Workshop „Climate Change Guidelines for Forest Managers“

Forest Management and Climate Change in the Czech Republic

Bialowieza, 21st to 23rd April 2015
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
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.
• 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
1. Long-term decline of spruce stands in the north-east of the Czech Republic and its spread

- Precipitation deficiency
- Higher temperatures
- Soil nutrients deficiency
- Spruce chlorosis (yellowing)
- Spread of Honey fungus (*Armillaria*)
- Spread of bark beetles (*Ips duplicatus*)
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
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!

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