

11<sup>th</sup> October 2019



# Impact of climate change on Czech Forests

## Role of forest certification in response

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## CONTENTS:

- Basic information on forests in the Czech Republic
- Bark beetle outbreak and other impacts of climate changes on Czech forests
- Implications for forest certification

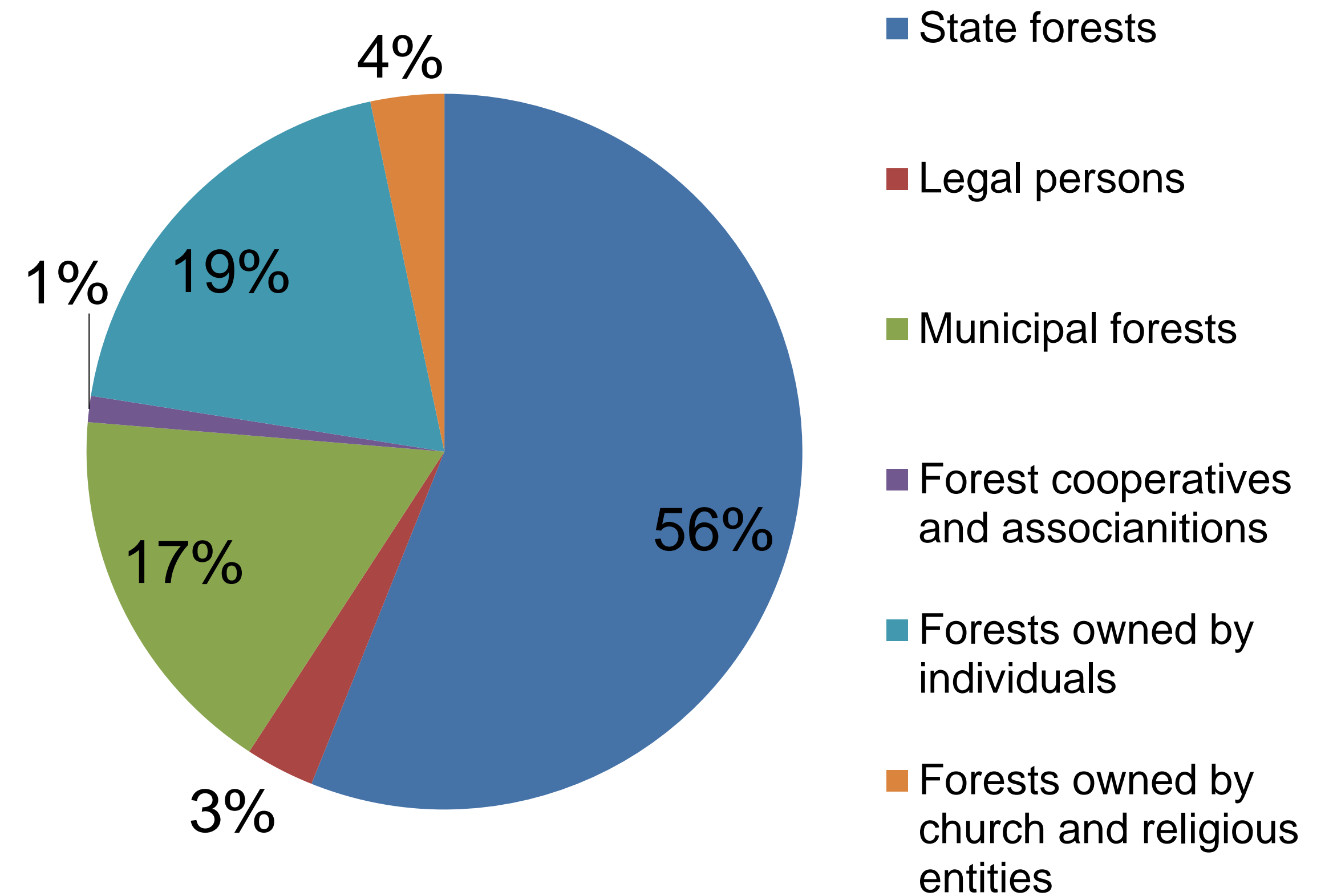


## FOREST AREA

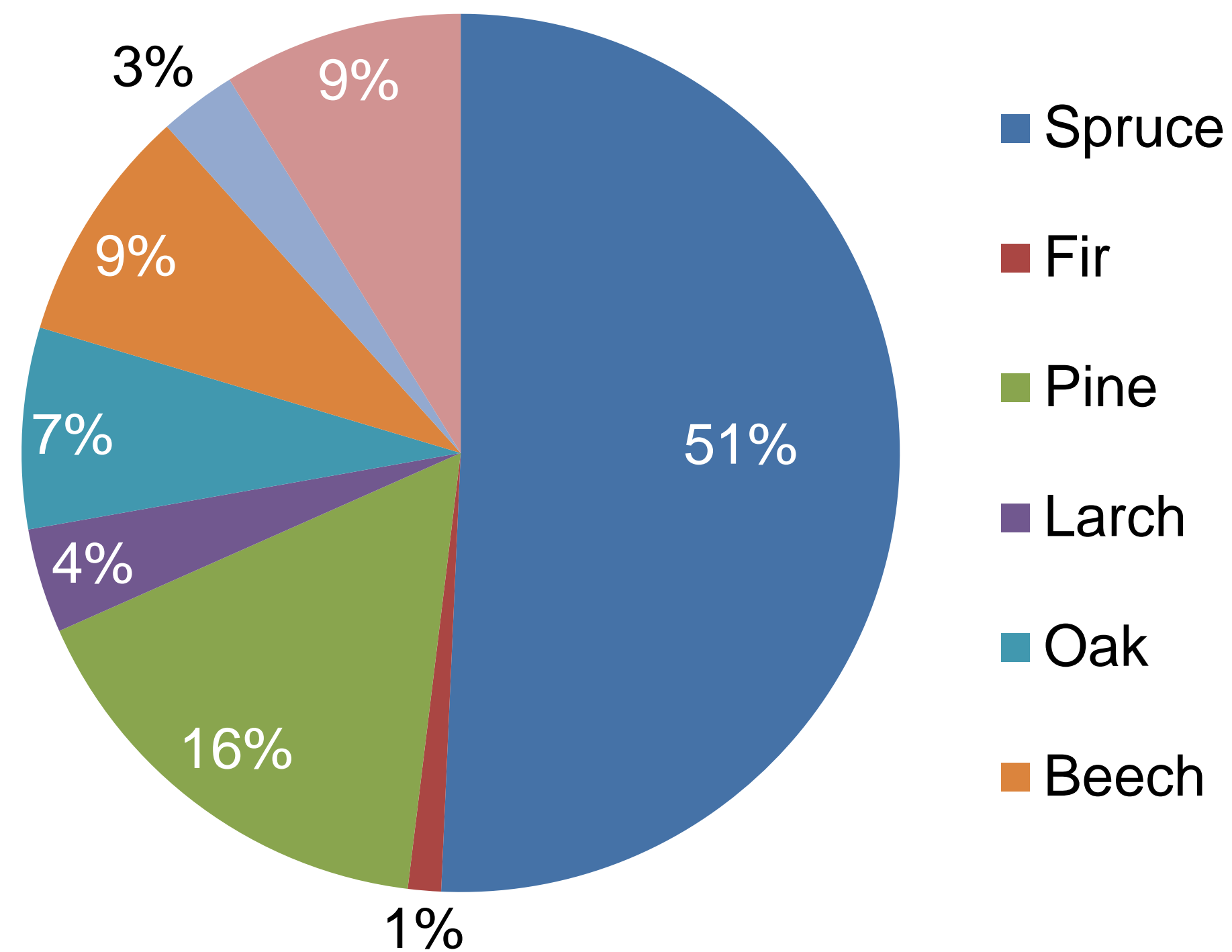


**2 673 392 ha = 34 %**

## FOREST OWNERSHIP STRUCTURE

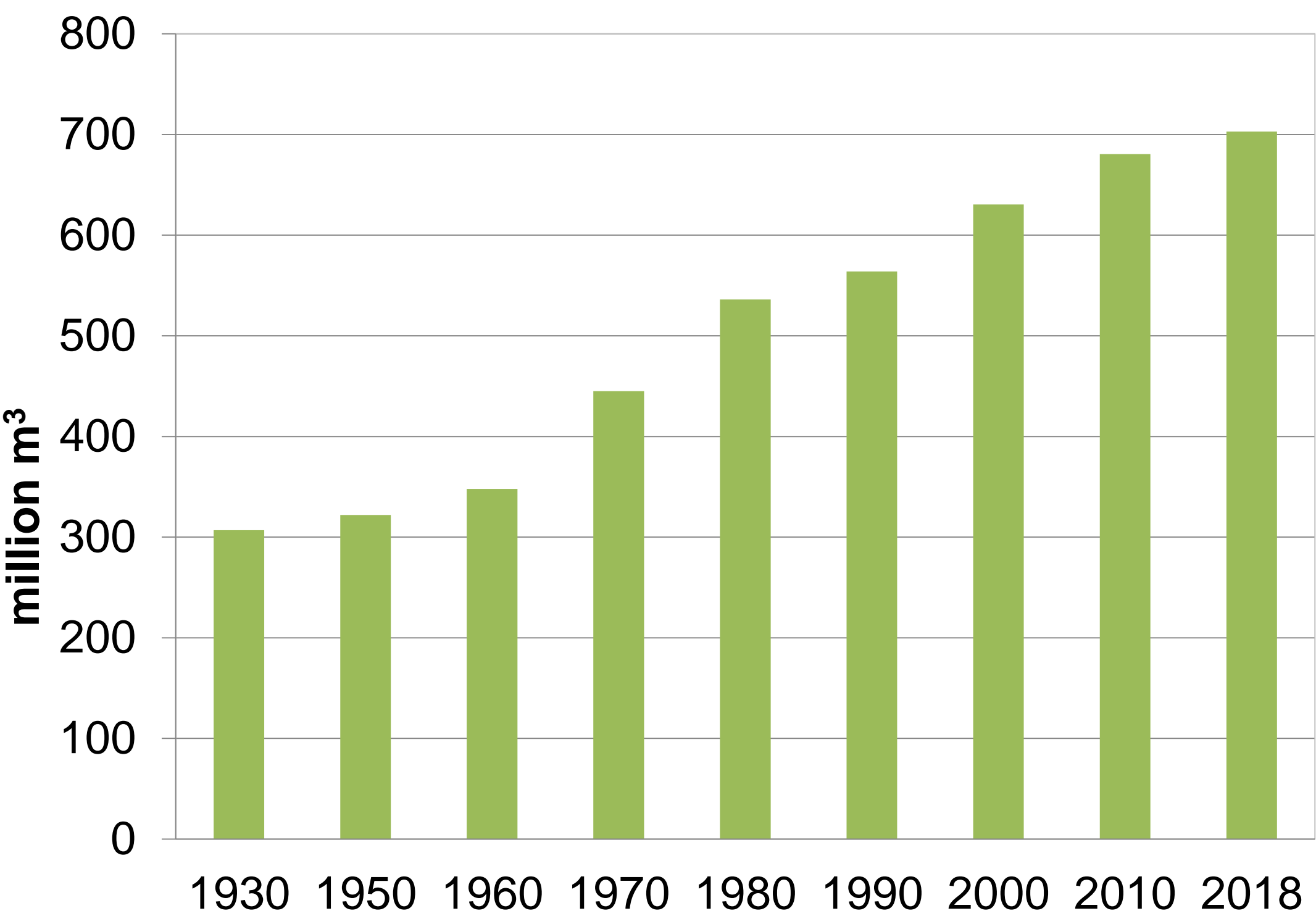


# TREE SPECIES COMPOSITION

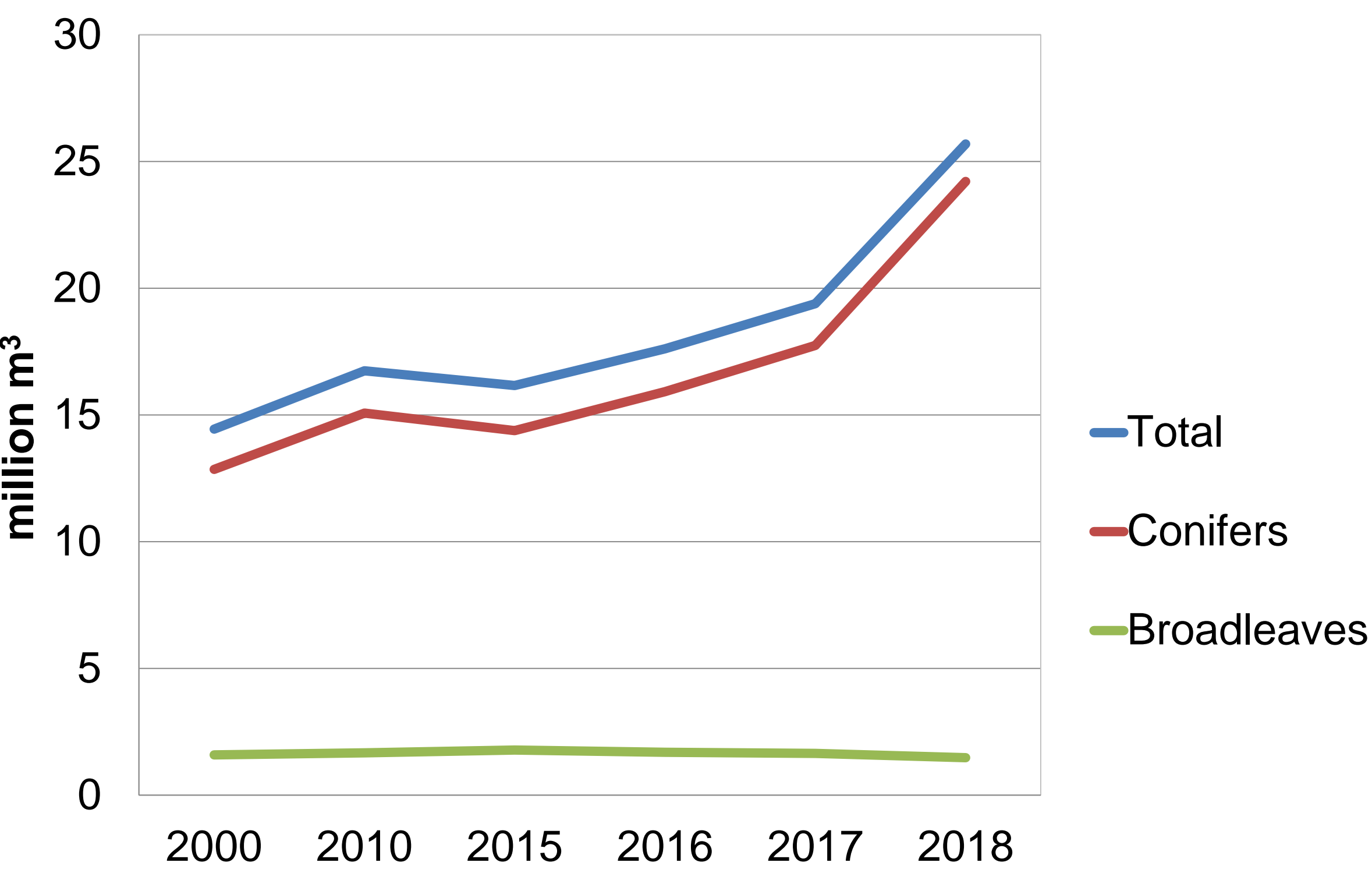


Conifers      72 %  
Broadleaves   28 %

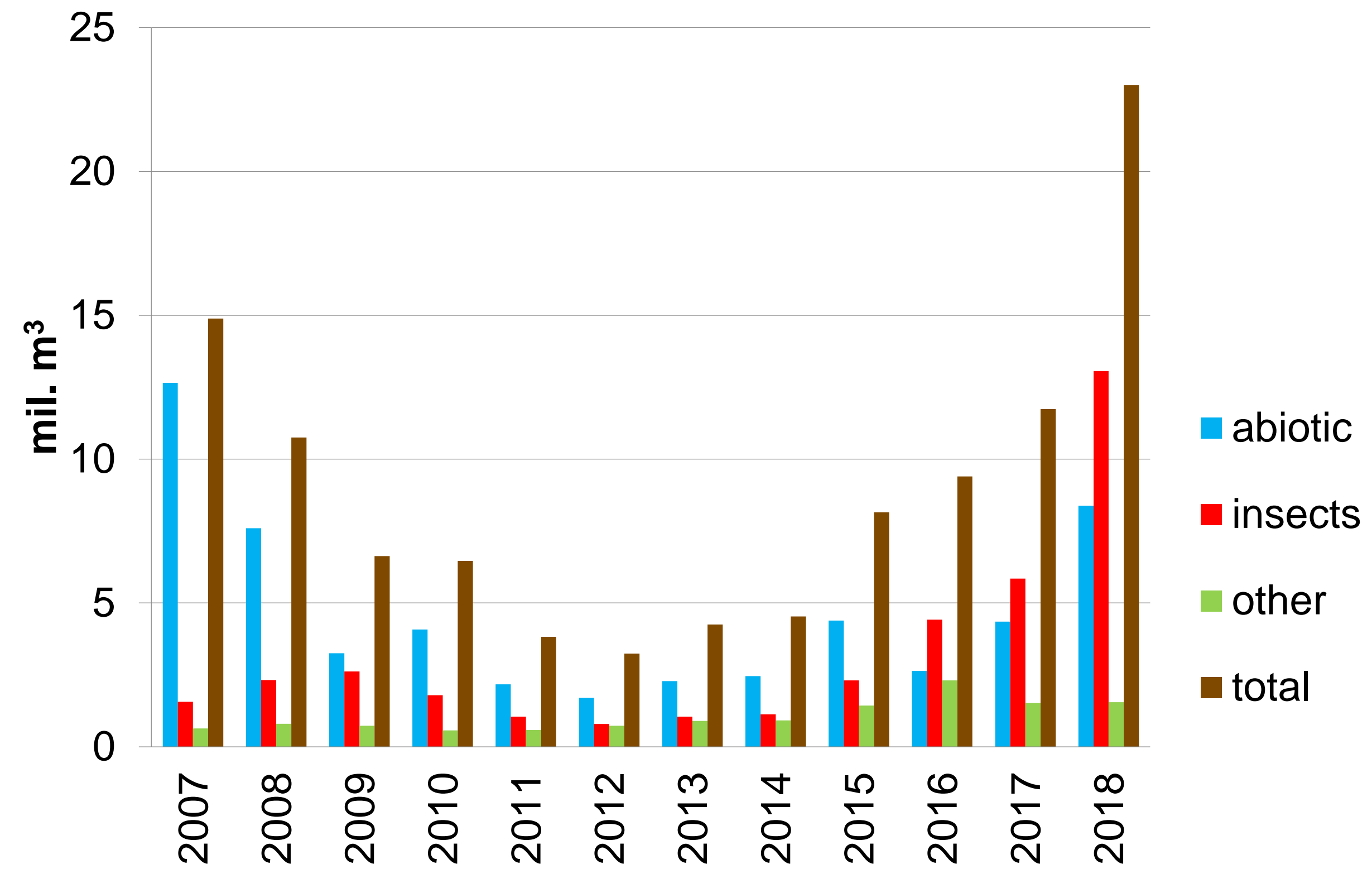
# GROWING STOCK VOLUME



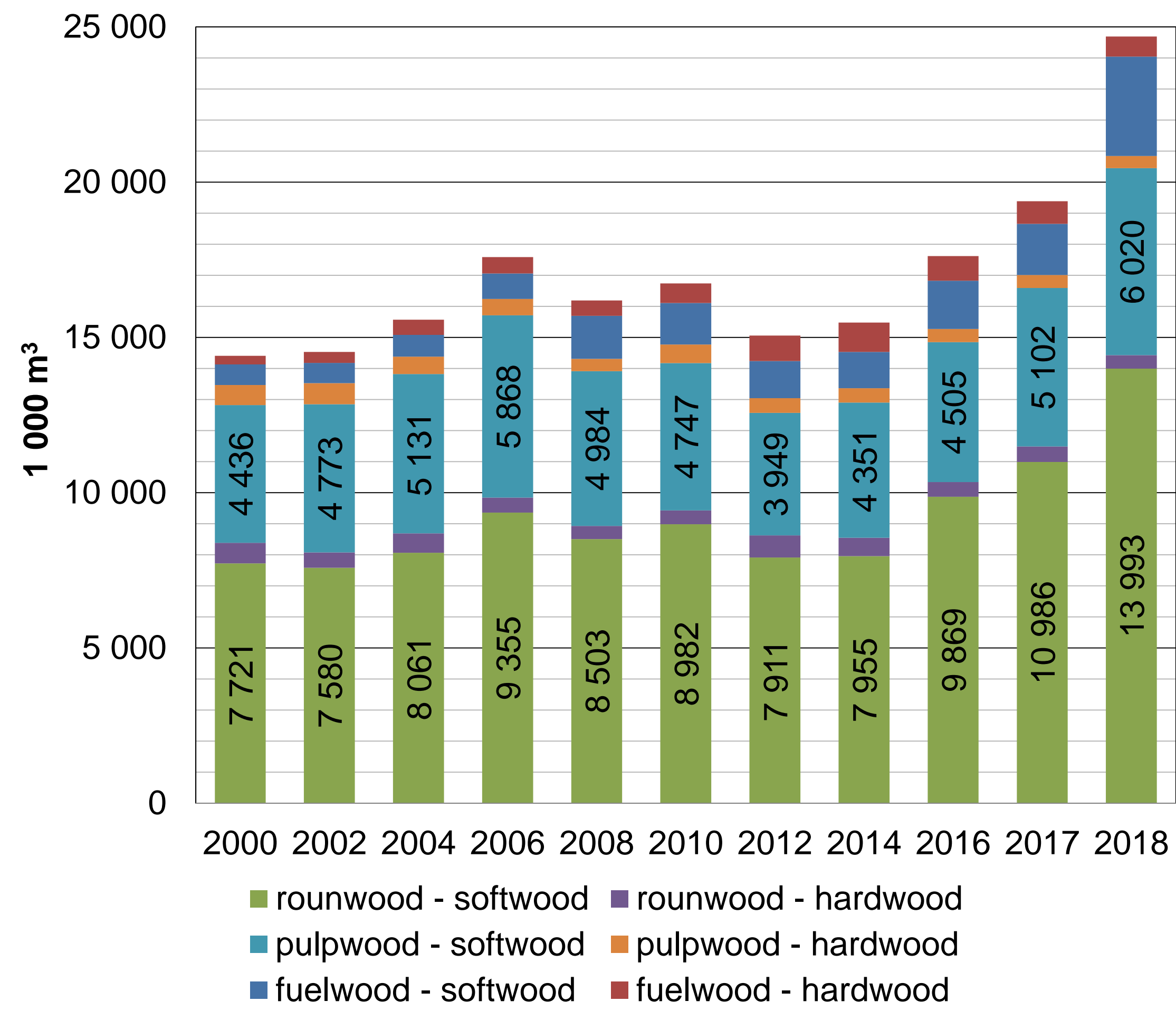
# ANNUAL TIMBER HARVEST



# INCIDENTAL FELLING



# TIMBER SUPPLIES



# TIMBER EXPORTS AND IMPORTS 2018

Assortment		Exports (1 000 m³)	Imports (1 000 m³)
Softwood roundwood and pulp		8 100	1 246
of which	Spruce	7 639	1 036
	Pine	278	197
	Other	183	13
Hardwood roundwood and pulp		209	176
of which	Oak	36	57
	Beech	109	64
	Poplar	1	1
	Birch	50	30
	Other	13	24
Charcoal		1	19
Fuelwood		129	24
Chips, particles		632	843
Sawdust, Wood Waste, Residues		1 075	927
Wood pellets and other agglomerates		871	167
Total		11 017	3 402



# FOREST CERTIFICATION

Area and share of certified forests in the Czech Republic ČR (ha)  
2018

	PEFC	FSC
State forests	1 338 177	35 097
Natural persons	85 597	1235
Legal persons	142 253	10 205
Municipal forests	191 191	7 933
Total	1 757 218	54 470
Percentage of forests	66 %	

Number of chain of custody certification in the Czech Republic  
2018

	PEFC	FSC
C-o-C	230	252

# CLIMATE CHANGE IN PROGRESS

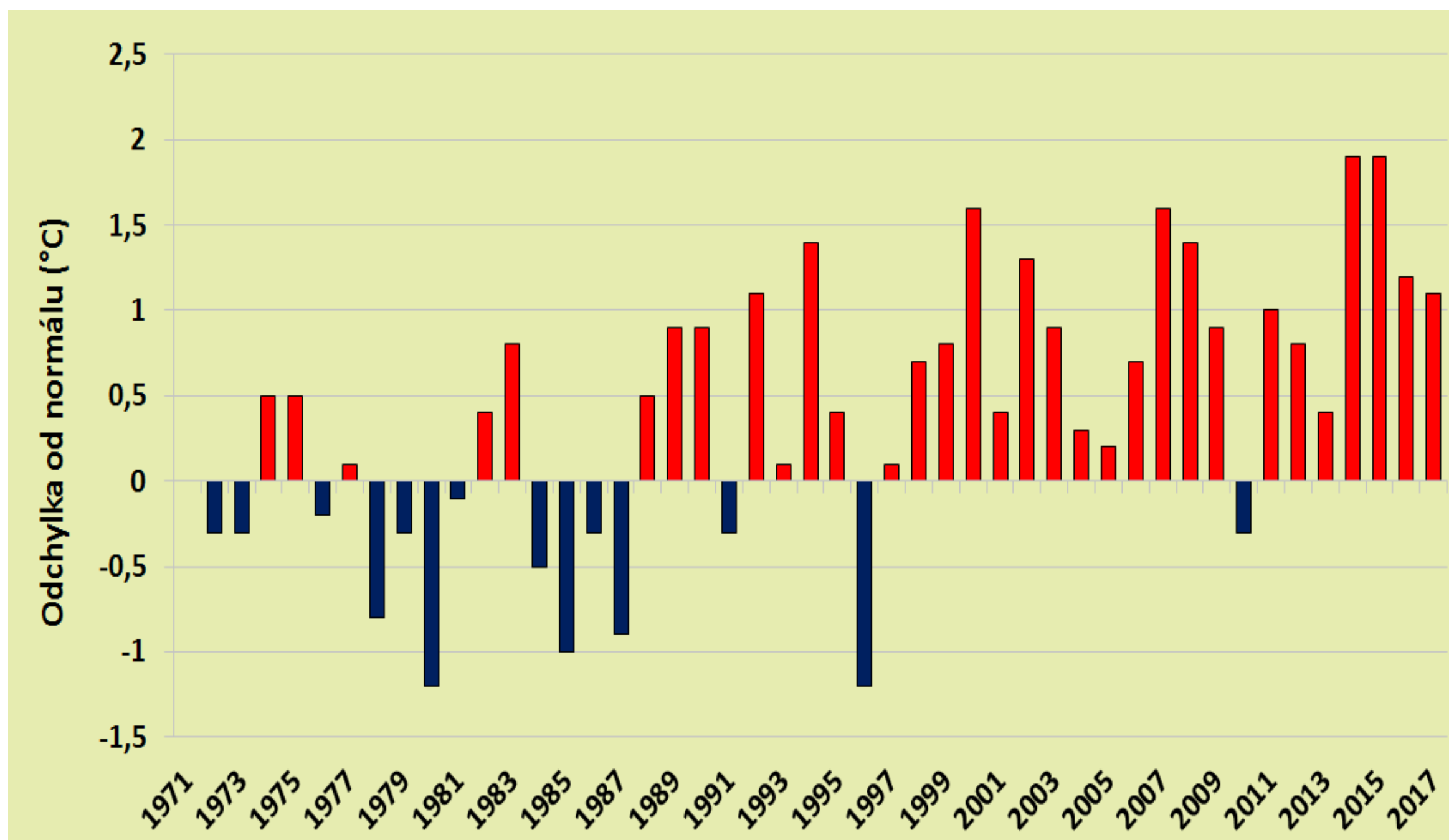


Fig. 1: Deviation of annual mean air temperatures from long-term average (°C).

In 2018 **+1,7 °C**

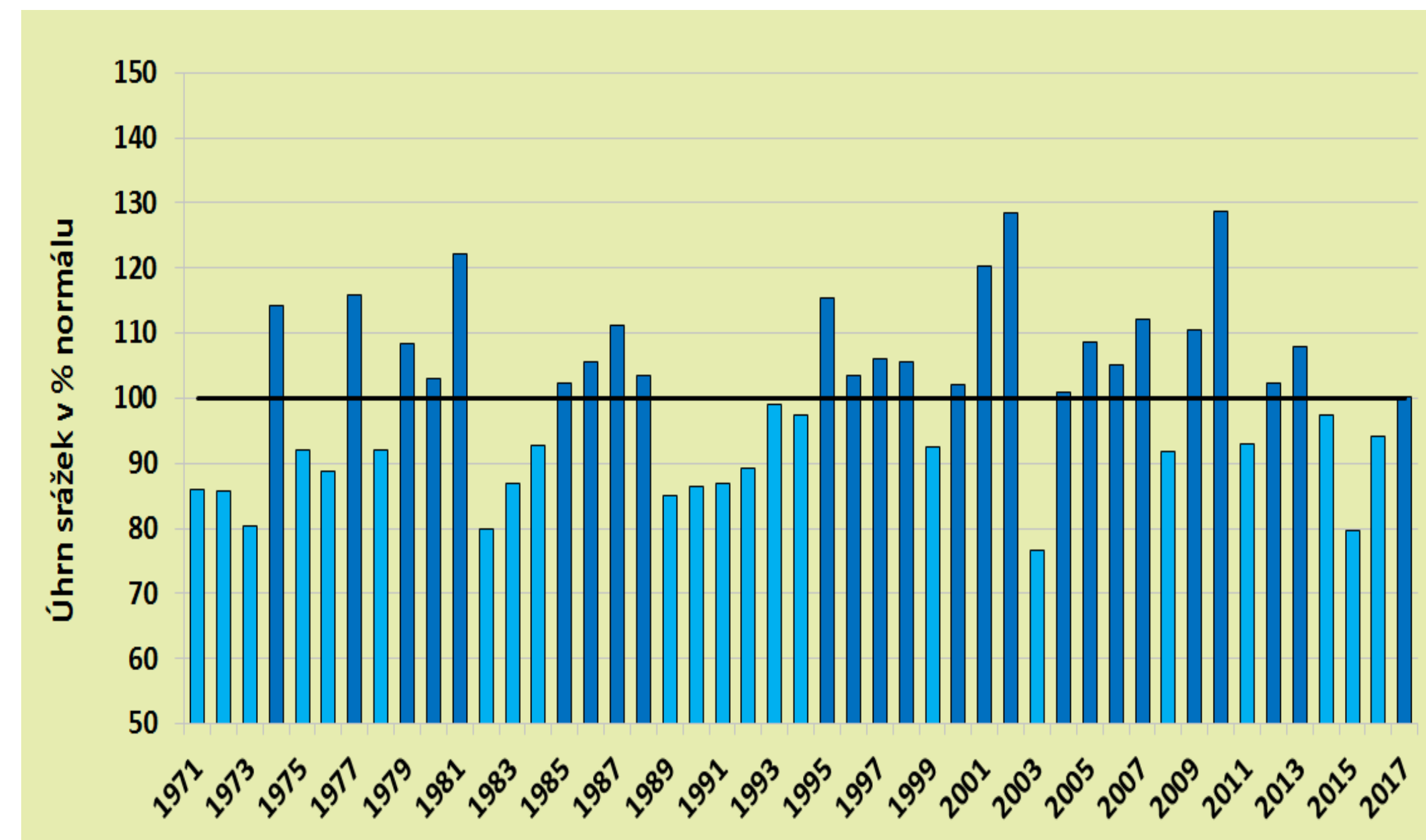
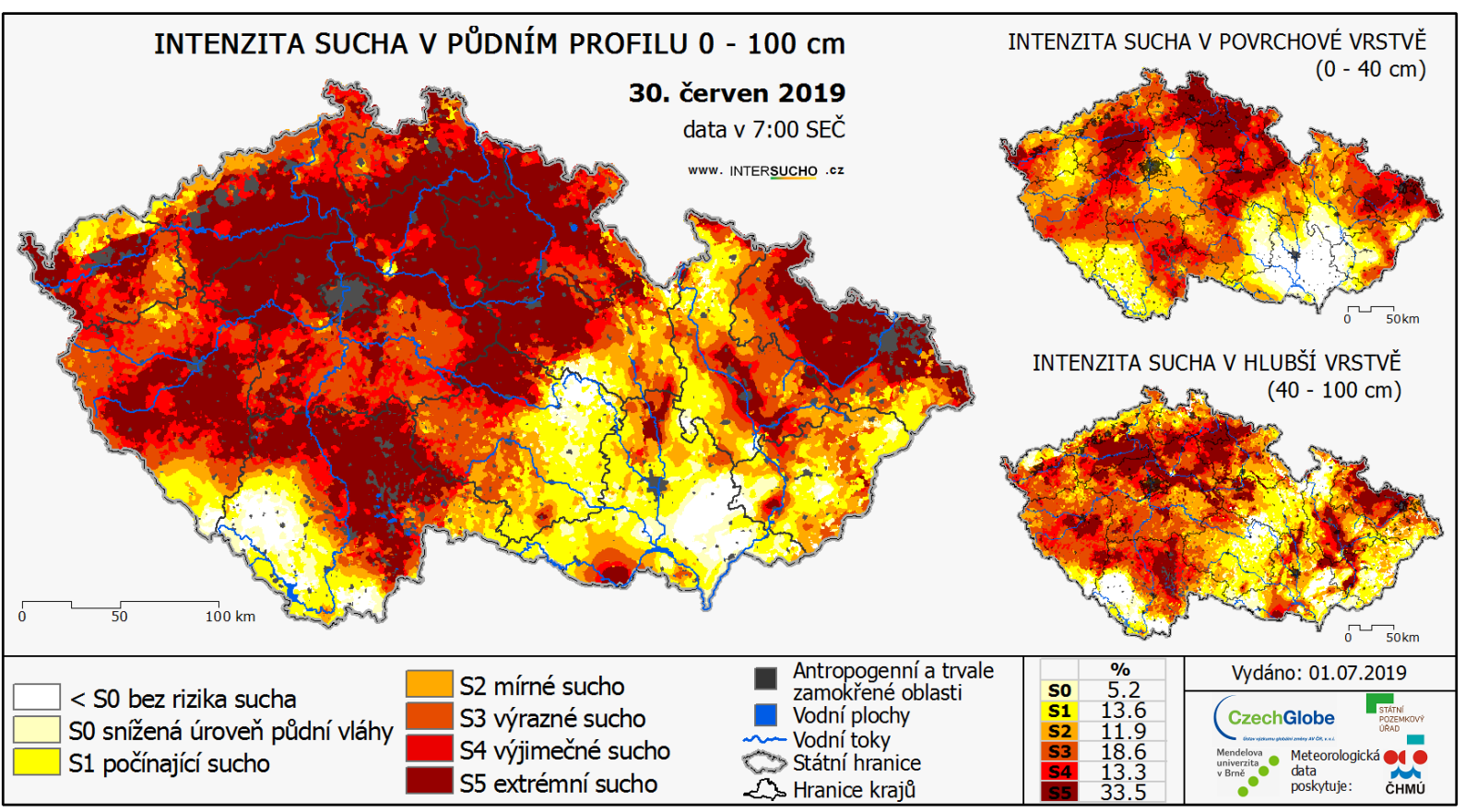
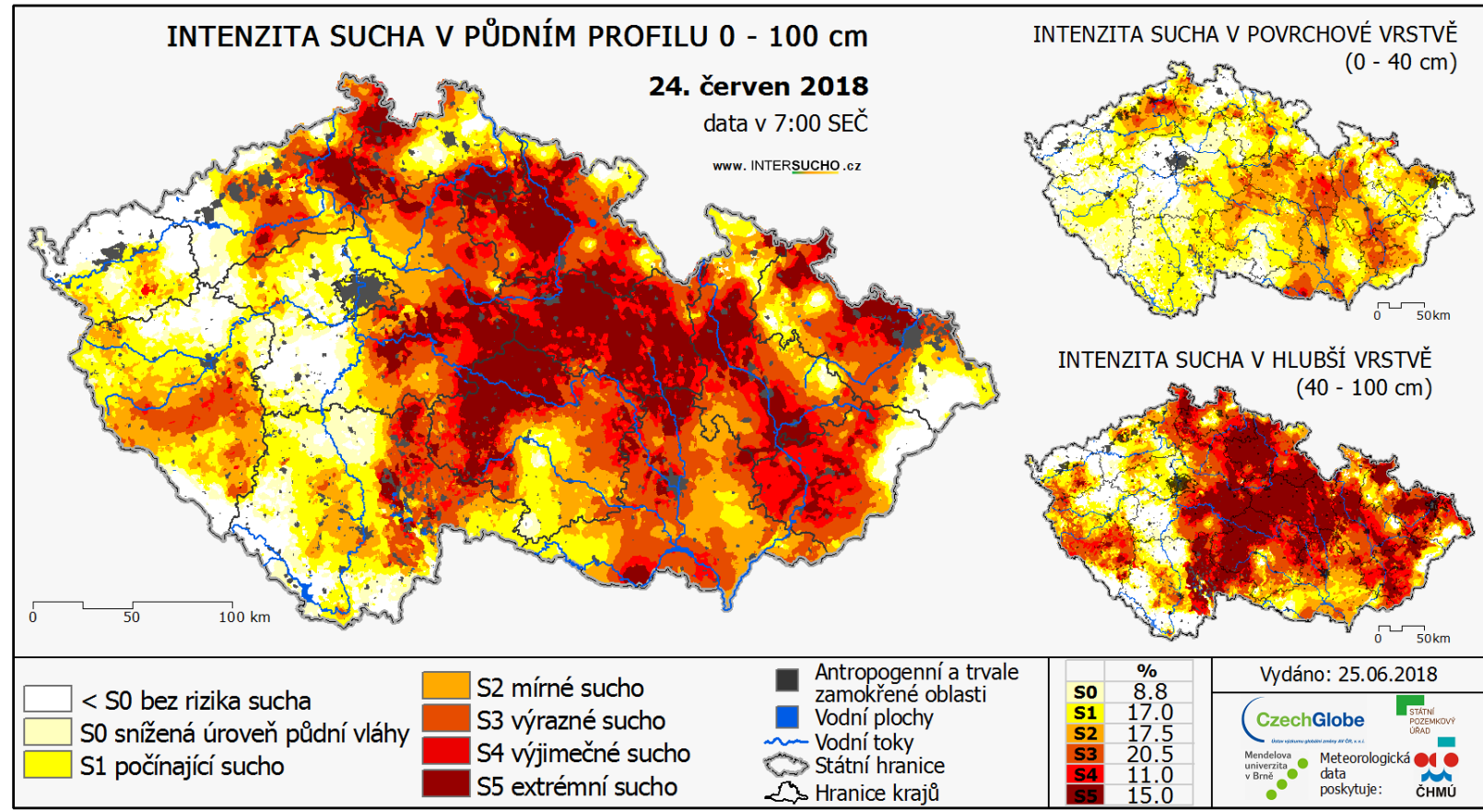
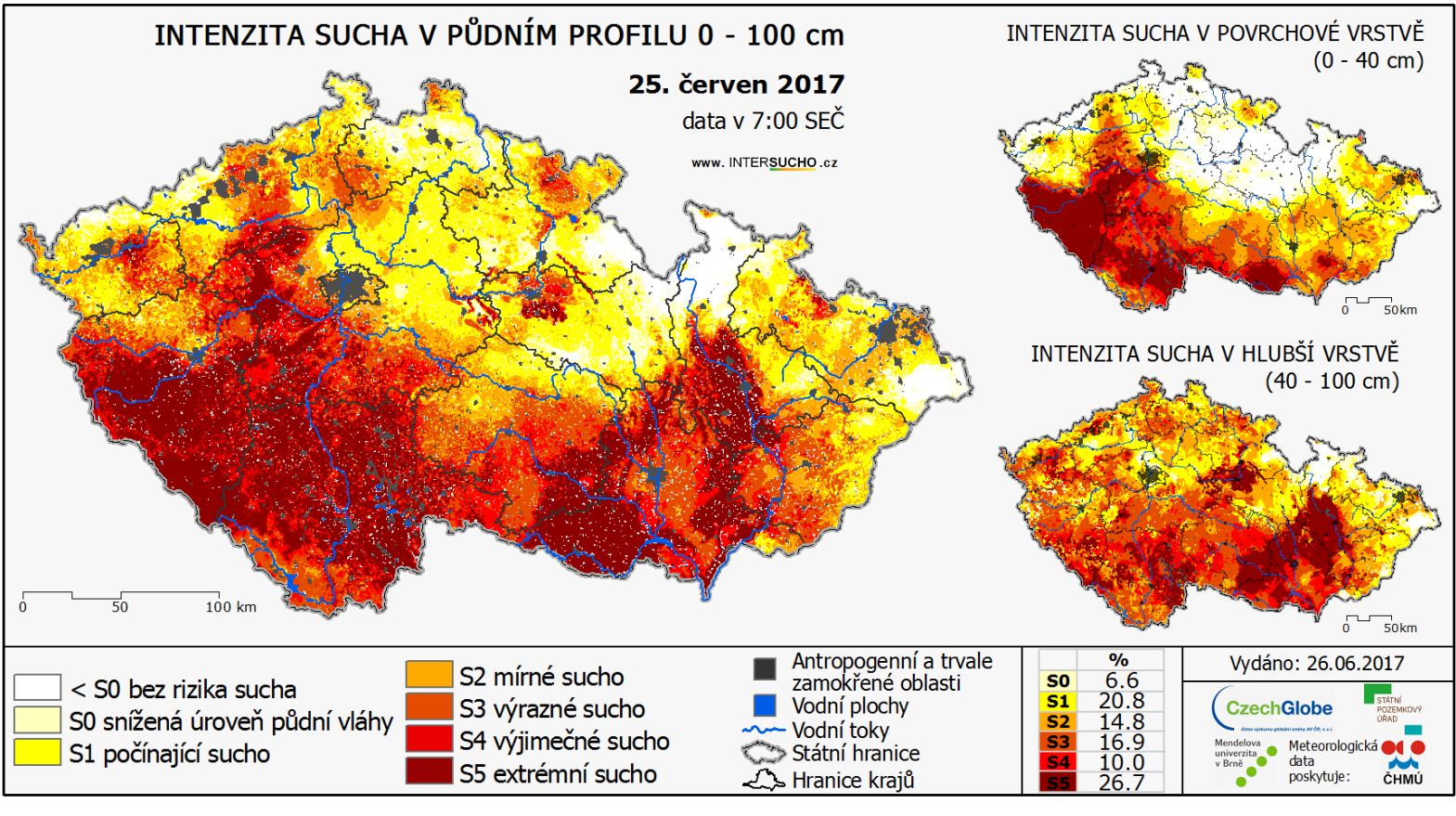
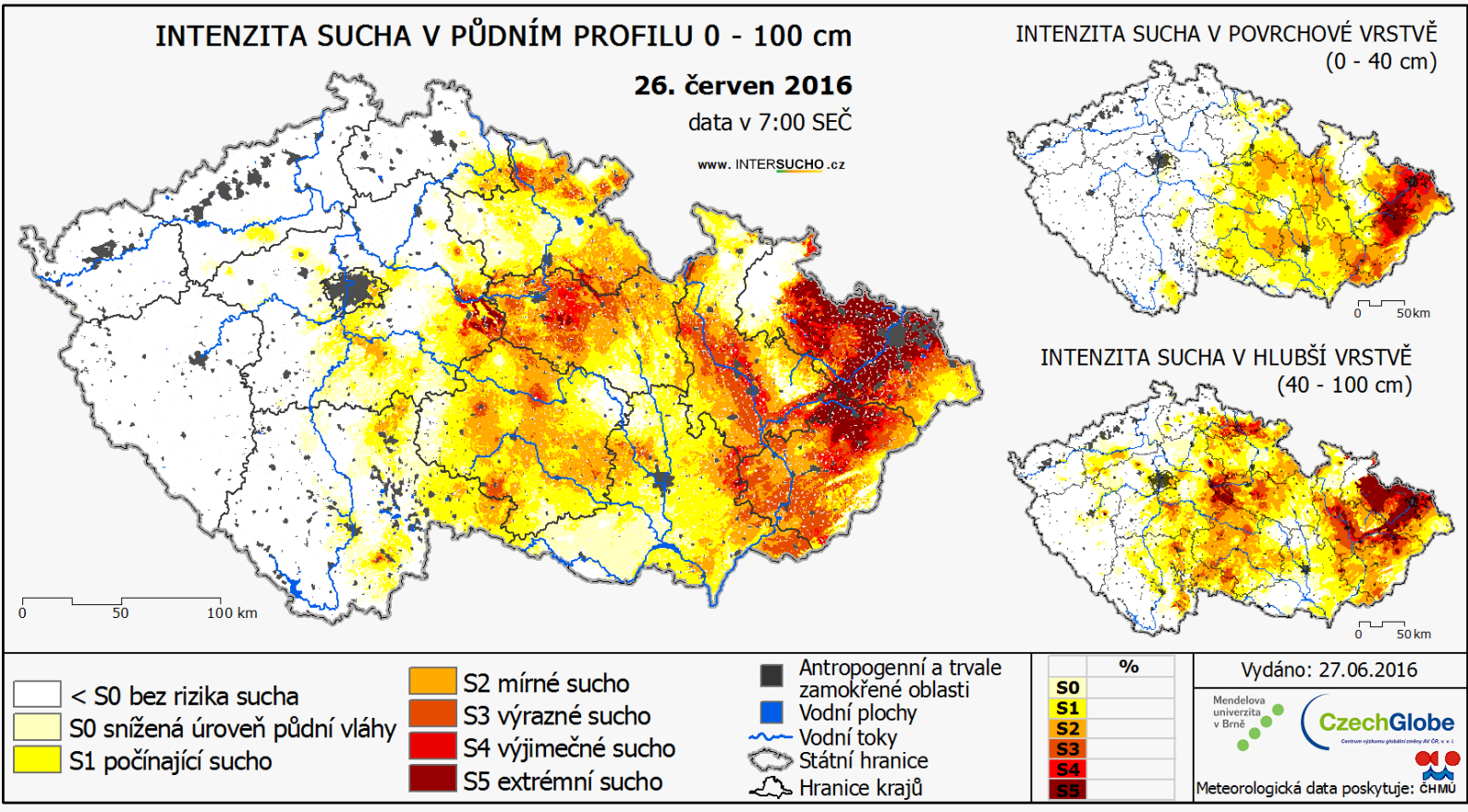
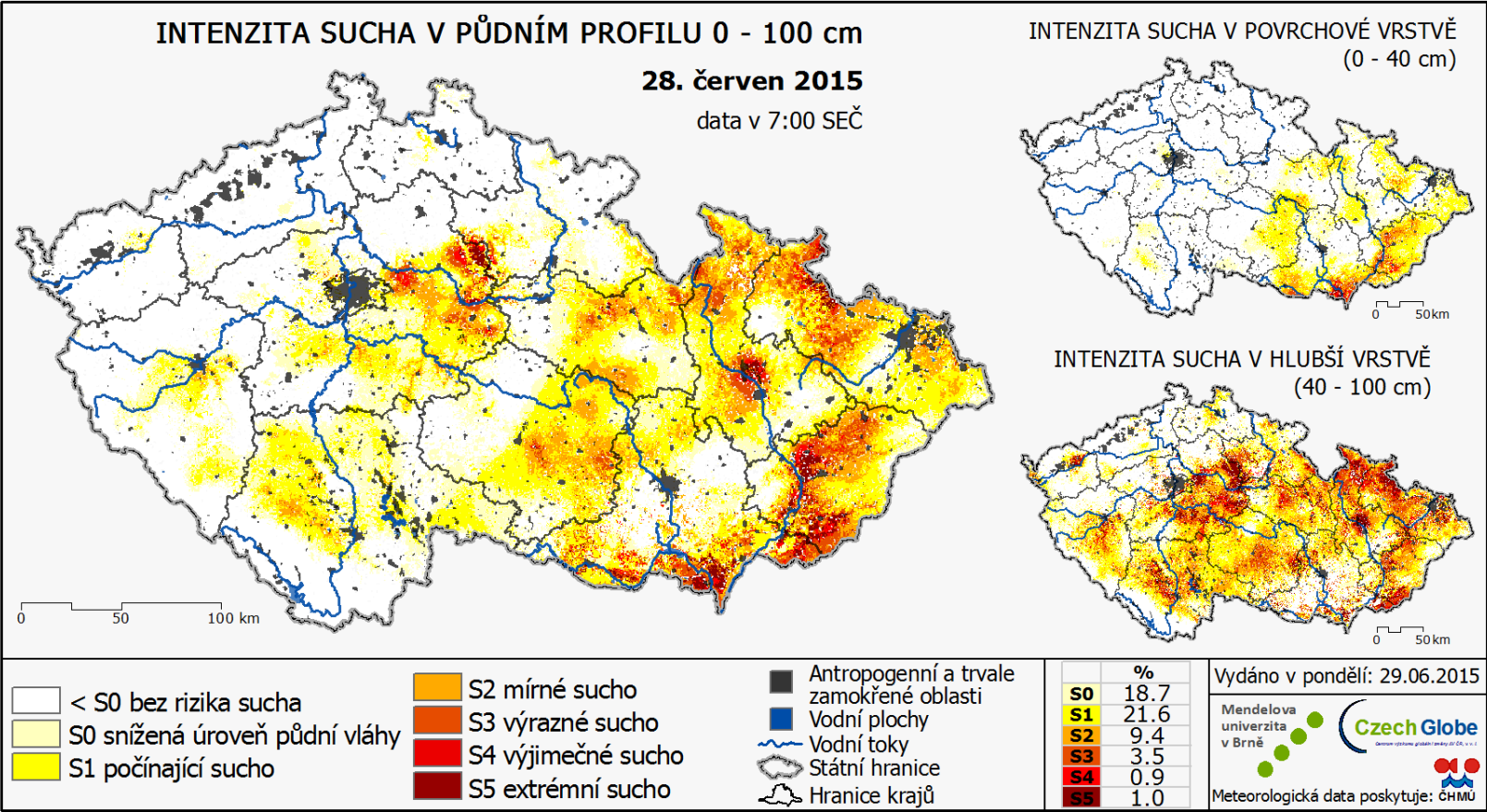


Fig. 2: Total annual precipitations in % as compared to long-term average.

In 2018 **76 %**



# CLIMATE CHANGE IN PROGRESS



**Intensity of drought in soil profile 0 – 100 cm**

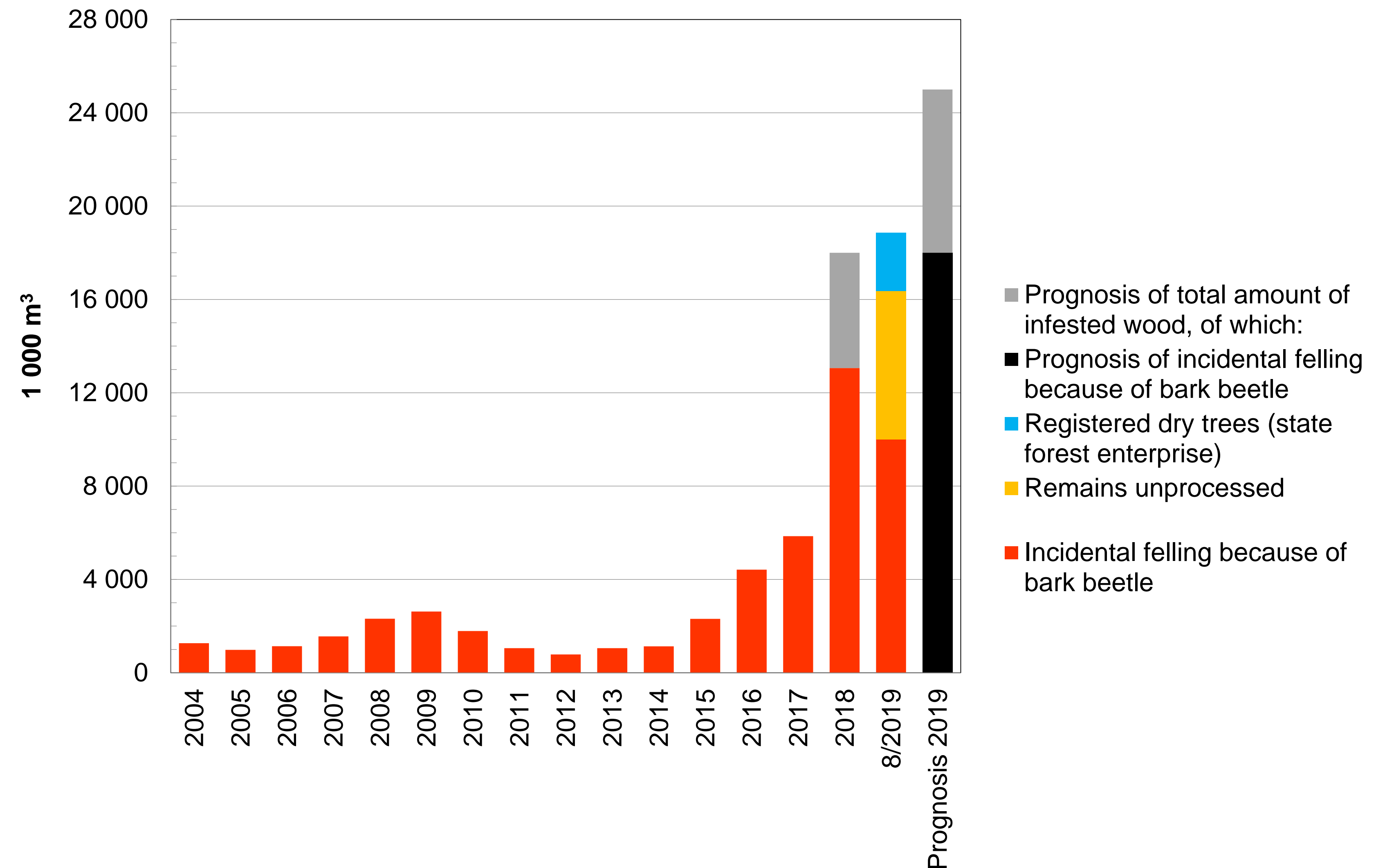
**2015 – 2018 (as of end of June)**





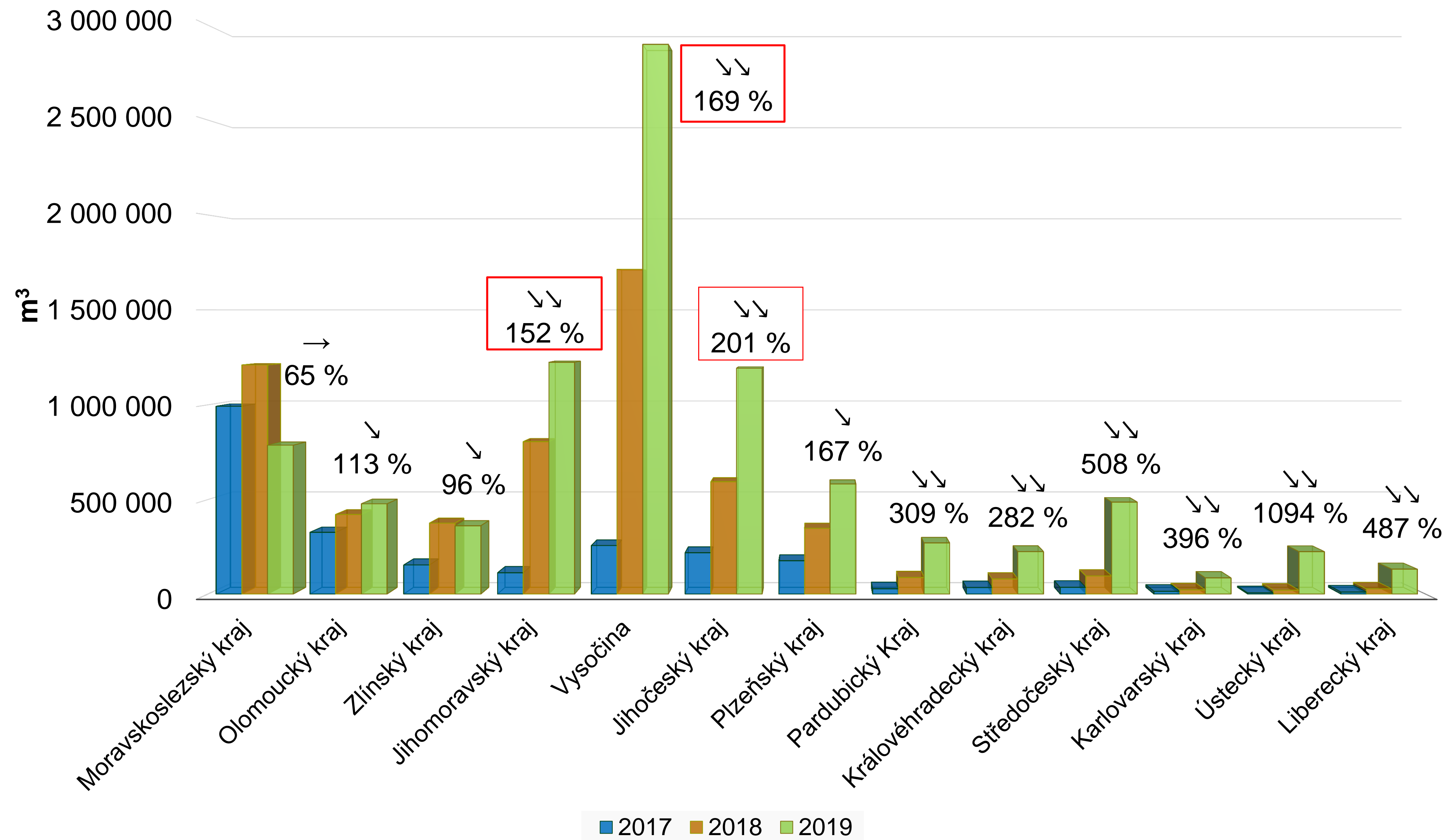
# EVOLUTION OF BARK BEETLE OUTBREAK

## Development of bark beetle outbreak Information as of 31/8/2019



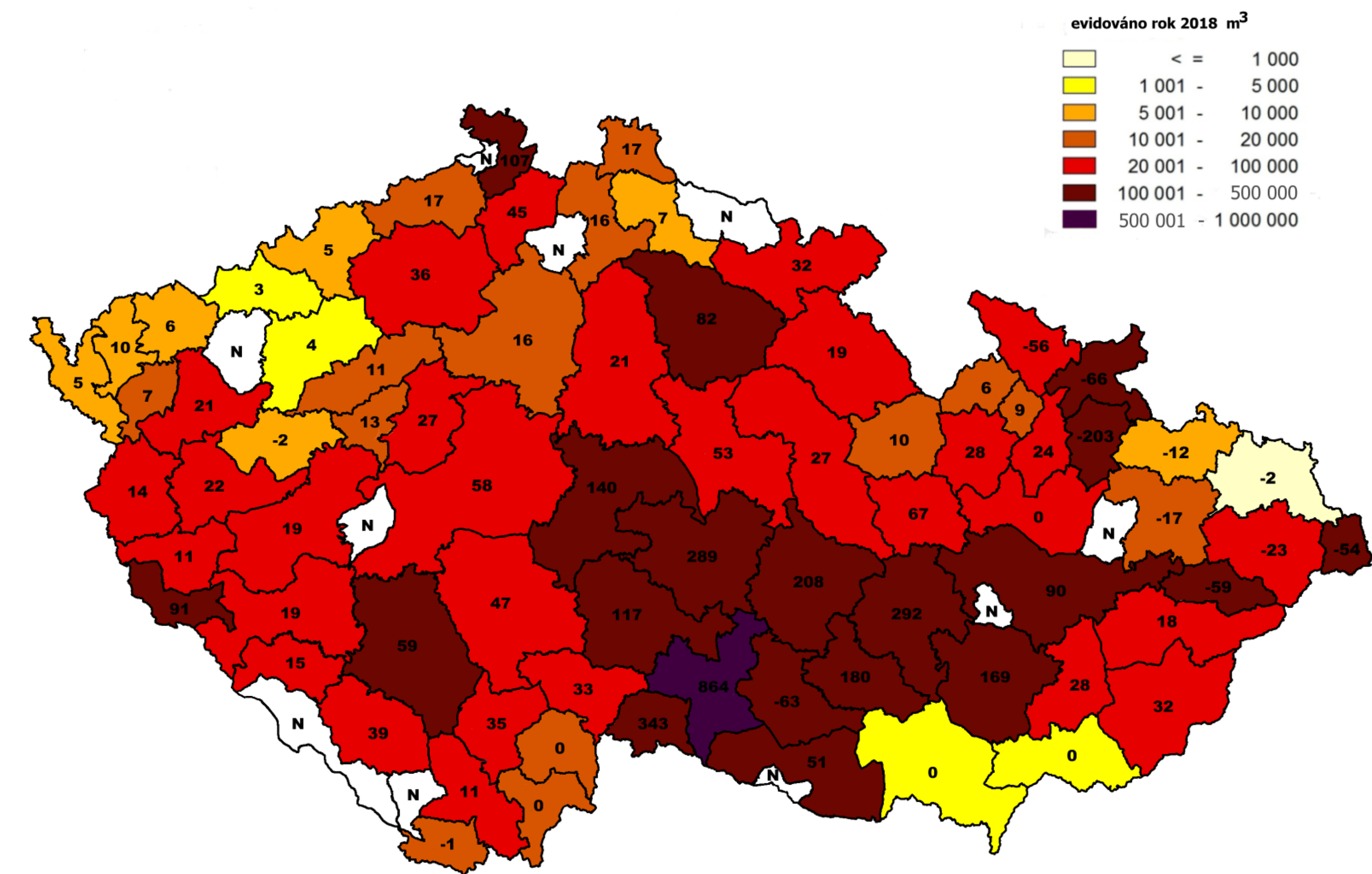


# COMPARISON OF AMOUNTS OF INFESTED TIMBER BY REGIONS: January-August 2017-2019





# HARVESTED TIMBER INFESTED BY BARK BEETLES IN 2019



Inscribed numbers represent a change in the amount of harvested timber infested by bark beetles in a given forest district in comparison with the same period of 2018 (January – July; in 1 000 m<sup>3</sup>).

**Source:** Forests of the Czech Republic, state enterprise





## DISCUSSION ON CHALLENGES relevant to forest certification

In short term:

- Can certification help tackle bark beetle outbreak?
  - To have flexibility in treating infested timber
  - To have better access to timber markets
  - To overcome negative public perceptions
  - To be on good terms with environmental NGOs

In long term:

- Can certification help adapt forests to climate change?
  - To increase forest resilience
  - To change tree species composition
  - To support water retention/optimize water regime
  - To prevent soil erosion

Photo: Lesnická práce Journal



# ACHIEVEMENTS AND CHALLENGES FOR FSC CERTIFICATION IN CZECHIA

## ■ Achievements

- Establishment of a working groups on FSC certification and related issues in 2017 (Association of Forestry and Woodworking Enterprises, Forests of the Czech Republic, S.E., Military Farms and Forests, S.E., Ministries of Agriculture, Ministry of Industry and Trade, and Environment, FSC Czech Republic)
- Involvement of Tripartite organizations (unions and employers) in forestry and woodworking industry
- Better involvement of above mentioned organizations in drafting of the new Czech FSC standard
- Agreement on the new Czech FSC standard

## ■ Challenges

- Current discussion on FSC certification focuses only on state forests (state forest enterprise Forests of the Czech Republic), other public forests (especially municipal forests) are not, with some exceptions, interested in it
- Improve credibility of FSC certification on a global scale
- Overcome differences of requirements by different national standards – ensure that access to market for FSC certified timber is fair

## ■ Role of state

- Forest Act, Administrative measures of general nature, Timber Act
- Forest certification as voluntary market tool to promote sustainable forest management; not a tool of state
- Forest certification as part of the due diligence system according to Article 6 of the Regulation (EU) No. 995/2010 laying down the obligations of operators who place timber and timber products on the market
  - Risk assessment and risk mitigation procedures





MINISTERSTVO ZEMĚDĚLSTVÍ

# THANK YOU FOR YOUR ATTENTION!

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