0
National/regional forest management plans	0	0	0	•
Disaster-risk reduction strategies /documents	0	•	0	0
Prioritised Action Frameworks	0	•	0	©
National Biodiversity Strategies	0	0	•	©
National Ecosystem Assessments	0	•	0	0
Management plans of Natura 2000 sites	0	0	0	•
National Bioeconomy Action Plans	0	•	0	0
National reports to Forest Europe	0	0	•	0
Other key document	0	0	0	0

In your view, what could be the added value of Strategic Plans for Forests?

- Better disaster assessment and preparedness
- Better policy design
- Better policy coherence

<b>V</b>	Better management of forest use and future forest demand
1	Providing a holistic view on forest status and trends
1	Overall coordination of long-term forest planning
1	Comparability and exchange with other Member States
	None
	Other

## Do you agree that Strategic Plans for forest should tackle/cover the following issues?

	Agree	Somewhat agree	Somewhat disagree	Disagree	No opinion
Policy integration and consistency, e.g., common entry point, single strategy or planning document integrating all policies addressing forests; coherence with other planning documents	•	•	•	•	0
Policy planning on, e.g., biomass provision for the bioeconomy and bioenergy, carbon storage, habitat protection, biodiversity restoration, clean water and air, recreation, social space	•	•	•	•	•
Policy monitoring, e.g., coherence in forest monitoring, policy design and control based on monitoring	•	0	0	0	0
Forest disturbance/disaster prevention and preparedness, e.g., current and future risk assessment, climate-related risk management	•	0	0	0	•
Changes in forest management, e.g., future silvicultural management, ecosystem resilience; biodiversity; non-wood resources; needs for peri-urban forests; impacts on forest-based sector	•	©	©	0	0
Other	0	0	0	0	0

In your view, which will be the main stakeholder groups benefitting from an EU framework for forest monitoring and strategic plans?

	drag&dr							

<b>#</b>	Government organisations
III	Research

	#	Private forest owners
	<b>#</b>	Non-governmental organisations (NGO)
	<b>#</b>	Businesses and business associations
	<b>#</b>	International protocols, networks
	#	General public
	iii iii	Nobody
An	y fu	rther important aspects which should be considered for forest strategic plans?
An	y fu	rther comments you would like to share?
Se	ectic	on C - Specialist questionnaire

## In your view, how important is it to monitor the following forest indicators?

	Very important	Important	Somewhat important	Not important	No opinion
Forest/tree cover	•	0	0	0	0
Forest biomass	•	0	0	0	0
Canopy height	0	0	0	0	0
Forest carbon (as far as possible separated among carbon pools)	•	0	0	0	0
Forest foliage/phenology/anomalies	•	0	0	0	0
Tree age	0	0	•	0	0
Tree species/composition	•	0	0	0	0
Deadwood (volume, type, diversity)	•	0	0	0	0
Forest soil properties (carbon, compaction, soil biodiversity)	•	0	0	0	0
Presence of red-listed species	0	•	0	0	0
Abundance of common forest birds	0	0	•	0	0
Forest fires (number, area and volume burnt, etc.)	•	0	0	0	0
Storms (number, area and volume affected, etc.)	0	0	•	0	0
Pest and disease outbreaks (number, area and volume affected, type of pest or disease, etc.)	•	0	0	0	0
Other forest disturbances	•	0	0	0	0
Forest/tree cover change (gains, losses)	•	0	0	0	0
Forest connectivity/fragmentation	•	0	0	0	0

Tree health	•	0	0	0	0
Forest growth	•	0	0	0	0
Tree age diversity	0	•	0	0	0
Tree species diversity	0	0	0	0	0
Silvicultural system	0	0	0	0	0
Main management objectives (production, conservation, protection)	0	•	0	0	0
Forest type	0	0	0	0	0
Areas of primary and old-growth forests	0	0	0	0	0
Forest ancientness (length of time without land-use change)	0	0	0	0	0
Forest structural diversity	0	0	•	0	0
Diversity and share of forest habitats	0	•	0	0	0
Volume of wood harvested	0	0	•	0	0
Forest areas covered by a management plan	•	0	0	0	0
Forest areas with independent certification	0	•	0	0	0
Ratio of annual fellings to annual increment	•	0	0	0	0
Forest revenues (timber and non-timber)	•	0	0	0	0
Price of wood and wood products	•	0	0	0	0
Employment in the forest sector	0	0	0	0	0
Frequency of forest visits	0	0	0	0	0
Other	•	0	0	0	0

biodiversity, land use change
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## To rate the monitoring of several forest indicators in the following question, please choose a country whose indicators you would like to rate

Please add your country of origin, or that of your organisation.

of the entities mentioned. It is a Afghanistan	a na	rmonisation of often dive Djibouti	rger	t lists and practices.  Libya	0	Saint Martin
Aland Islands	0	Dominica	0	Liechtenstein	0	Saint Pierre and
						Miquelon
Albania		Dominican	0	Lithuania		Saint Vincent
		Republic				and the
						Grenadines
Algeria		Ecuador		Luxembourg		Samoa
American Samoa		Egypt		Macau		San Marino
Andorra		El Salvador		Madagascar		São Tomé and
						Príncipe
Angola		Equatorial Guinea	a <sup>©</sup>	Malawi		Saudi Arabia
Anguilla		Eritrea		Malaysia		Senegal
Antarctica		Estonia		Maldives		Serbia
Antigua and		Eswatini		Mali		Seychelles
Barbuda						
Argentina		Ethiopia		Malta		Sierra Leone
Armenia		Falkland Islands		Marshall Islands		Singapore
Aruba		Faroe Islands		Martinique		Sint Maarten
Australia		Fiji		Mauritania		Slovakia
Austria		Finland		Mauritius		Slovenia
Azerbaijan		France		Mayotte		Solomon Islands
Bahamas		French Guiana		Mexico		Somalia
Bahrain		French Polynesia	0	Micronesia		South Africa
Bangladesh		French Southern		Moldova		South Georgia
		and Antarctic				and the South
		Lands				Sandwich

Islands

<ul><li>Barbados</li><li>Belarus</li><li>Belgium</li><li>Belize</li><li>Benin</li><li>Bermuda</li><li>Bhutan</li></ul>	Gabon Georgia Germany Ghana Gibraltar Greece Greenland	<ul> <li>Monaco</li> <li>Mongolia</li> <li>Montenegro</li> <li>Montserrat</li> <li>Morocco</li> <li>Mozambique</li> <li>Myanmar/Burma</li> </ul>	South Korea South Sudan Spain Sri Lanka Sudan Suriname Svalbard and Jan Mayen
<ul><li>Bolivia</li><li>Bonaire Saint</li><li>Eustatius and</li><li>Saba</li></ul>	Grenada Guadeloupe	<ul><li>Namibia</li><li>Nauru</li></ul>	<ul><li>Sweden</li><li>Switzerland</li></ul>
Bosnia and Herzegovina	Guam	Nepal	Syria
Botswana	Guatemala	Netherlands	Taiwan
Bouvet Island	Guernsey	New Caledonia	Tajikistan
Brazil	Guinea	New Zealand	Tanzania
British Indian	Guinea-Bissau	Nicaragua	Thailand
Ocean Territory			
<ul><li>British Virgin</li><li>Islands</li></ul>	Guyana	Niger	The Gambia
Brunei	Haiti	Nigeria	Timor-Leste
Bulgaria	Heard Island and		Togo
G	McDonald Island	ls	<b>G</b>
Burkina Faso	Honduras	Norfolk Island	Tokelau
Burundi	Hong Kong	Northern	Tonga
		Mariana Islands	
Cambodia	Hungary	North Korea	Trinidad and
			Tobago
Cameroon	celand	North Macedonia	a <sup>©</sup> Tunisia
Canada	India	Norway	Turkey
Cape Verde	Indonesia	Oman	Turkmenistan
Cayman Islands	Iran	Pakistan	Turks and
0	Iraq	Palau	Caicos Islands  Tuvalu
	•		

	Central African					
	Republic					
0	Chad	Ireland	0	Palestine		Uganda
	Chile	Isle of Man		Panama	0	Ukraine
	China	Israel		Papua New		United Arab
				Guinea		Emirates
	Christmas Island	Italy		Paraguay		United Kingdom
	Clipperton	Jamaica		Peru		United States
0	Cocos (Keeling)	Japan		Philippines	0	United States
	Islands					Minor Outlying
						Islands
	Colombia	Jersey		Pitcairn Islands		Uruguay
	Comoros	Jordan		Poland		US Virgin Islands
	Congo	Kazakhstan		Portugal	0	Uzbekistan
	Cook Islands	Kenya	0	Puerto Rico	0	Vanuatu
	Costa Rica	Kiribati	0	Qatar	0	Vatican City
0	Côte d'Ivoire	Kosovo		Réunion	0	Venezuela
0	Croatia	Kuwait		Romania	0	Vietnam
0	Cuba	Kyrgyzstan		Russia	0	Wallis and
						Futuna
	Curaçao	Laos		Rwanda	0	Western Sahara
	Cyprus	Latvia		Saint Barthélemy	0	Yemen
0	Czechia	Lebanon		Saint Helena	0	Zambia
				Ascension and		
				Tristan da Cunha		
	Democratic	Lesotho		Saint Kitts and		Zimbabwe
	Republic of the			Nevis		
	Congo					
	Denmark	Liberia		Saint Lucia		

How would you rate the monitoring of the following forest indicator currently monitored in the chosen country?

	Excellent	Good	Fair	Deficient	No opinion
Forest/tree cover	0	0	0	0	0
Forest biomass	0	0	0	0	0

Canopy height	0	0	0	0	0
Forest carbon (as far as possible separated among carbon pools)	0	0	0	0	0
Forest foliage/phenology/anomalies	0	0	0	0	0
Tree age	0	0	0	0	0
Tree species/composition	0	0	0	0	0
Deadwood (volume, type, diversity)	0	0	0	0	0
Forest soil properties (carbon, compaction, soil biodiversity)	0	0	0	0	0
Presence of red-listed species	0	0	0	0	0
Abundance of common forest birds	0	0	0	0	0
Forest fires (number, area and volume burnt, etc.)	0	0	0	0	0
Storms (number, area and volume affected, etc.)	0	0	0	0	0
Pest and disease outbreaks (number, area and volume affected, type of pest or disease, etc.)	0	0	0	0	0
Other forest disturbances	0	0	0	0	0
Forest/tree cover change (gains, losses)	0	0	0	0	0
Forest connectivity/fragmentation	0	0	0	0	0
Tree health	0	0	0	0	0
Forest growth	0	0	0	0	0
Tree age diversity	0	0	0	0	0
Tree species diversity	0	0	0	0	0
Silvicultural system	0	0	0	0	0
Main management objectives (production, conservation, protection)	0	0	0	0	0
Forest type	0	0	0	0	0
Areas of primary and old-growth forests	0	0	0	0	0
Forest ancientness (length of time without land-use change)	0	0	0	0	0
Forest structural diversity	0	0	0	0	0
Diversity and share of forest habitats	0	0	0	0	0
Volume of wood harvested	0	0	0	0	0
Forest areas covered by a management plan	0	0	0	0	0

Forest areas with independent certification	©	0	0	0	©
Ratio of annual fellings to annual increment	©	0	0	0	0
Forest revenues (timber and non-timber)	©	0	0	0	0
Price of wood and wood products	©	0	0	0	0
Employment in the forest sector	©	0	0	0	0
Frequency of forest visits	©	0	0	0	0
Other	©	0	0	0	0

What do you see as technical challenges for an improved forest monitoring in the EU?

#### Ground or in situ data...

	Major challenge	Minor challenge	Not a challenge	No opinion
availability	•	0	0	0
access	•	0	0	0
collection frequency	0	•	0	0
spatial sampling density	0	0	•	0
sampling design	0	0	•	0
Other	0	0	0	0

## Remote-sensing data...

	Major challenge	Minor challenge	Not a challenge	No opinion
availability	•	0	0	0
access	•	0	0	0
collection frequency	0	0	•	0
spatial resolution	0	0	•	0
comprehensiveness	0	0	•	0
integration with ground or in situ data	0	•	0	0
Other	0	0	0	0

## Contact

Raphael.LELOUVIER@ec.europa.eu