

**Workshop „Climate Change Guidelines for Forest Managers“**

**Forest Management and Climate  
Change  
in the Czech Republic**

Bialowieza, 21<sup>th</sup> to 23<sup>th</sup> April 2015

# Outline

- 1. National Forest Programme II**
- 2. Climate Change and Forest Management**
- 3. Climate Change and Research**
- 4. Climate Change and State subsidies**
- 5. Climate Change and EAFRD subsidies**

# National Forest Programme II

## Key action 6 - To alleviate impacts of expected global climate change and extreme meteorological phenomena

- 6.1. To grow diversified forest stands with the greatest possible employment of natural processes, varied species composition, natural regeneration and variability of silvicultural practices.
- 6.2. To prevent soil degradation and thus maximize the amount of carbon fixed in the soil.
- 6.3. To promote forest species and ecotypes resistant to climate changes.
- 6.4. To optimize carbon cycling in soil horizons, growing stock and wood products.

# National Forest Programme II

- 6.5. To apply measures maintaining high and stable wood mass production.
- 6.6. To extend legal time limits for the reforestation and establishment of stands in line with the natural forest regeneration.
- 6.7. In respect of forest typology, to assess possible changes of forest altitudinal vegetation zones (FAVZ).
- 6.8. To focus the rules of public aid on the support of adaptive measures mitigating the impacts of climate change.
- 6.9. To foster the environment-friendly afforestation of farmlands.
- 6.10. To shorten the rotation period in woody species most jeopardized by climate change.

# National Forest Programme II

- 6.11. To support cultivation of stands with fast growing tree species on agricultural land
- 6.12. To provide for the management of low forest and coppice-with-standards.

**Every sub item have its own clarification of precautions which are necessary to its fulfillment:**

- **legislation precaution**
- **finance precaution**
- **organizational precaution, research, edification, consultancy**

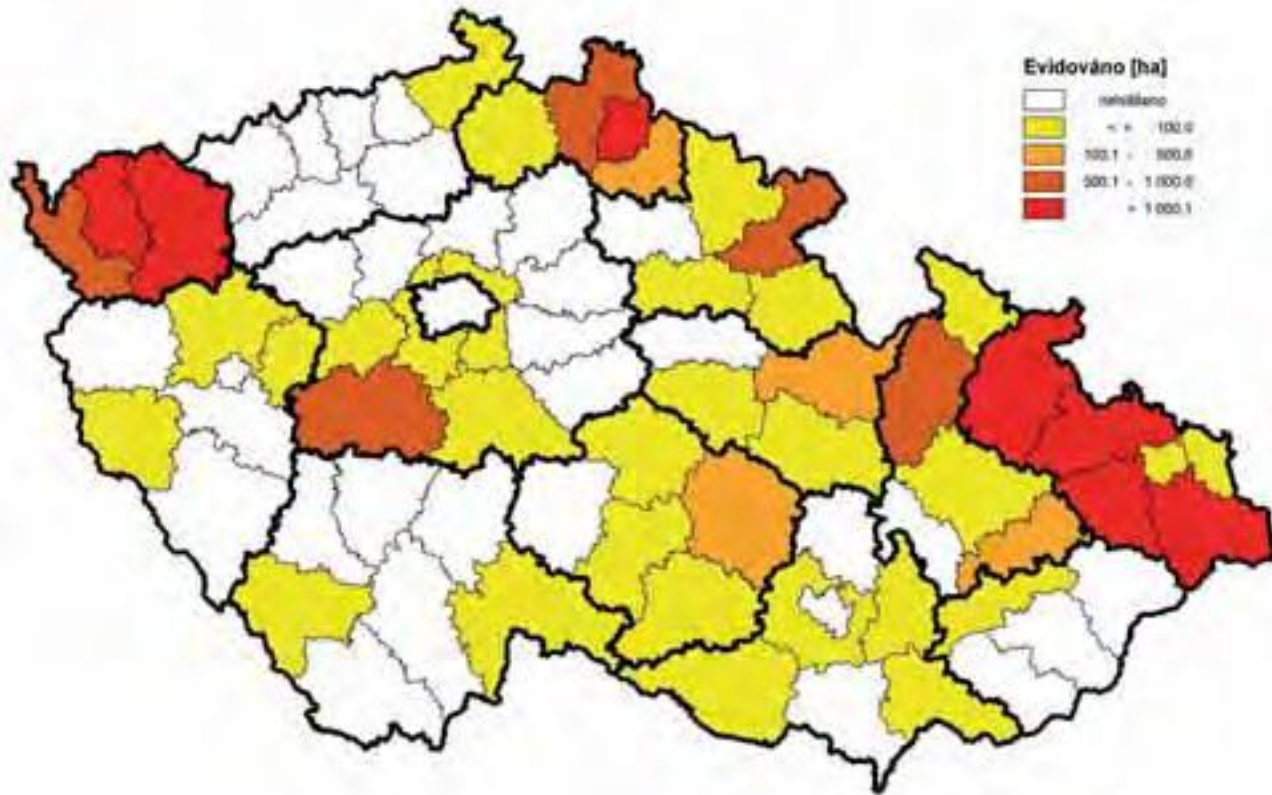
# Climate Change and Forest Management

## 1. Long-term decline of spruce stands in the north-east of the Czech Republic and its spread

Precipitation deficiency

High

Soil m



# Climate Change and Research

- 1. Thinnings in stands affected by long-term decline**
- 2. Tree species compositions change**
  - conversion of forests towards mixed, site-adapted and structurally diverse stands according to forest altitudinal vegetation zones
  - using non-native tree species – Douglas fir (*Pseudotsuga menziesii*), European larch (*Larix decidua*)
- 3. Spread of bark beetles**
- 4. Presumable impact on the growth and mortality of forest stands and production function of the forests**
- 5. Defoliation - ICP Forests**

# Climate Change and State subsidies

## Subsidy from the state budget (from 1995)

- Regeneration of forests affected by air pollution
- Reforestation, establishment of stands and their tending
  - Natural regeneration (soil-improving and stabilizing species)
  - Artificial reforestation (soil-improving and stabilizing species)
  - *Establishment of forest stands*
  - *Forest stand reconstruction*
  - *Tending of forest stands up to 40 years of age*
  - *Establishment of game-proof fences*



# Climate Change and State subsidies

## National Program on Protection and Reproduction of Forest Tree Species Gene Pool 2014 - 2018

- entry is voluntary
- obligation protect and reproduce genetic resources „in situ“ or „ex situ“ and store samples of genetic resources
- National seed bank of forest tree species
  - conservation of seeds for 20-30 years
- National explant bank of forest tree species
  - cryoconservation of explants

# Climate Change and EAFRD subsidies

- **Forestry-environmental payments**
  - enhancement of forest stands tree species composition
  - support of soil-improving and stabilizing species
- **Regeneration of forests potential after calamities and implementation of preventive measures**
  - wind, snow, fire, floods, erosion
  - drought (from 2014)

**Thank you for your attention !**

Michal Synek

Forest Management Institute Brandýs nad Labem

[www.uhul.cz](http://www.uhul.cz)