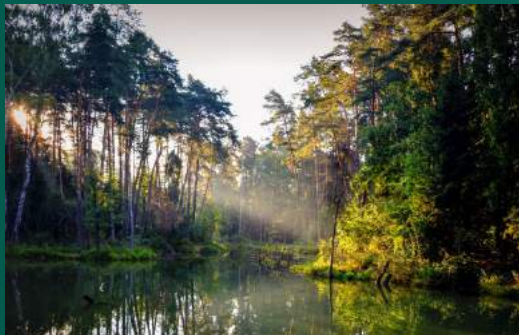




State Forests
FOR FOREST, FOR PEOPLE



Climate change and forest fires in Europe

Polish State Forests

Brussels, 20.03.2019

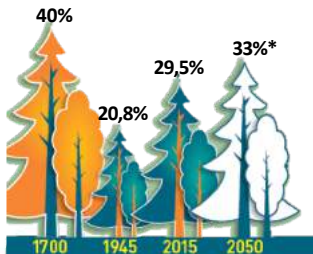


The significance of the Polish forests

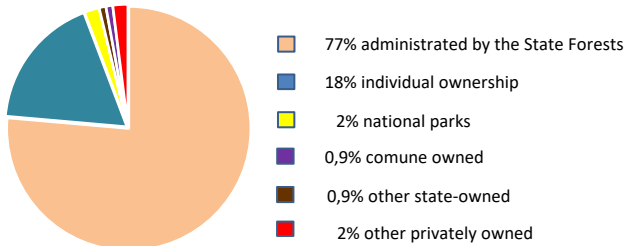
- ❑ Forest area in Poland: 9,4 mln ha
- ❑ Under the management of the SF: 7,4 mln ha
- ❑ Forst cover: ca 30% of the total land area
- ❑ Growing stock of the Polish forests 269 m³/ha
- ❑ Biomass of Polish forests contains 822 milion tonnes of carbon



FOREST COVER

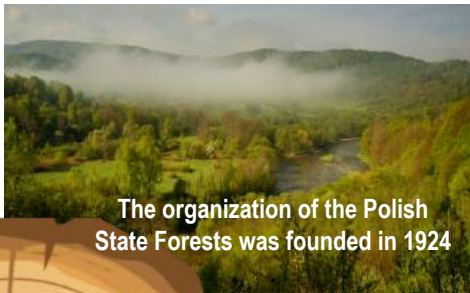


OWNERSHIP STRUCTURE

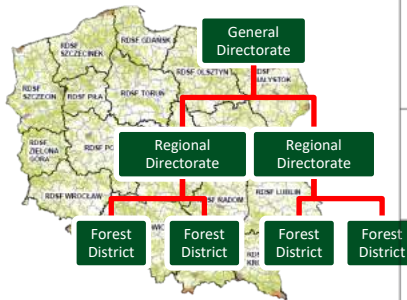
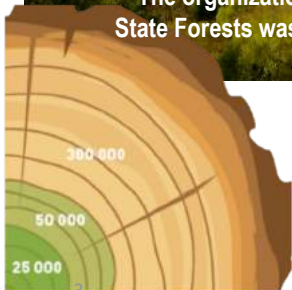




ORGANIZATION OF THE STATE FORESTS



The organization of the Polish State Forests was founded in 1924



- Employees of the State Forests**
- Workers in outsourced forest services, working in timber harvesting, planting,**
- Employees of sawmills, papermills, furniture industry and building materials**

| DOMINANT TREE SPECIES IN THE STATE FORESTS | |
|--|--|
| pine 60.3% | oak 8.2% |
| birch 6.7% | spruce 6.2% |
| beech 6.1% | alder 4.8% |
| fir and other conifers 4.0% | poplar and other broadleaved 3.7% |



Climate Change is an issue!

- ✓ “Effective and progressive response to the urgent threat of climate change”
- ✓ Global temperature rise this century “well below” 2 °C above pre-industrial levels (+ efforts for 1.5 °C).
- ✓ “Achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century”

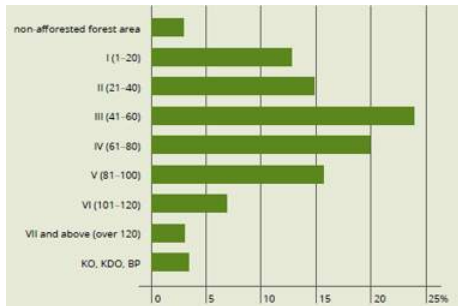
Paris Agreement (2016)

IT'S ALL
ALREADY
HERE



MODERN SILVICULTURE

AGE STRUCTURE



- ❑ The average forest age is over **60 years**
- ❑ Stands representing **age classes III and IV** prevail in the forest structure and cover **24.9%** and **19.4%** of the forest area

- ❑ We plant **500 mln trees** per year



- ❑ We are enhancing the importance of natural renewals – **their share in the last six years is 13,8%**.
- ❑ The nurseries produce annually **759 million of seedlings** (**53 million seedlings** are being produced in container nurseries)



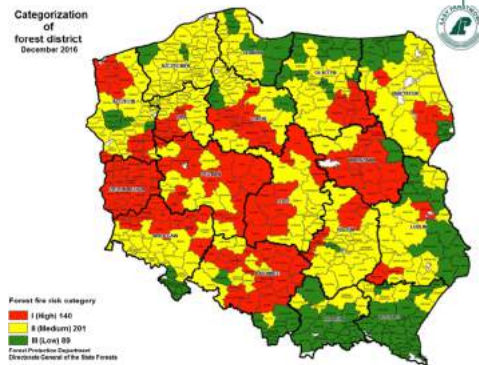
Fire prevention and suppression integrated into SFM - 1/2

- ✓ Fire risk categorization
- ✓ Forecasting and early detection



666 lookout towers (257 with cameras)

Categorization
of
forest district
December 2016





Fire prevention and suppression integrated into SFM – 2/2

- ✓ Alarm and dispatch communication network
- ✓ Equipment and infrastructure
- ✓ Prevention: information and educational activities

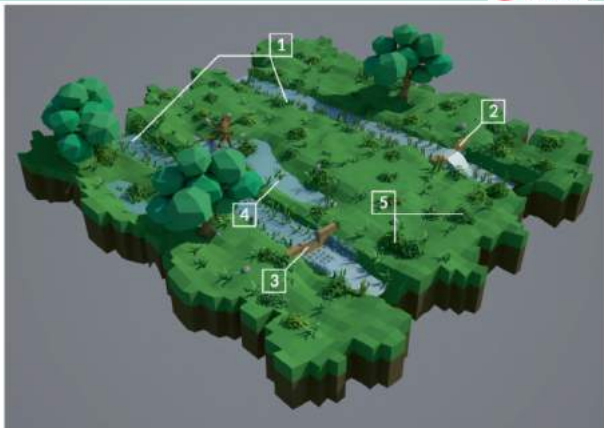


„Aware of the threat” campaign
by State Forests



Small retention in lowland & mountain areas 2016-2022

- ✓ Renaturalization of wetlands, streams, bank-side reservoirs
- ✓ Construction, reconstruction or restoration of 2300 small retention reservoirs and other hydrotechnical facilities
- ✓ Storage of additional 2.5 million m³ of flood or rain water
- ✓ The total cost of 120 million USD from the

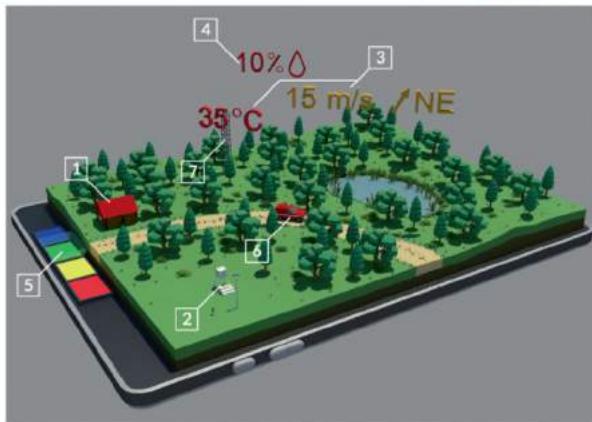


RENATURALISATION OF WETLANDS

This is a process of restoring drained (via a damaged drainage system) wetlands to a good condition, through the construction of small water facilities on old canals and ditches [1]. Barrages built in artificial watercourses [2] impound water to the required level, and thanks to water gates [3] it is possible to regulate and maintain a specified (often variable in time) water level in the ditch. Thanks to these measures, soil retention increases, the water level in a wetland rises [4], abundant vegetation, characteristic of this habitat, grows [5], and water and marsh birds thrive.

Prevention, counteracting and reduction of threats related to forest fires 2016-2019

- ✓ Construction and modernization of 70 fire observation posts
- ✓ Advanced equipment to locate and detect fires and upgrading alarm & command points
- ✓ Construction of 11 meteorological stations
- ✓ New 67 patrol and firefighting vehicles
- ✓ Total cost of 11 million USD from the State Forests and EU



PAD

The alarm and command points (PAD) ^[1] receive data from meteorological stations ^[1] such as temperature, humidity, speed and wind direction ^[1]. The automation of meteorological stations affords an ongoing insight into all the parameters needed to analyse the fire risk to the forest. In combination with the information on the moisture content of the pine litter ^[4], the degree of forest fire hazard is determined, according to the 4-step scale: 0 – blue, no danger; 1 – green, low danger; 2 – yellow, medium danger; 3 – red, high danger ^[1]. In the case of a considerable threat in the area, ground patrols ^[5] are dispatched. A vehicle in constant contact with the PAD and fire observation posts ^[7] can respond more quickly to any danger.



Conclusions

- ✓ Forests have a central role in Climate Change mitigation but adaptation, prevention and preparedness are a key issues!
- ✓ Only Sustainable Forest Management can bring long-term climate benefits from healthy and resilient forests
- ✓ EU policies need to be coherent:
 - CAP
 - LULUCF
 - Bioeconomy & Circular Economy
 - Landscape planning
 - Biodiversity & Natura 2000

EU forests are a growing resource but must be resilient



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Thank you!

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