

# Defining, mapping and protecting primary and old-growth forests in Lithuania

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# Brief statistics of Lithuanian forests

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Country area		- <b>6.53 mill. ha</b>
Country population		- <b>2.89 mill.</b>
Forest land area		- <b>2.21 mill. ha</b>
Forest coverage		- <b>33.9%</b>
Forest area/capita		- <b>0.76 ha</b>
Growing stock	<i>total</i>	- <b>581 mill. m<sup>3</sup></b>
volume:	<i>average</i>	- <b>269 m<sup>3</sup>/ha</b>
Annual increment (gross)		- <b>19.6 mill m<sup>3</sup></b>
Mature stands	<i>area</i>	- <b>470 000 ha</b>
(for wood supply):	<i>volume</i>	- <b>169 mill. m<sup>3</sup></b>
		<b>360 m<sup>3</sup>/ha</b>
Annual harvest (stem volume)		- <b>10.5 mill. m<sup>3</sup></b>
Annually dead trees		- <b>4.6 mill. m<sup>3</sup></b>

# Forest ownership

## Forests of state importance

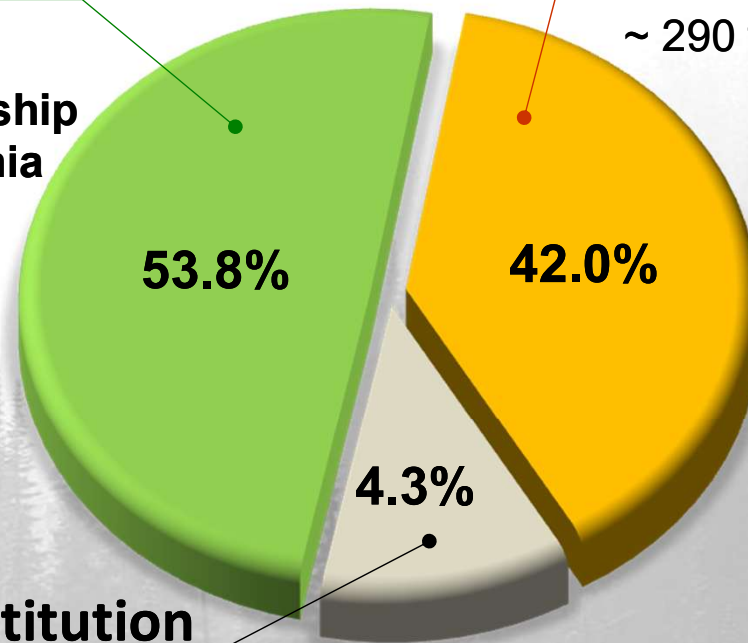
**1 188 000 ha**  
**in exclusive ownership**  
**of Republic Lithuania**

## Private forests

**928 000 ha**  
**~ 250 thousand owners**  
**~ 290 thousand parcels**

## State forests reserved for restitution

**94 000 ha**  
**partial management only**



Data and Design: **State Forest Service**



# Forest management regimes

## forest groups

— Strict reserves forests



—

= Forests of special purpose



=

≡ Protective forests



≡

Commercial forests

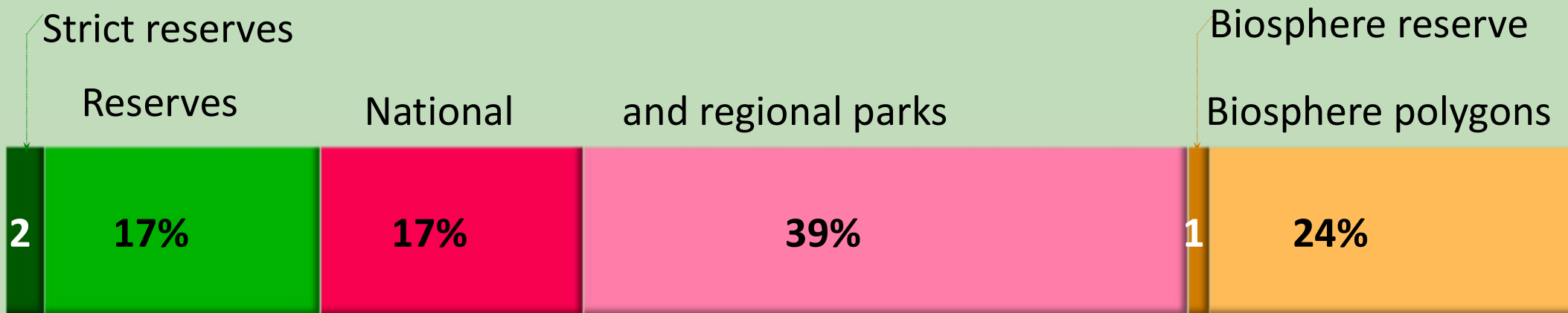


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# Forests and protected areas



- Protected areas cover **18.1%** (1183.7 thou. ha) of the country.
- ~ **30%** of forests are in protected areas.
- > **60%** of Natura 2000 network area is in the forest land.
- Almost all protected areas are designated to „Natura 2000“ network.





# Defining



**No approved definition yet.**

The draft amendment to the Forest Law, 2024:

**Primary forest** - is a naturally regenerated forest of local tree species, in which there are no clearly visible signs of human activity and ecological processes have not been disturbed.

**Old growth forest** – a multi-aged forest of local tree species, most of which trees have reached natural maturity and formed naturally, usually in late stages of development in one type of primary forest. Signs of past human activity may be visible, but they are slowly disappearing or are not too significant to disturb natural processes.

## Mapping (WKH, 2002-2005)



### Woodland Key Habitats (2002-2005)

The setting of the WKH network in Lithuania started in 2001 and involved a pilot study to develop field assessment methodology and a classification system adapted to Lithuania's environmental conditions.

The first WKH inventory in all country's forests, regardless of ownership and protection status, was completed in 2005.

More than **8.9 thousand** localities of forest habitats were mapped, covering area of **~26.4 thousand Ha**.

# Mapping (WKH, 2013-2017)

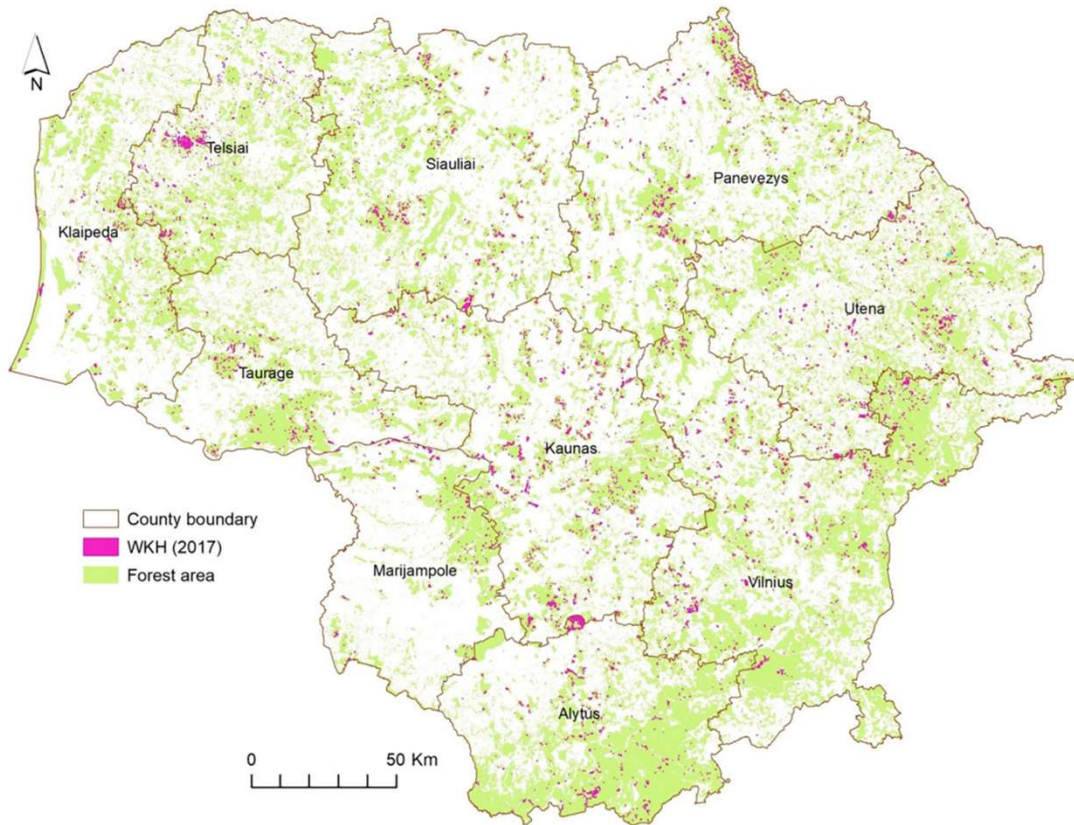


Figure 1. Location of woodland key habitats and forest area in Lithuania

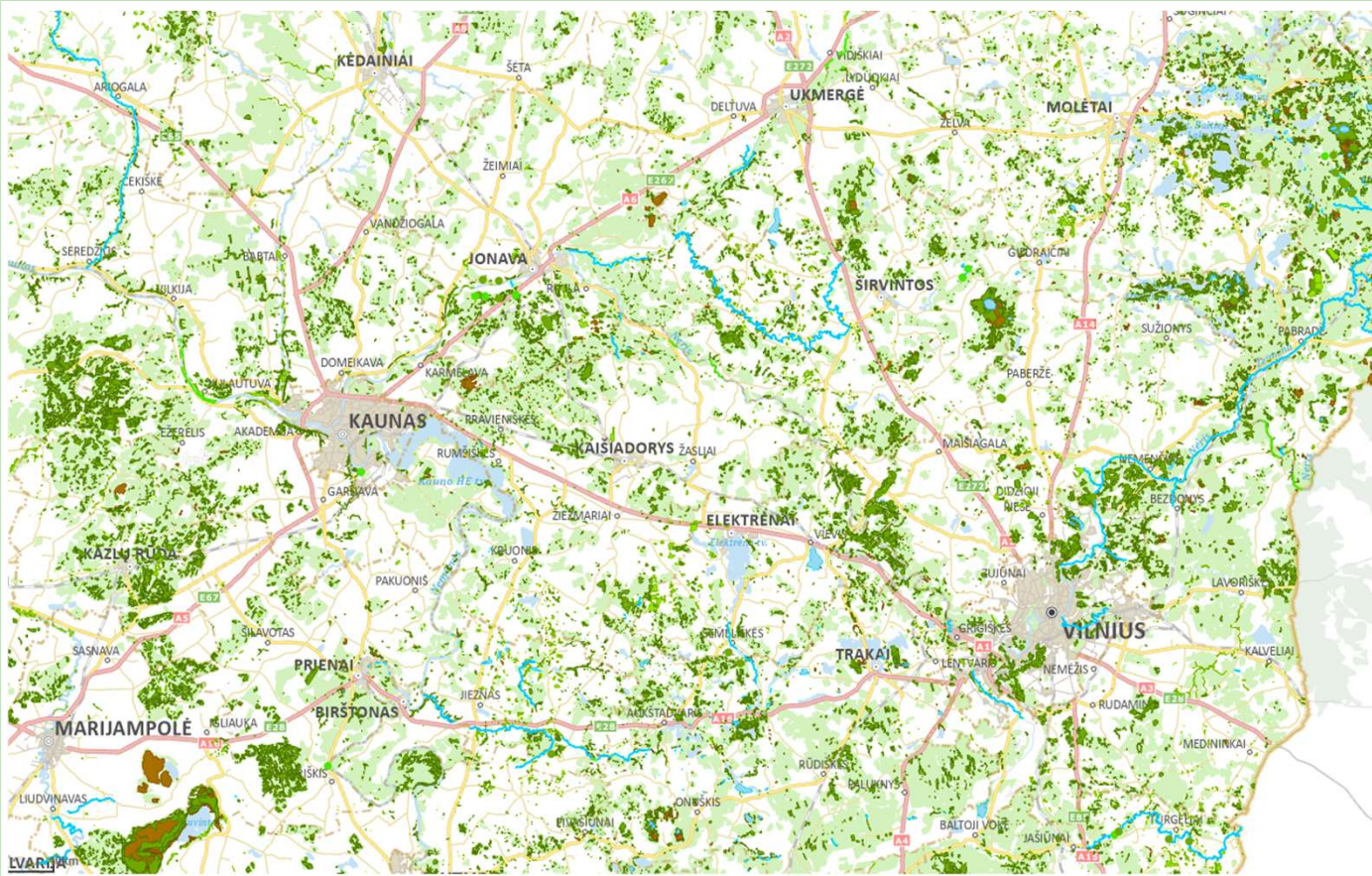
**A repeated inventory of existing and new WKHs was carried out in 2013-2017:**

**8 968 WKHs, which cover a total area of 26 692.5 ha.**

**All the data is stored and published in the Forest Cadastre' database**



# Mapping (of habitats of Annex I of HD, 2011-2015)



Inventory of habitats of Community importance in all country's forests (2011-2015).

Forest habitats:

- 271.7 thous. Ha;
- 12.75 % of the total forests' area;
- forest habitats comprise 62 % of the total area of mapped habitats.
- Published in [geoportal.lt](http://geoportal.lt)

# Mapping (Sabatini, et al., 2016)



**Mapping of natural (primary) forests Sabatini, et al. (2016)**

**Were mapped „long time (>60 years) untouched forests“: large strict reserves (group I), forests on swamp' islands, etc.**

**There was also additional criteria on the history of the data, the total area, etc.**

# Mapping of primary forests (Sabatini, et al., 2016)



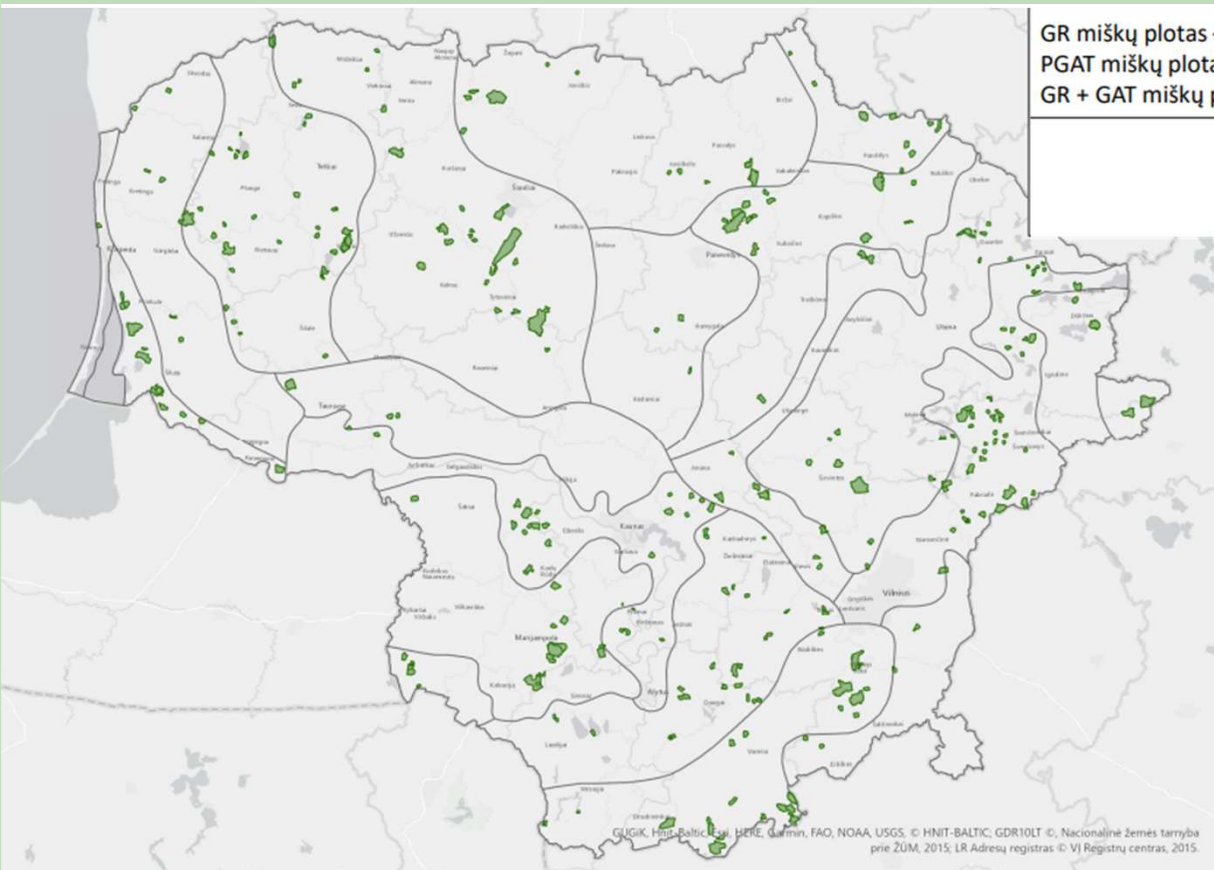
*Table 5. Area of primary forests in EU countries belonging to Boreal biogeographic region. Forest area according to FOREST EUROPE (2020). Excerpt from Barredo et al (2021)*

Country	Forest area 2020 [1,000 ha]	In forest [1,000 ha]	In other wooded land [1,000 ha]	In forest and other wooded land [1,000 ha]	Primary forests (FAO, 2020) [1,000 ha]	Primary forests (Sabatini et al. 2020) [1,000 ha]
Estonia	2,421	52	2	55	52	0
Latvia	3,391	17	0	17	17	4,8
Lithuania	2,187	27	0	27	27	32





# Mapping of potential strict protection forests (2024)



29.3 thous. Ha – strict reserves in the forests + additionally mapped **86.8 thous. Ha (3,9 %** of the total forest area) to set strict protection regime.

The forests located in a large part of the proposed areas cannot claim to be considered as OGF, but the purpose of the exclusion is to create conditions for the recovery of OGF, which would more evenly represent the conditions typical of LT's biogeographic regions.



The protection of WKHs in state forests is mainly covered by the 10% voluntary set-aside criteria in the Forest Stewardship Council's (FSC) National Certification Standard for Lithuania (FSC 2020) (**19.5 thous. Ha, 78% of WKHs**), while private forest owners only partly have FSC Certificates they were initially able to receive limited time incentive payment provided by the European Union support for non-application of wood harvesting (2007-2013) but not now.



# Protection of the old-growth forests in the N2000



127.3 thous. Ha (47%) of mapped forest habitats are protected in N2000 network.  
Ongoing process of setting local conservation objectives for new N2000 areas.  
The purchase of the most valuable old-growth forests by the state (143 ha in 2024).

No final cuttings in the forest habitats in N2000.

Additional requirements: dead wood, intensity, period of cutting, etc.

New procedures for assessment of significance of possible negative impacts on N2000 sites before final or salvage forest cutting (since 2024).

Financial support is provided for the protection of forest habitats in private forests:

- “Natura 2000 payments in forests” - 9 611 ha in 2024, max. 275 EUR/ha annually;
- compensation scheme from national budget – ~ 2 Meur annually.

# Challenges in protection of the OGF outside N2000



**Setting the new protected areas and increasing the N2000 network  
(+6610 ha, in 2023-2024).**

**New legal system for private protected areas (created in 2024).**

**Amendments to the Law on Forests and Forest Cutting Regulations are being prepared to set Closer to nature forestry principles for the management of the commercial forests**

## Conclusions

- We have enough data on old-growth forests, so additional mapping is not foreseen;
- The most valuable old-growth forests are protected under the N2000 sites or voluntarily protected as WKHs;
  - The purchase of the private old-growth forests by the state will be continued;
  - The system of conservation agreements and compensations will be further continued;
- Changes in legislation are planned for better protection of the old growth forests (e. g. to require applying of the closer to nature forestry principles)



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# Thank You!

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