

QUESTIONNAIRE ON POPLARS AND OTHER FAST-GROWING TREES SUSTAINING PEOPLE AND THE ENVIRONMENT 2016 - 2019

INTRODUCTION

The questionnaire on poplars and willows is designed to complement the Country Reports for the 26th Session of the International Commission on Poplars and Other Fast-Growing Trees Sustaining People and the Environment (IPC) in 2020.

Response to the questionnaire is crucial for FAO to allow country, regional and global analyses of status and trends in forest sector development and to assist in improving formulation of policies, preparing outlook studies and undertaking planning, management, monitoring and reporting.

The questionnaire has four questions. In the case that detailed primary data is not available, aggregated statistics and best professional estimates are appreciated.

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Terms and definitions

The main FAO categories of land with a tree component are classified as¹:

<p>Naturally regenerating forest</p>	<p>Forest predominantly composed of trees established through natural regeneration</p> <p><i>Explanatory notes</i></p> <ol style="list-style-type: none"> 1. Includes forests for which it is not possible to distinguish whether planted or naturally regenerated. 2. Includes forests with a mix of naturally regenerated native tree species and planted/seeded trees, and where the naturally regenerated trees are expected to constitute the major part of the growing stock at stand maturity. 3. Includes coppice from trees originally established through natural regeneration. 4. Includes naturally regenerated trees of introduced species.
<p>Planted forest</p>	<p>Forest predominantly composed of trees established through planting and/or deliberate seeding.</p> <p><i>Explanatory notes</i></p> <ol style="list-style-type: none"> 1. In this context, predominantly means that the planted/seeded trees are expected to constitute more than 50 percent of the growing stock at maturity. 2. Includes coppice from trees that were originally planted or seeded.
<p>Plantation forest</p>	<p>Planted Forest that is intensively managed and meet all the following criteria at planting and stand maturity: one or two species, even age class, and regular spacing.</p> <p><i>Explanatory notes</i></p> <ol style="list-style-type: none"> 1. Specifically includes: short rotation plantation for wood, fibre and energy. 2. Specifically excludes: forest planted for protection or ecosystem restoration. 3. Specifically excludes: Forest established through planting or seeding which at stand maturity resembles or will resemble naturally regenerating forest.
<p>Agroforestry</p>	<p>“Other land with tree cover” with temporary agricultural crops and/or pastures/animals.</p> <p><i>Explanatory notes</i></p> <ol style="list-style-type: none"> 1. Includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met. 2. Includes agrisilvicultural, silvopastoral and agrosilvopastoral systems.
<p>Trees in urban settings</p>	<p>“Other land with tree cover” such as: urban parks, alleys and gardens</p>
<p>Forest</p>	<p>Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.</p> <p><i>Explanatory notes</i></p> <ol style="list-style-type: none"> 1. Forest is determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5 meters in situ. 2. Includes areas with young trees that have not yet reached but which are expected to reach a canopy cover of 10 percent and tree height of 5 meters. It also includes areas that are temporarily unstocked due to clear-cutting as part of a forest management practice or natural disasters, and which are expected to be regenerated within 5 years. Local conditions may, in exceptional cases, justify that a longer time frame is used.

¹ See the Global Forest Resources Assessment 2020 Terms and Definitions, <http://www.fao.org/3/I8661EN/i8661en.pdf>

	<ol style="list-style-type: none"> 3. Includes forest roads, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of specific environmental, scientific, historical, cultural or spiritual interest. 4. Includes windbreaks, shelterbelts and corridors of trees with an area of more than 0.5 hectares and width of more than 20 meters. 5. Includes abandoned shifting cultivation land with a regeneration of trees that have, or are expected to reach, a canopy cover of 10 percent and tree height of 5 meters. 6. Includes areas with mangroves in tidal zones, regardless whether this area is classified as land area or not. 7. Includes rubber-wood, cork oak and Christmas tree plantations. 8. Includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met. 9. Includes areas outside the legally designated forest land which meet the definition of “forest”. 10. Excludes tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems when crops are grown under tree cover. Note: Some agroforestry systems such as the “Taungya” system where crops are grown only during the first years of the forest rotation should be classified as forest.
<p>Other land with tree cover</p>	<p>Land classified as “other land”, spanning more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 meters at maturity.</p> <p><i>Explanatory notes</i></p> <ol style="list-style-type: none"> 1. Land use is the key criteria for distinguishing between forest and other land with tree cover. 2. Specifically includes: palms (oil, coconut, dates, etc), tree orchards (fruit, nuts, olive, etc), agroforestry and trees in urban settings. 3. Includes groups of trees and scattered trees (e.g trees outside forest) in agricultural landscapes, parks, gardens and around buildings, provided that area, height and canopy cover criteria are met. 4. Includes tree stands in agricultural production systems, such as fruit tree plantations/orchards. In these cases the height threshold can be lower than 5 meters. 5. Includes agroforestry systems when crops are grown under tree cover and tree plantations established mainly for other purposes than wood, such as oil palm plantations. 6. The different sub-categories of “other land with tree cover” are exclusive and area reported under one subcategory should not be reported for any other sub-categories. 7. Excludes scattered trees with a canopy cover less than 10 percent, small groups of trees covering less than 0.5 hectares and tree lines less than 20 meters wide.

Question 1: Total area 2019, and area planted from 2016 to 2019 (area change over the last 4 years)

In the following table please indicate for the year 2019 the area (ha) of poplars and willows, the forest area allocated to forest functions (%) and the area planted from 2016 to 2019 (4 years). For other fast-growing species (OFGS)², please list the most important species or genera for your commission, adding as many additional lines to the table as is appropriate.

² IPC-Convention (2019)

Article III - Functions

The functions of the Commission shall be:

a) to study and engage on scientific, technical, social, economic and environmental aspects of **Populus and other fast-growing trees. In addition to the Commission's work on the genus Populus, the Commission's subgroups may work on other genera that sustain people and the environment.** Priorities of the Commission's work are forest resources production, protection, conservation and utilization, with a view to sustaining livelihoods, land uses, rural development and the environment. This work includes food security issues, climate change and carbon sinks, biodiversity conservation and resilience against biotic and abiotic threats, and combating deforestation.

Remarks:

- 1) The total area of the naturally regenerating forest category (indigenous forest) is calculated on the basis of the forest stands where growing stock of the analyzed tree species is equal or higher than 1 m³ (The Forest Information System of the Slovenia Forest Service. Data for 2019).
- 2) Production area is divided according to the wood removals structure. Production area in forest category Naturally Regenerating Forest (indigenous forest) is not managed for separated production functions. Plantations are generally productions plantations for industrial roundwood (e.s. sawn logs, veneer logs). Reported structure is done according to the wood removal structures.

Question 2: Wood removals in 2019

Table 2 Wood removals

Forest category and species, cultivar or clone		Wood removals 2019 in m ³				
		Total removals	for industrial round wood			for fuelwood, wood chips
			Veneer/plywood	Pulpwood	Sawnwood	
Naturally regenerating forest						
	Poplars					
<i>Populus alba, Populus nigra</i>		2560	0	0	1024	1536
<i>Populus tremula</i>		9349	0	0	0	9349
<i>Salix</i> sp.	Willows	3313	0	0	0	3313
<i>Populus nigra</i> & <i>Populus alba</i> & <i>Salix</i> sp.	Mix of P&W	0	0	0	0	0
	OFGS*					
<i>Robinia pseudacacia</i>		3003	0	0	600	2403
Planted forest						
	Poplars	0	0	0	0	0
	Willows	0	0	0	0	0
	Mix of P&W	0	0	0	0	0
	OFGS*					
<i>Robina pseudoacacia</i>		300	0	0	30	270
Plantation forest						
<i>Populus x canadensis</i>	Poplars	2100	0	630	210	1260
<i>Salix</i> ssp. (cl. Inger, cl. Tordis)	Willows	N/A	0	0	0	N/A
	Mix of P&W	0	0	0	0	0
	OFGS*					
<i>Juglans nigra</i>		55	0	0	30	25
Other Land with Tree Cover						

Agroforestry						
	Poplars	0	0	0	0	0
	Willows	0	0	0	0	0
	Mix of P&W	0	0	0	0	0
	OFGS*					
		N/A	N/A	N/A	N/A	N/A
	Grand Total	20680	0	630	1894	18156

* OFGS: Other fast-growing species; please list the most important species for your commission, adding as many additional lines to the table as is appropriate (e.g. under OFGS, add tectona spp.).

Remarks:

- 1) Data on the total removals in the Table 2 (Wood removals in 2019) are based on the data on the amount of felling (m³), collected by the Slovenia Forest Service.
- 2) Slovenia does not collect data on the roundwood production on the level of tree species (but only on the level of coniferous/non-coniferous trees). Therefore, data on the industrial use of wood are based on expert assessment.

Question 3: Forest products in 2019

Please list by forest category the products that have been produced from poplars and other fast growing species in 2019. Please use **roundwood equivalents (1000 m³ r) as measuring unit**. The general conversion factors for each single product are given below (in case in your country specific conversion factors are not available):

Product	Measuring unit of the product	Conversion factor to roundwood equivalents
Fuelwood	metric tonnes or m ³ stacked wood	1 metric tonne = 4 m ³ (r) 1 m ³ stacked wood = 1.8 m ³ (r)
Chips	metric tonnes	1 metric tonne = 1.7 m ³ (r)
Mechanical woodpulp Chemical woodpulp	metric tonnes	1 tonne mech. pulp = 2.5 m ³ (r) 1 tonne chem. pulp = 4.5 m ³ (r)
Particleboard Fibreboard (hardboard, MDF)	m ³ of the product	1 m ³ particleboard = 1.4 m ³ (r) 1 m ³ fibreboard = 2.0 m ³ (r)
Veneer sheets	m ³ of the product	1 m ³ = 1.9 m ³ (r)
Plywood	m ³ of the product	1 m ³ = 2.5 m ³ (r)
Sawn timber	m ³ of the product	1 m ³ = 1.8 m ³ (r)

Table 3 Forest products in roundwood equivalents (1000 m³ r)

Forest category	Fuelwood	Chips	Industrial roundwood (logs, pulpwood)	Wood-pulp (mech. or chem.)	Particleboard fibreboard (MDF, hardboard)	Veneer sheets	Plywood	Sawnwood	
'000 m³ (r)									
Naturally regenerating forest									
	Poplars								
	P.alba	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	P.nigra	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	P.tremula	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Willows								
	Mix of P&W	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	OFGS*								
Planted									
	Poplars								
	Willows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Mix of P&W	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	OFGS*								
Agroforestry									
	Poplars								
	Willows	0	0	0	0	0	0	0	0
	Mix of P&W	0	0	0	0	0	0	0	0
	OFGS*								
	Grand Total	-	-	-	-	-	-	-	-

* Other fast-growing species; please list the most important species for your commission, adding as many additional lines to the table as is appropriate (e.g. under OFGS, add tectona spp.)

Question 4: Please reflect on the prevailing trends until 2030 in the development of poplars and other fast-growing trees in your country

What is your opinion on the following issues?

Please put a cross (X) in the column you think most appropriate

Table 4 Prevailing trends

	increase	decrease	remain as it is	no comment
1a. The conversion of naturally regenerating forests of poplar to other land uses will...			X	
1b. The conversion of naturally regenerating forests of willow to other land uses will...			X	

1c. The conversion of naturally regenerating forests of other fast growing species to other land uses will...			X	
2a. The conversion of planted forests of poplar to other land uses will...			X	
2b. The conversion of planted forests of willow to other land uses will...			X	
2c. The conversion of planted forests of other fast growing species to other land uses will...			X	
3a. The area of poplars for bioenergy plantations will			X	
3b. The area of willows for bioenergy plantations will			X	
3c. The area of other fast growing trees for bioenergy plantations will			X	
4a. Government investments in poplars will ...	X			
4b. Government investments in willows will ...	X			
4c. Government investments in other fast growing trees will ...			X	
5a. Private sector investments in poplars will ...	X			
5b. Private sector investments in willows will ...	X		X	
5c. Private sector investments in other fast growing trees will ...			X	
6a. The significance of poplars for productive purposes will ...			X	
6b. The significance of willows for productive purposes will ...			X	
6c. The significance of other fast-growing species for productive purposes will ...			X	
7a. The significance of poplars for environmental protection purposes will ...	X			
7b. The significance of willows for environmental protection purposes will ...	X			
7c. The significance of other fast-growing species for environmental protection purposes will ...			X	
8a. The rejection by environmental groups of poplars will...	X			
8b. The rejection by environmental groups of willows will...			X	

8c. The rejection by environmental groups of other fast growing trees will...			X	
9a. The acceptance by the general public of poplars as important natural resources will.....	X			
9b. The acceptance by the general public of willows as important natural resources will.....	X			
9c. The acceptance by the general public of other fast growing trees as important natural resources will.....	X			

---END OF QUESTIONNAIRE---