

Northern Forests and Climate Change

Roadmap to UNFCCC COP 30

Country experience from Czechia

Geneva 23. 5. 2024

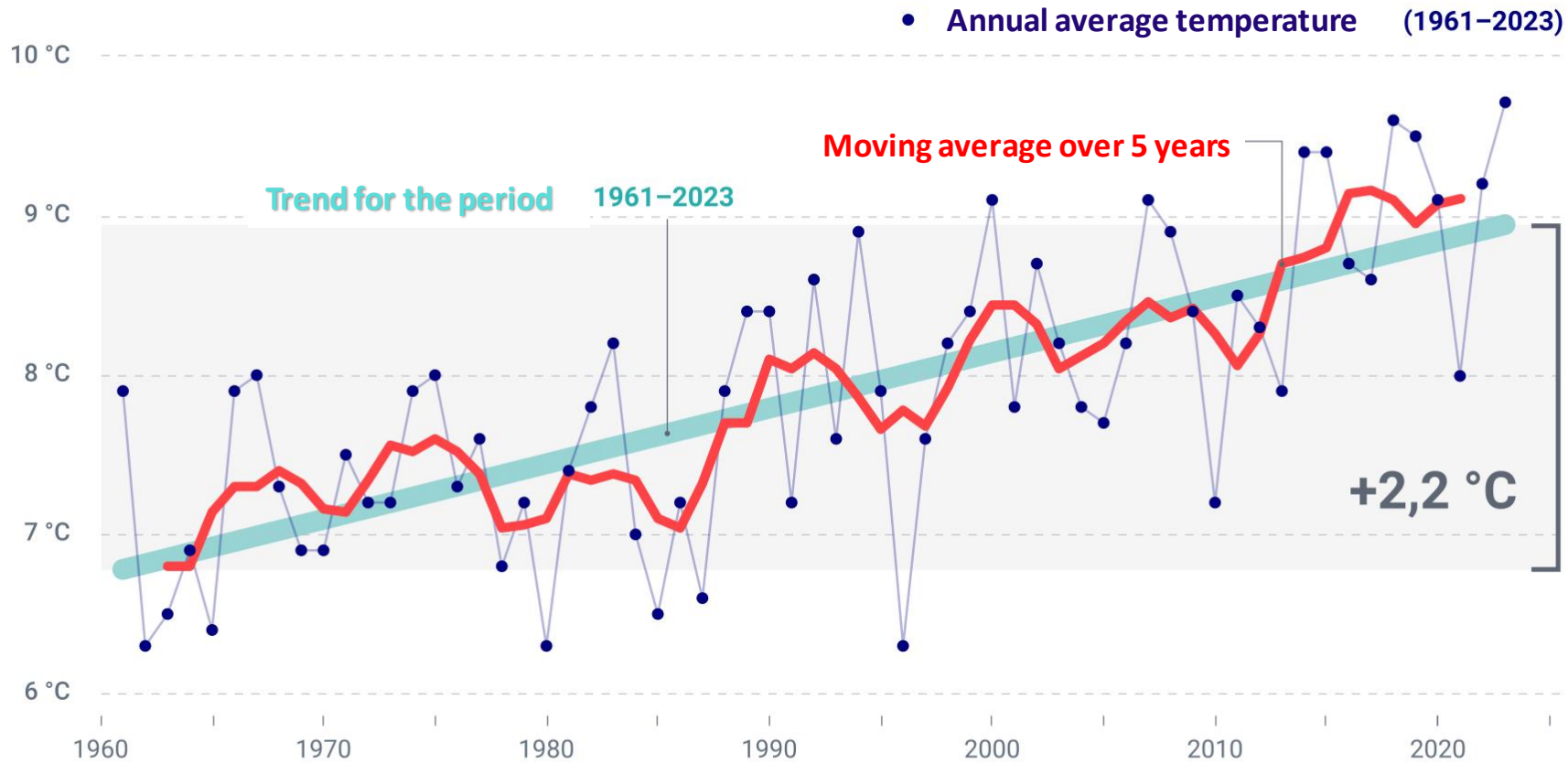


Outline

- Development of weather
- State of forests
- Adaptation and policy measures
- Key measures



Annual average temperature

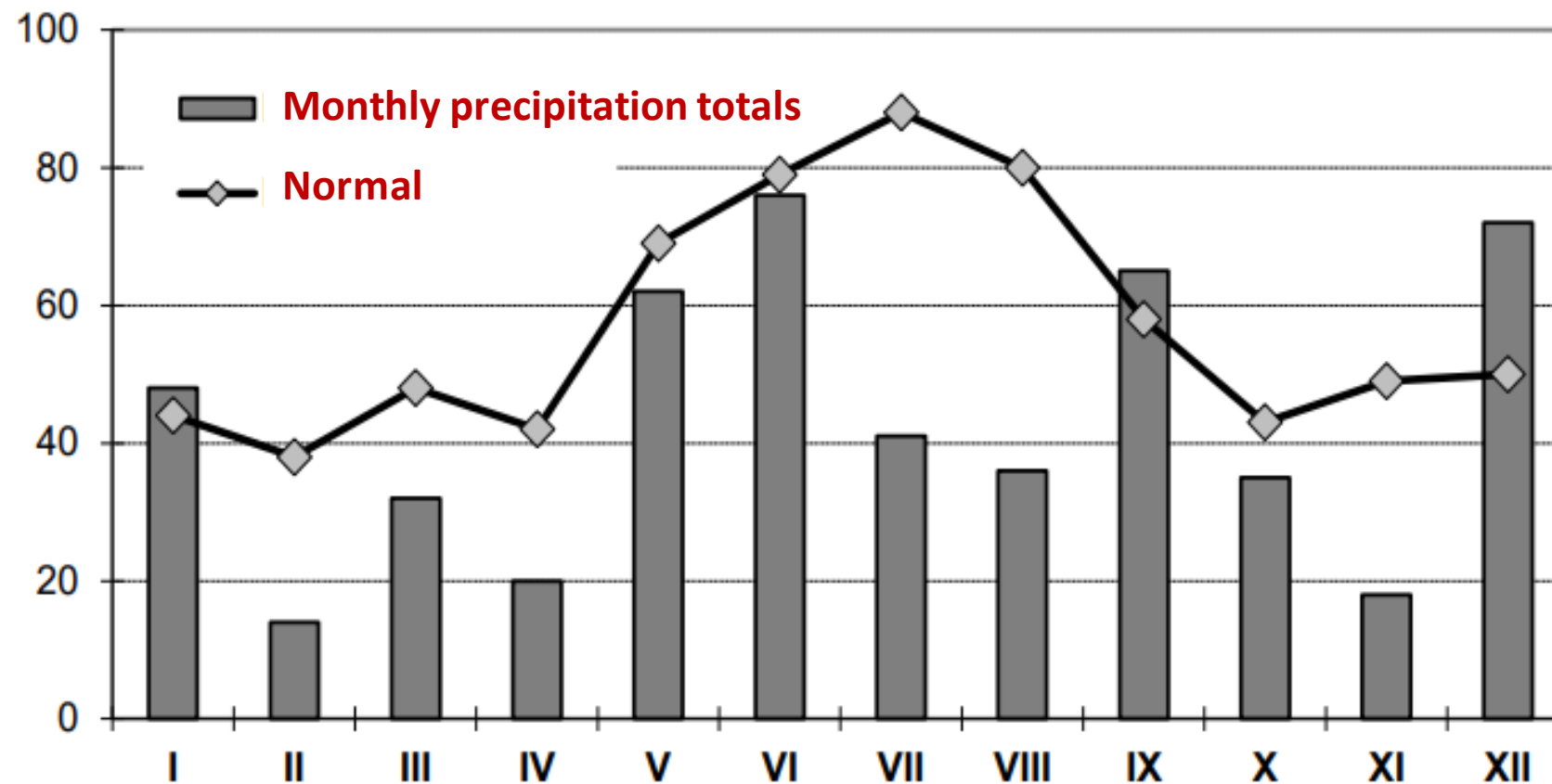


VERZE 2024-01-04 LICENCE CC BY 4.0
více info na faktaoklimatu.cz/teplota-cr

zdroj dat: ČHMÚ



Monthly average precipitation 2018



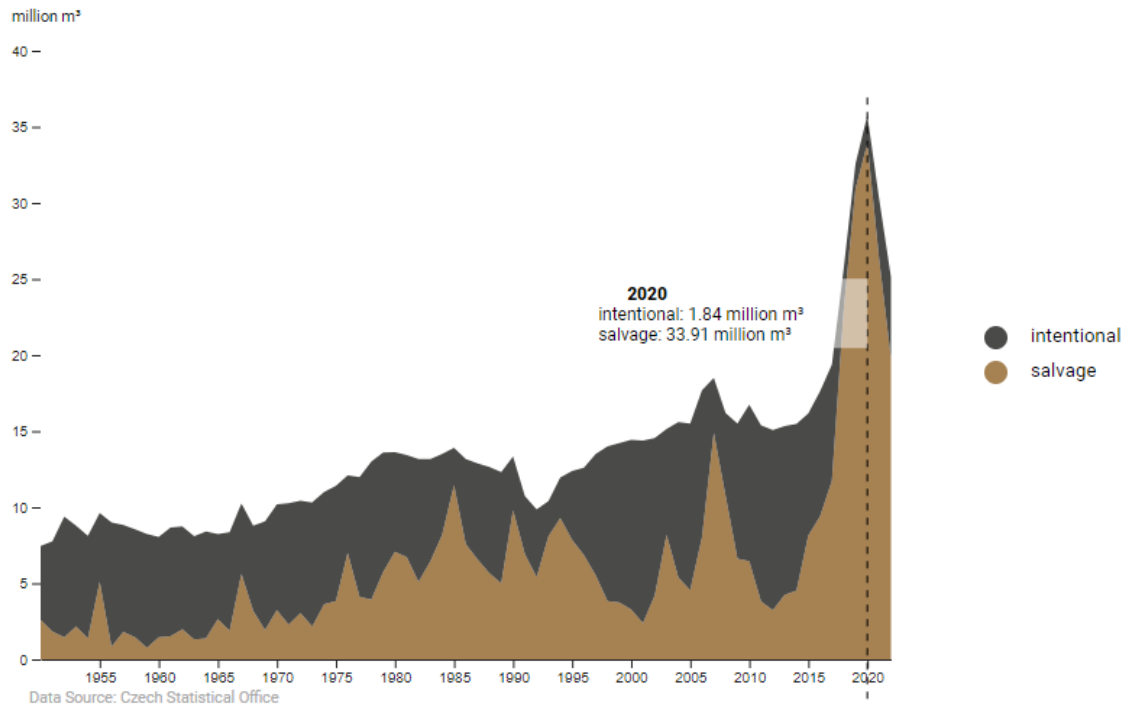
State of forests



Bark beetle calamity

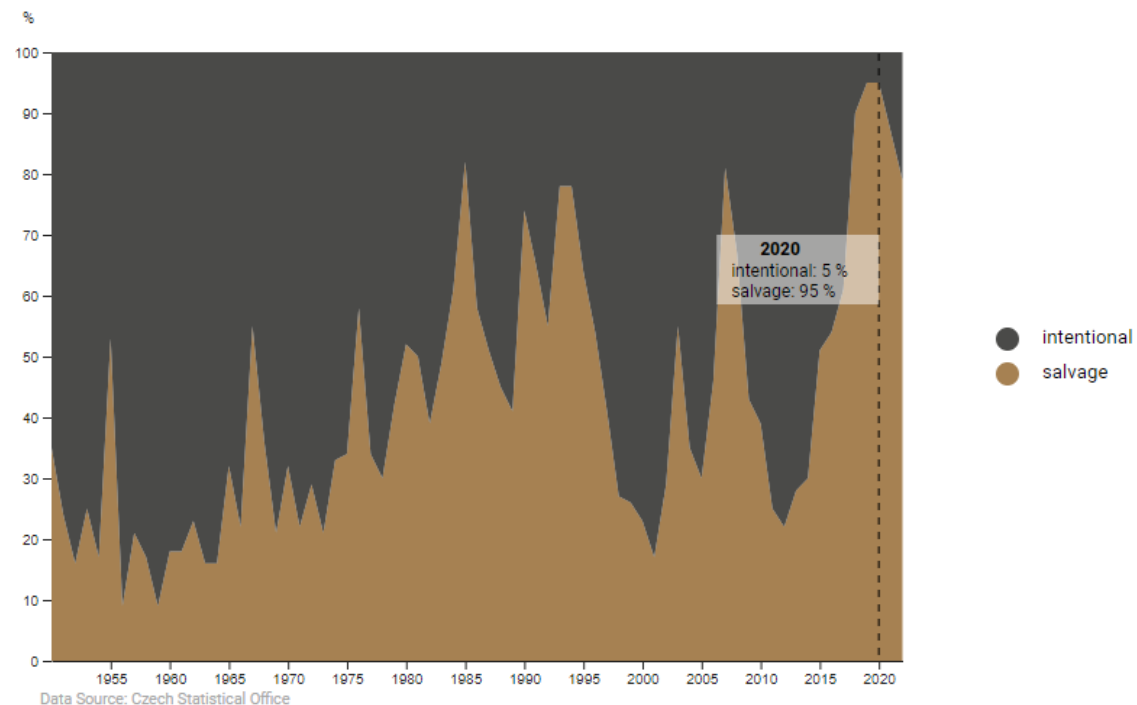
Time series

Removals (intentional, salvage)



Time series

Removals (intentional, salvage) - proportion

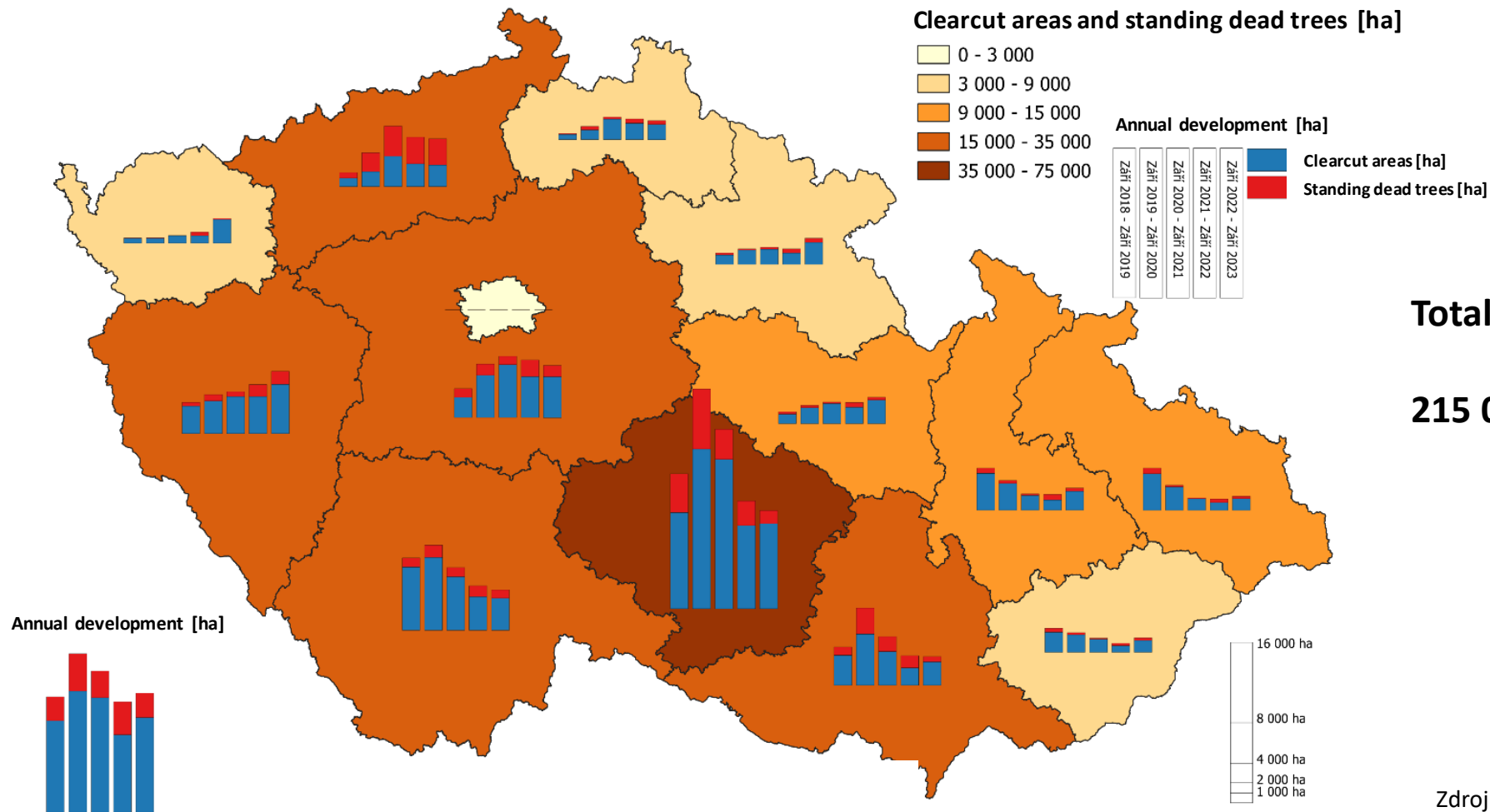


Zdroj: [Facts on Forest https://info.uhul.cz/](https://info.uhul.cz/)



Bark beetle calamity

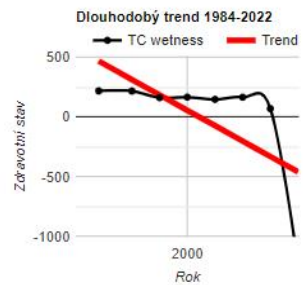
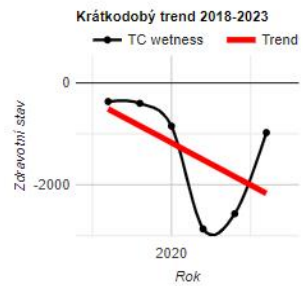
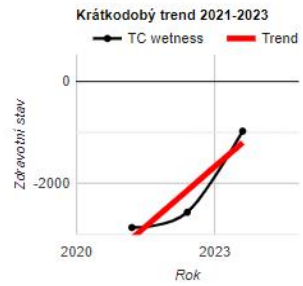
The development of clearcut areas and standing dead trees in predominantly coniferous stands:
September 2018 – September 2023 in the Regions



Zdroj: Forest Management Institute Czech Republic

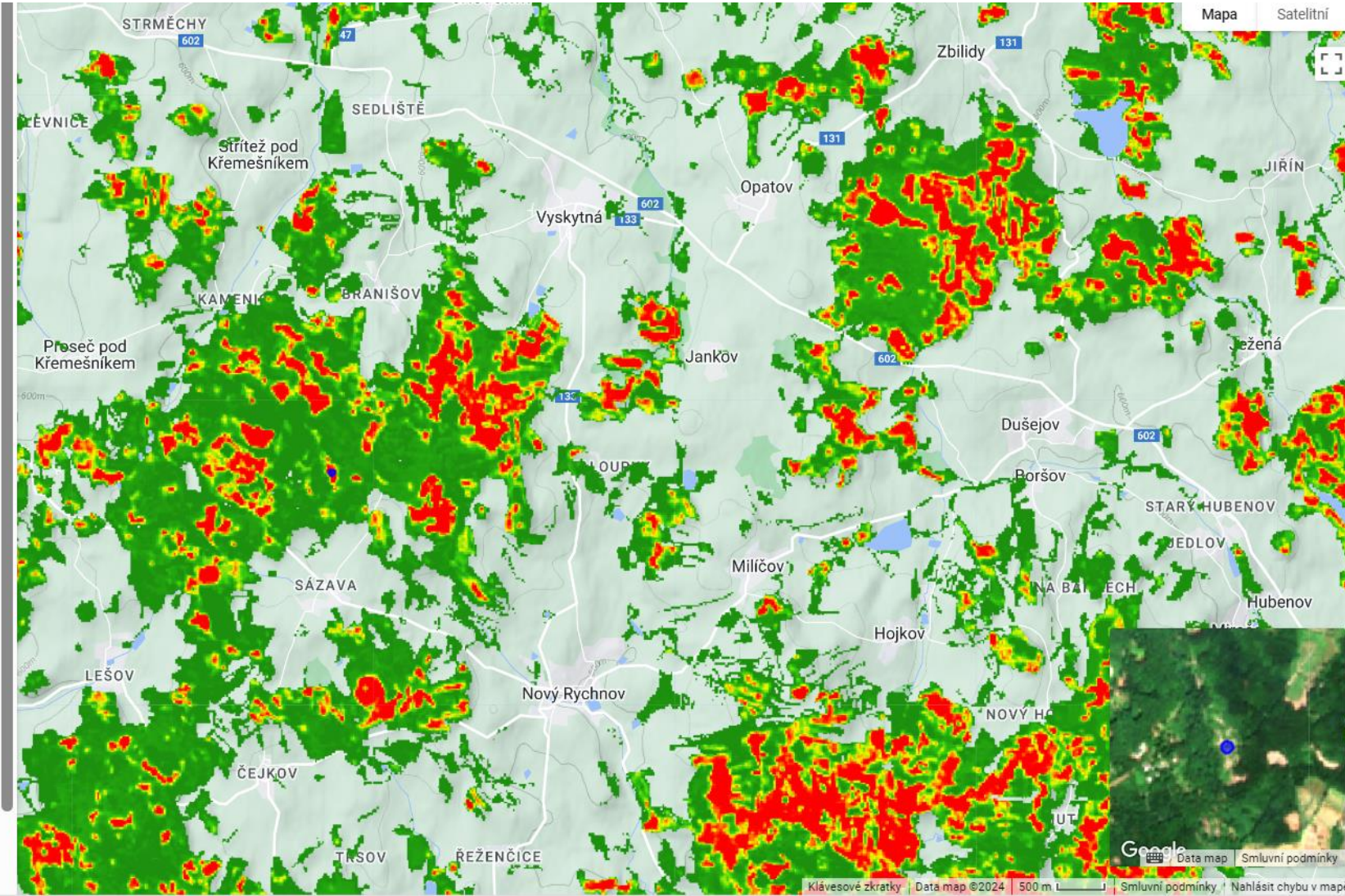


Trends in forests health



Informace o zkoumaném pixelu:

49.404° severní šířky



Zvolte oblast zájmu:

Celkový pohled

Zobrazit vrstvy:

- Trendy zdravotního stavu lesů
- Podkladový snímek Sentinel-2 (léto 2023)

Zvolte typ trendů:

Trendy 2018 - 2023

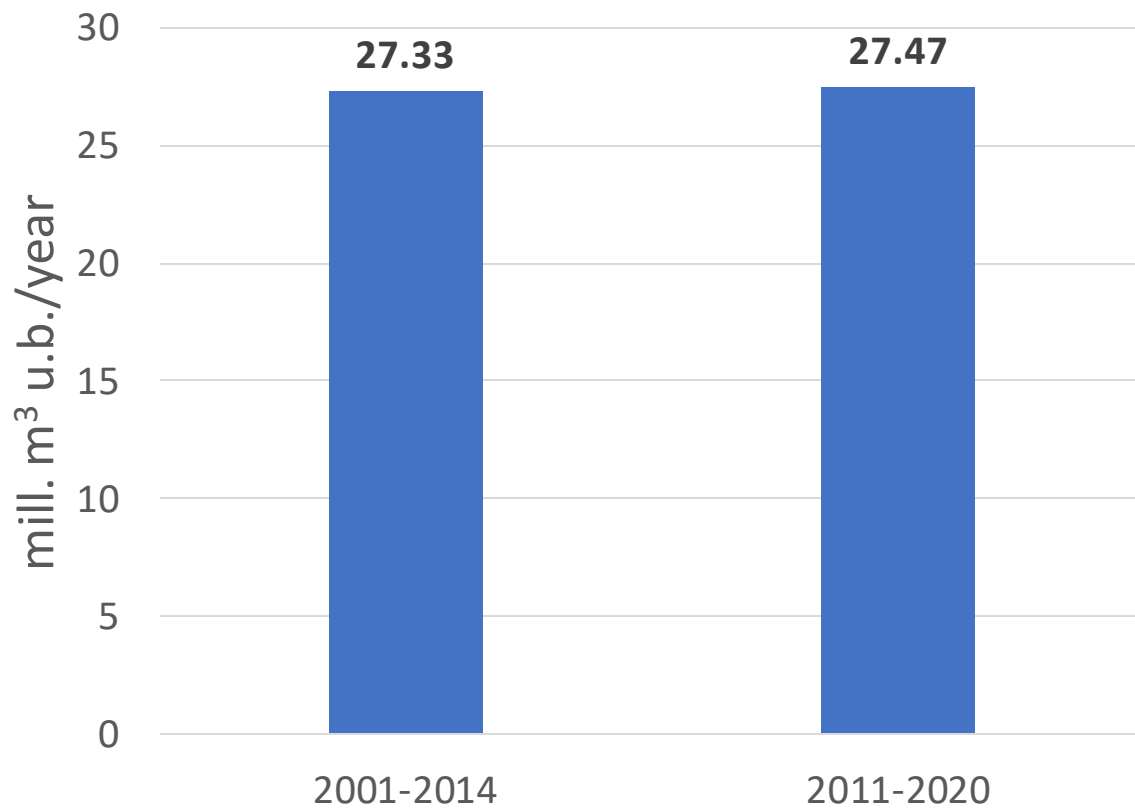
Legenda:

- Significant deterioration**
- Moderate deterioration**
- Stable state**
- Improvement**

Zdroj: trendy.uhul.cz



Increment 2001-2020



Change of growing stock 2011-2020

Tree species group	mill. m3 u.b./year
Coniferous	- 3,59
Non-coniferous	+ 4,03

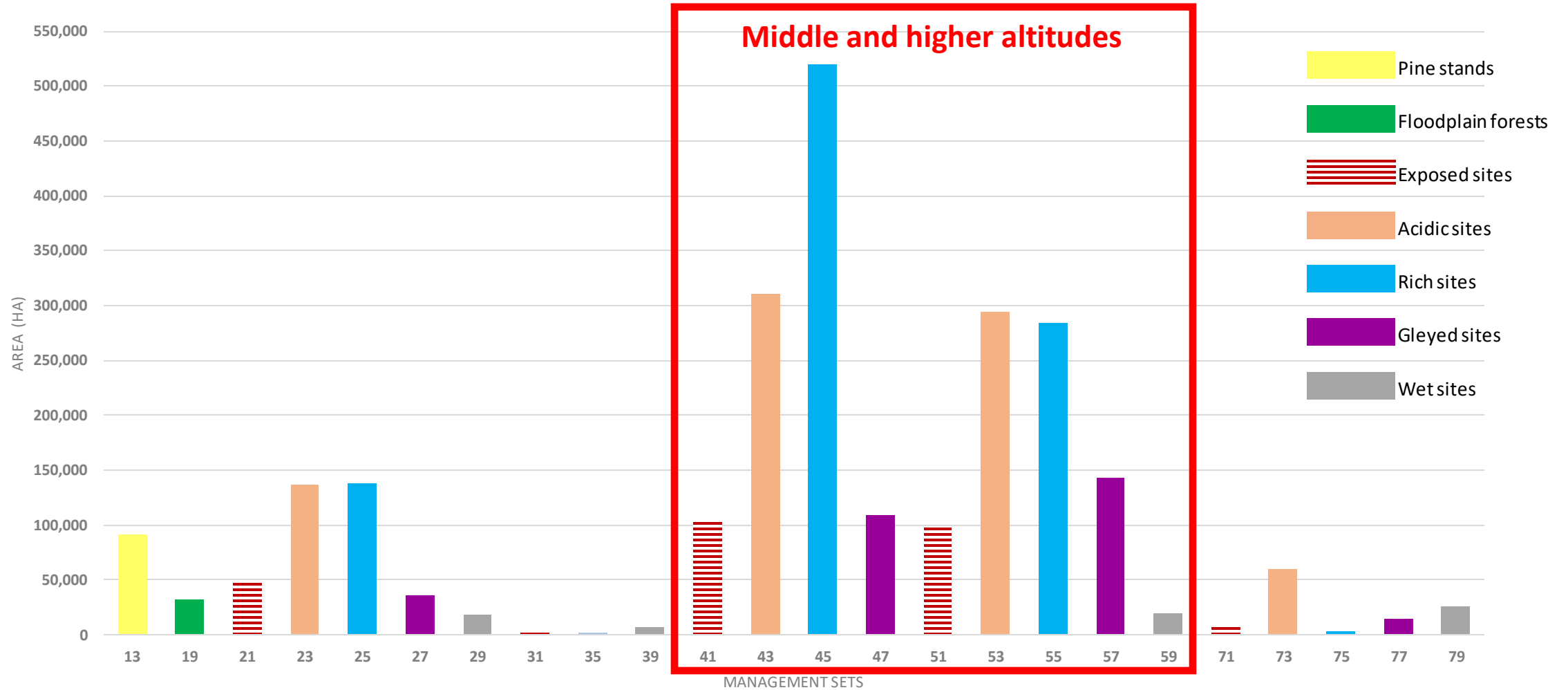
Adaptation and policy measures



Change of tree species composition

- The change of the tree species composition has been supported by the government **since 1996**, based directly on Forest act No. 289/1995
- A minimum share of soil improving and stabilizing tree species for stand regeneration has been one of the binding provisions for forest owners with more than 3 ha of forest land.
- The minimum shares and main general forest management practices were prescribed for each **management set** (site conditions and altitude zones) in the Decree No.83/1996
- The forest owner shall be entitled to partial reimbursement by the state of any increased costs of planting this minimum share.
- **Primary objective** - enhance stability and soil conditions of Czech forests

Areal representation of management sets

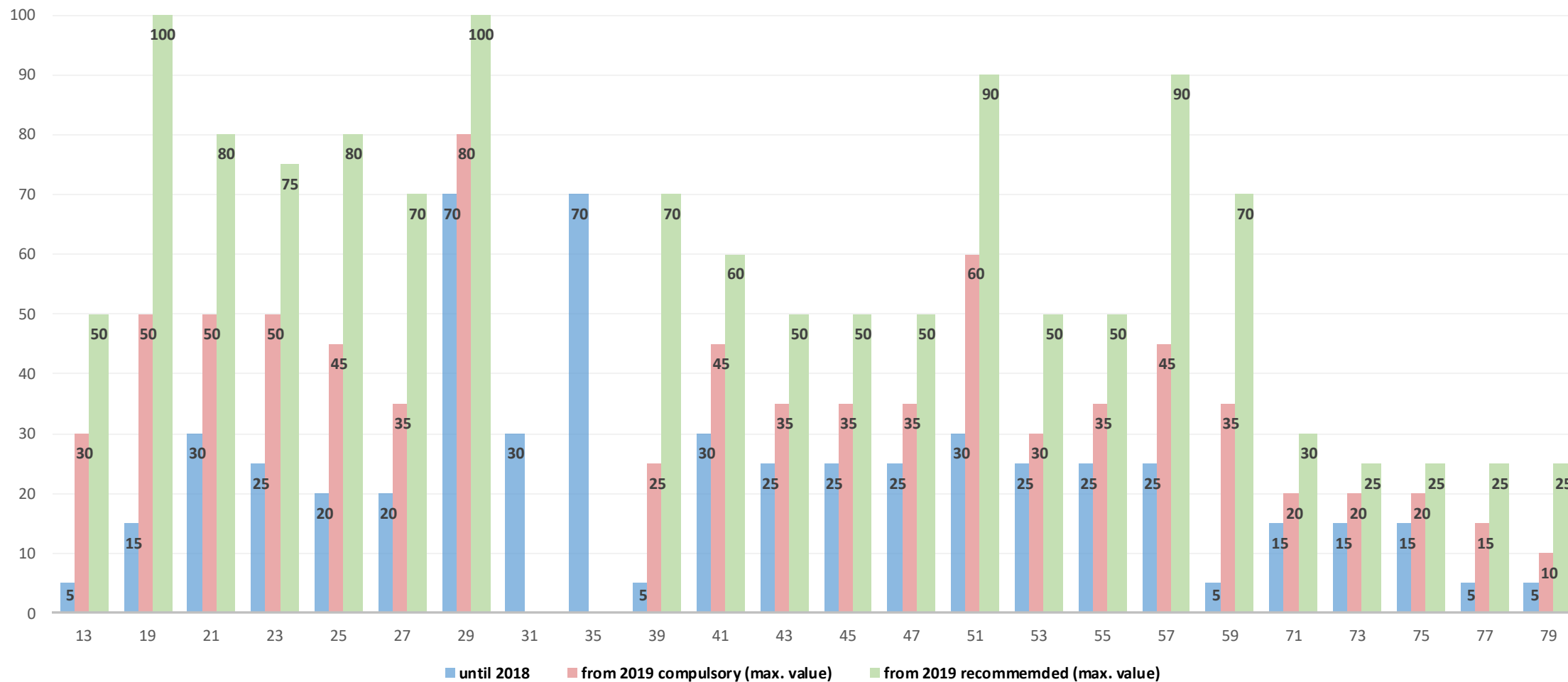


New decree No. 298/2018 – valid since 1.1.2019

Main changes according to this decree are followed:

- The minimum share of soil improving and stabilizing tree species has been increased significantly.
- The number of soil improving and stabilizing tree species for particular sites, which are financially supported, has been significantly enlarged.
- A seeding of preparatory and pioneer tree species, which were newly defined, is also financially supported.
- Rotation age of threatened spruce stands have been lowered.

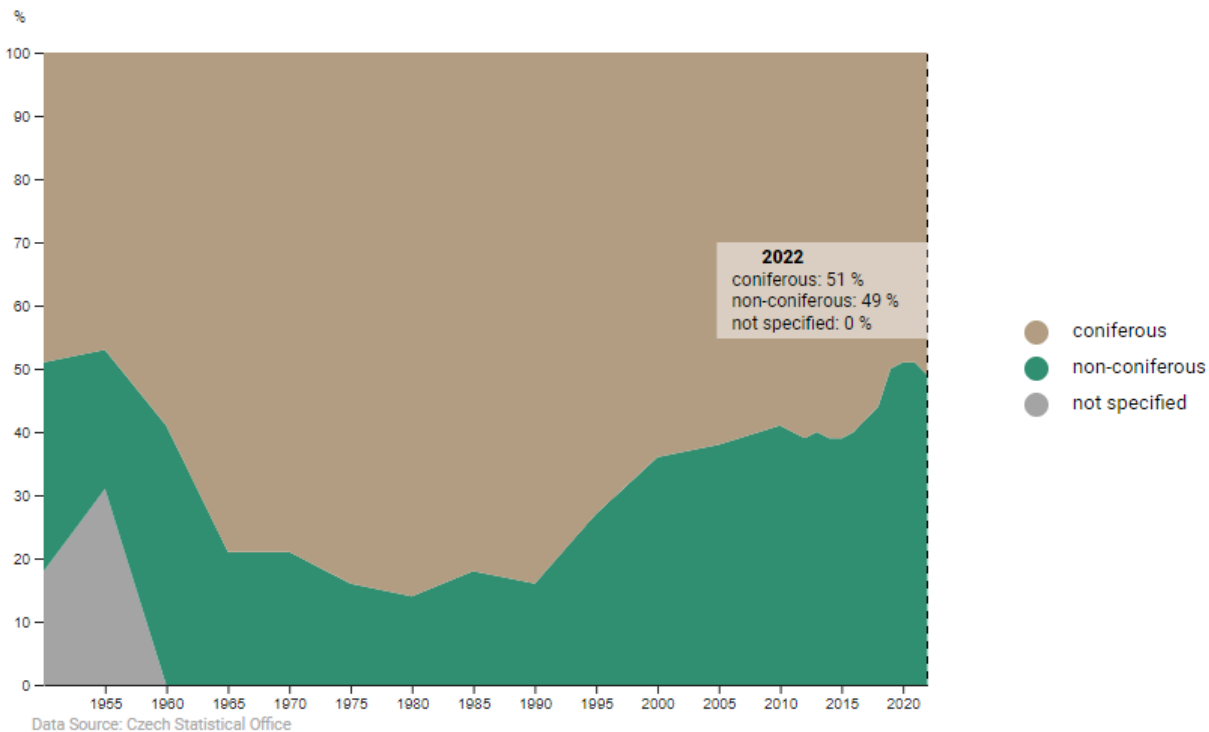
Minimum share of soil improving and stabilizing tree species - Decree No.298/2018



Adaptation and policy measures

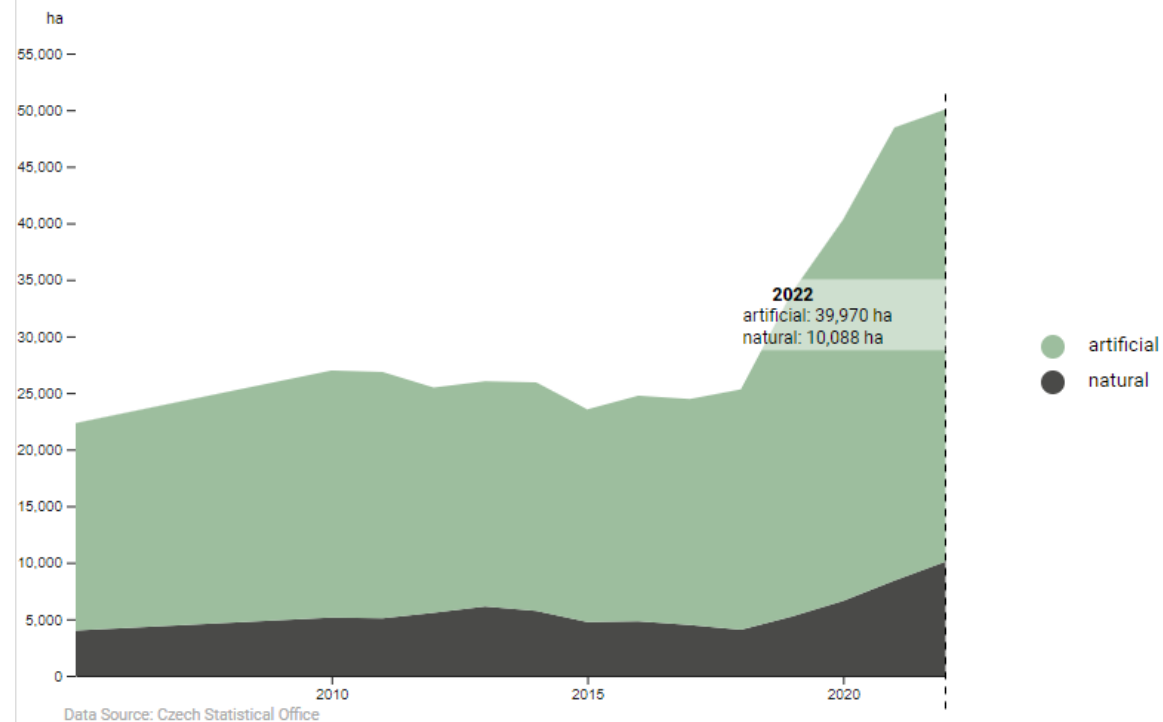
Time series

Reforestation (coniferous, non-coniferous) - proportion



Time series

Reforestation (artificial, natural) - area



Zdroj: [Facts on Forest https://info.uhul.cz/](https://info.uhul.cz/)



Care for genetic resources

- **National Program on Protection and Reproduction of Forest Tree Species Gene Pool 2014 – 2018, 2019 - 2027**
 - ✓ National seed bank of forest tree species (conservation of seeds for 20-30 years)
 - ✓ National explant bank of forest tree species (cryoconservation of explants)
 - ✓ Financial support conditioned by suitable management and collection of seeds material

Key measures

- **Enhancement of ecological stability of forest stands and their resistance to biotic and abiotic agents, using suitable tree species composition and spatial composition (thickness and height differentiation of stands)**
- **Using of preparatory and pioneer tree species**
- **Care for genetic resources to ensure sufficient amount of quality seeds**
- **Test tree species from southern countries (e.g. oaks, turkish hazel)**
- **Financial support of forest owners for the realization of tree species composition change**

Thank you for your attention!

Michal Synek

Forest Management Institute Czech Republic

Copyright: 23 May 2024, Michal Synek, all rights reserved. For reproduction permission and all other issues, please contact Synek.Michal@uhul.cz

