



# **Kuresoo bog restoration project in Soomaa NP**

**Kaupo Kohv**



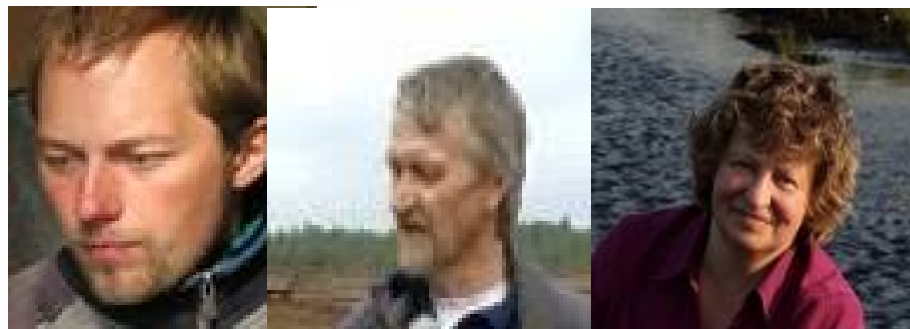
**First holistic restoration project of degraded bog communities in Estonia**



**2005 – idea was formulated by Estonian Fund for Nature (ELF)**



**2006 – 2007 – ELFs Interreg project produced detailed project for restoration activities**



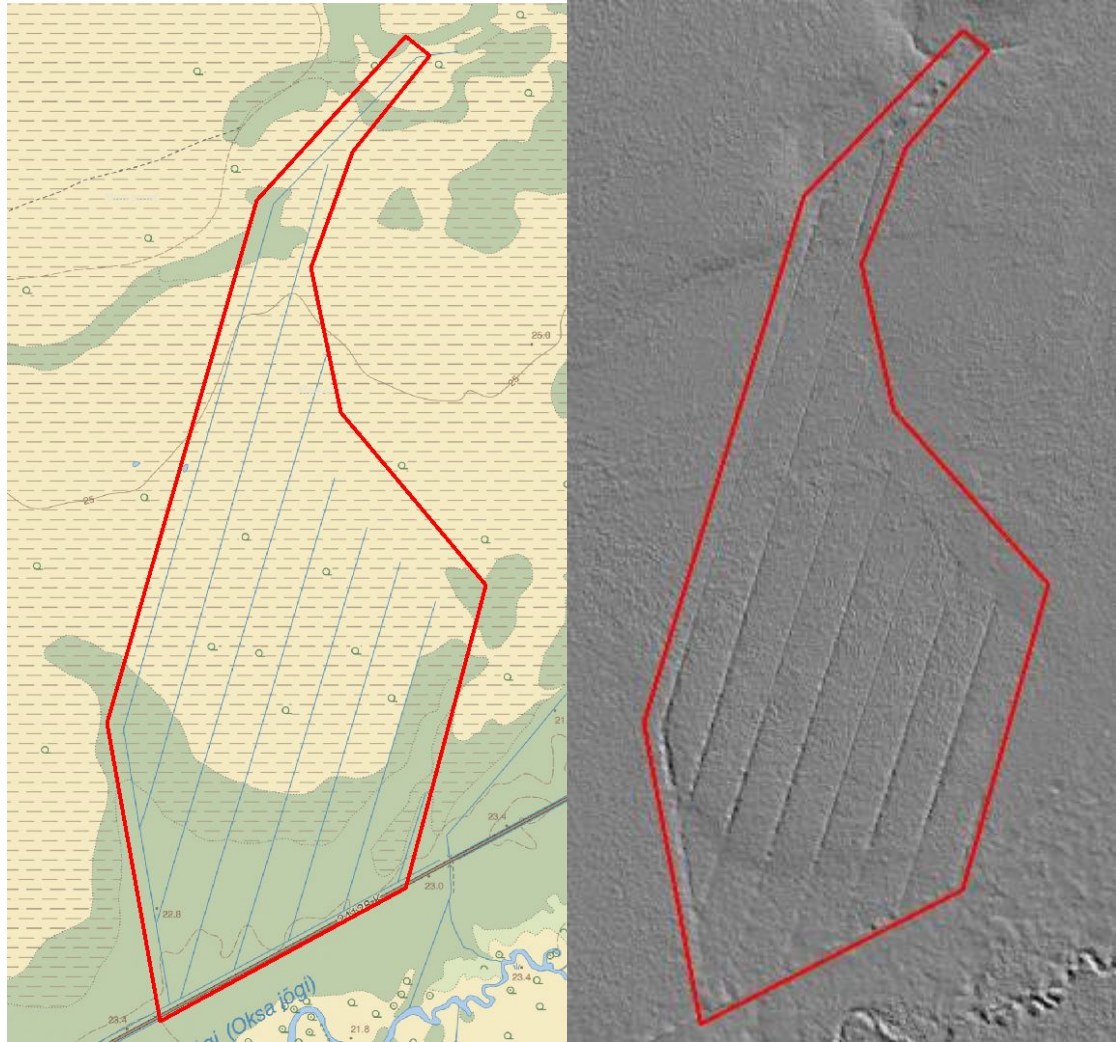
**2010 – 2013 State Forest Management Centre implemented the project. Actions were funded by EU Regional Development Fund (ERF)**



- **The aim – rehabilitate functional mire habitats. Restore active peat accumulation process.**

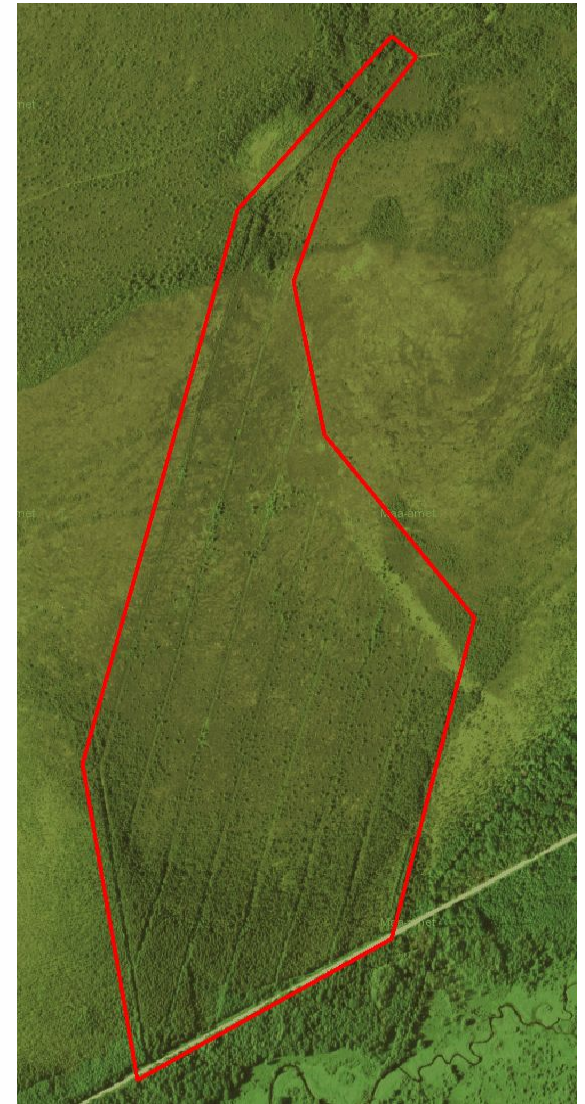


- Area comprises transitional mire, treeless and treed raised bog; raised bog slope.
- Drainage was established in 1971 for peat mining



## Conditions before the project

- Waterlevel 40-50 below the ground;
- Residual peat layer up to 2,8 m;
- Peat accumulation was stopped, Sphagnum cover was stochastic and decreasing;
- Vegetation was heavily influenced by drainage, forest cover and volume was increased.



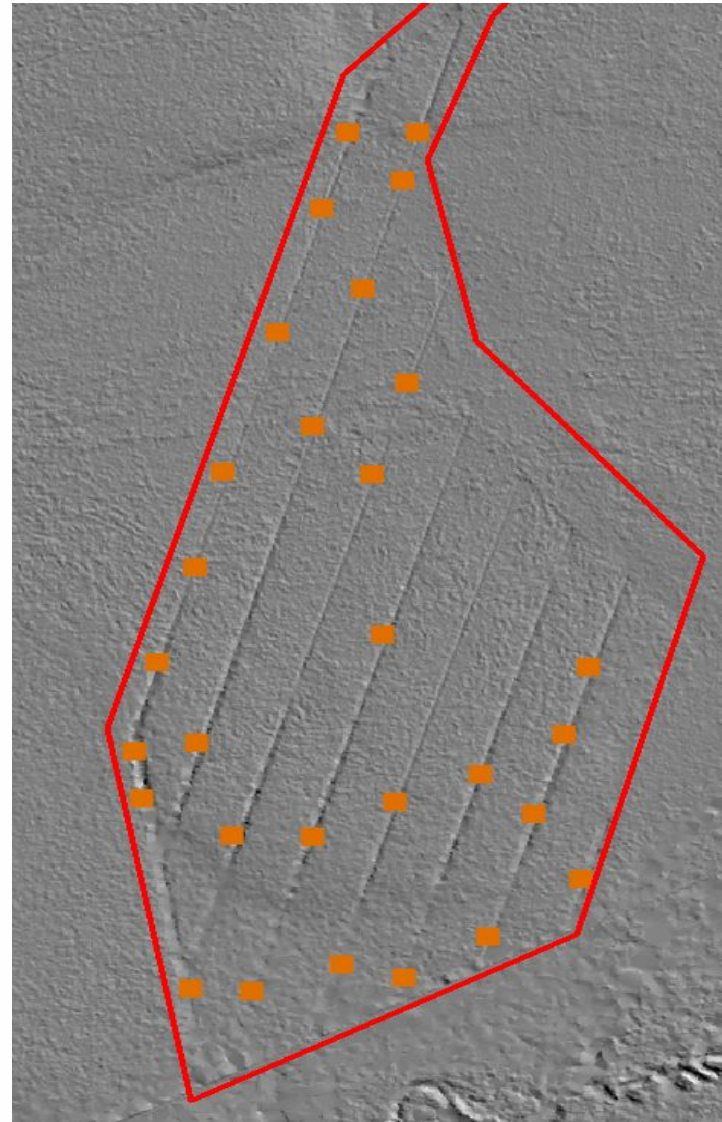


## Forest cover treatment

- Cutting all trees (14,3 ha)
- Cutting trees higher than 3 m (12,7 ha)



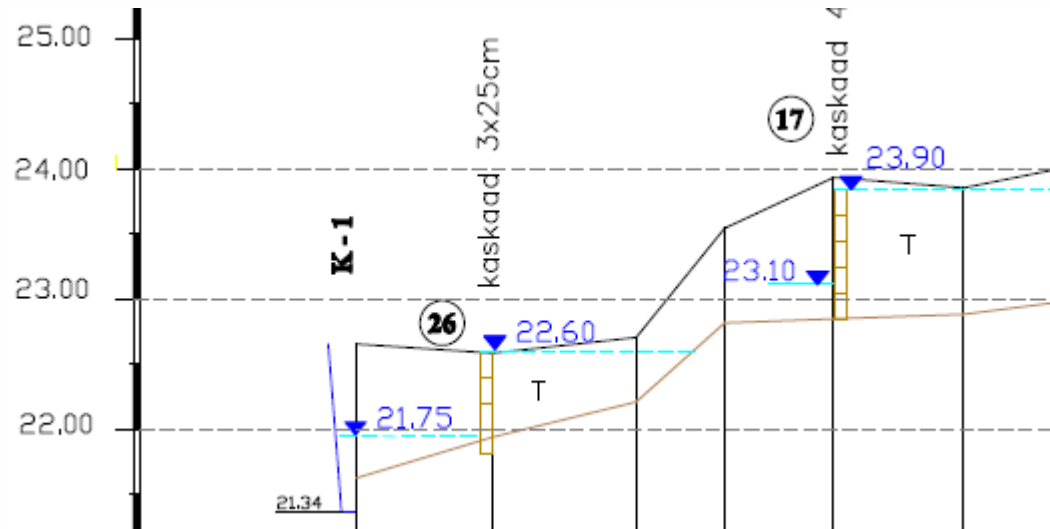
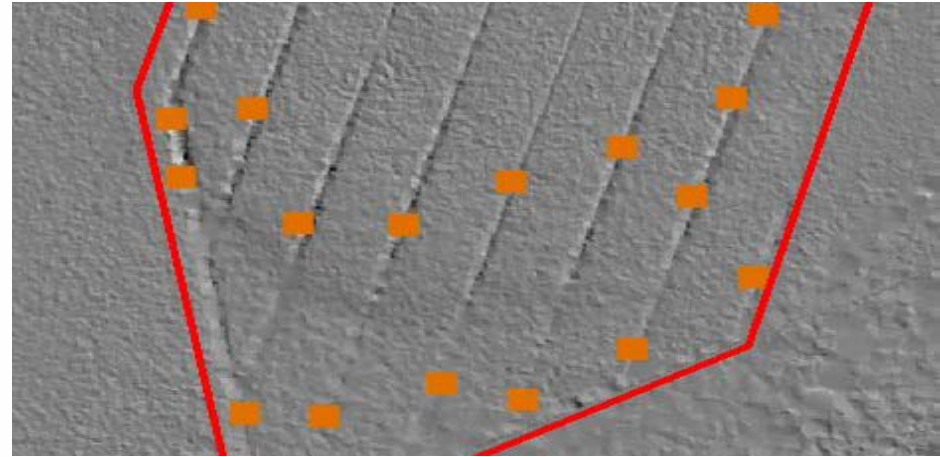
## 29 dams from logs, peat and geofabric with different constructions



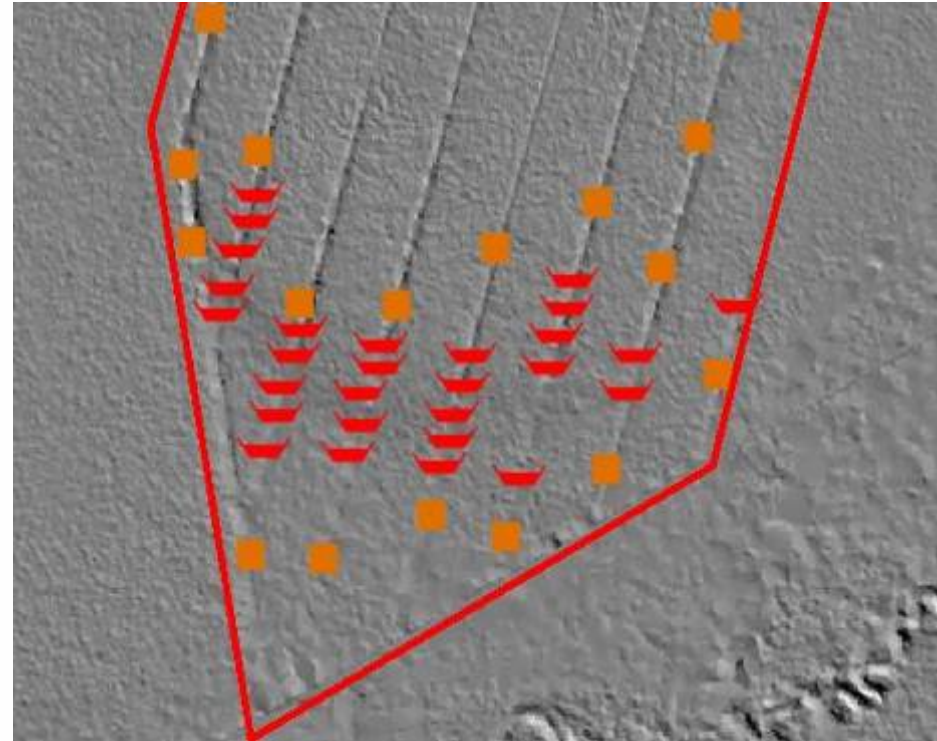


Dams on bog slope were not planned

Mistake appeared after planned dams were built!



28 additional peat dams were added on the slope



**Peat mounds along ditchbanks had to be leveled totally or after 10m interval.**

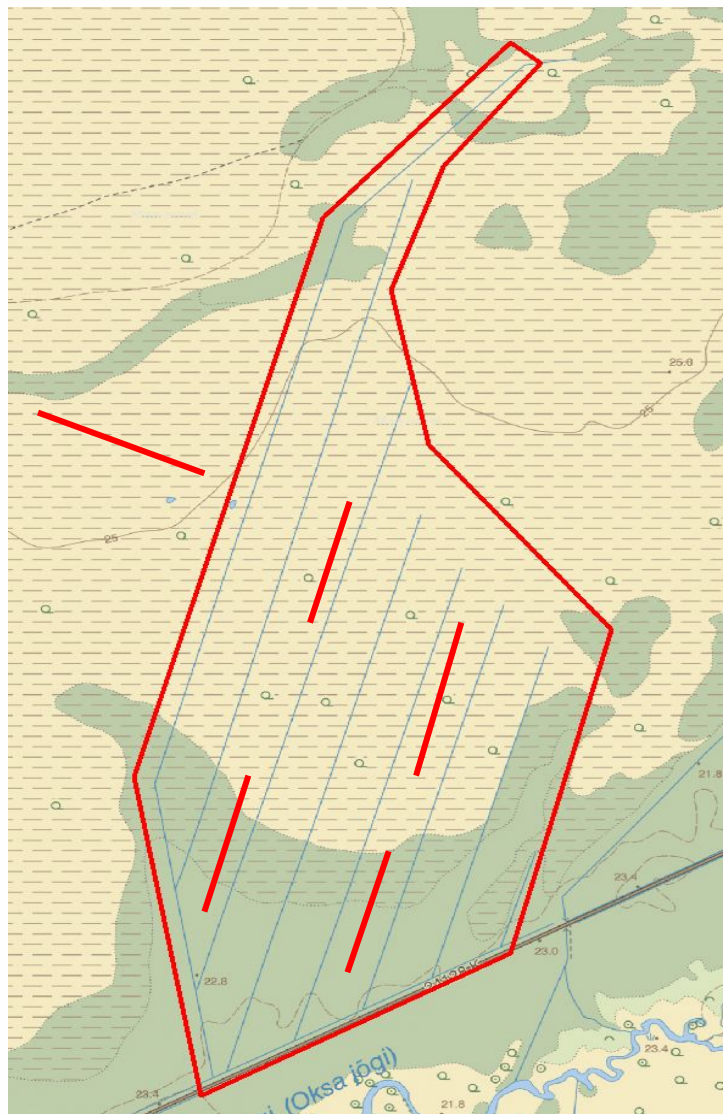
**Was done on ditches inside the cutting treatments**



Monitoring design and benchmark measurements were done by Mati Ilomets working group in 2007

■ Monitoring is based on transects

■ Repeated measurements are planned for 2014



**Work was finished 2013**

**Most of the dams are functioning properly. Some timber dams are not!**

**Reasons:  
extreme dry summer? vertical  
infiltration through ditch bottom;  
infiltration through dams?**



## Peat mounds on ditchbanks

**Mounds were leveled, but they should have been pushed into the ditches!**

**All the ditchbanks should have been cleared from trees and leveled.**



**Peat cover is increasing**



**Final conclusions can be drawn after repeated measurements on monitoring transects.**



## Planning

Initial planning and benchmark measurements (ELF's Interreg project)  
– 66 370 €

Undating the project and additional planning (SFMC) - 2760 €  
(+VAT)

**SUM – 69130 €**

## Implementation

Cutting treatments – 56457 €(+VAT)

Digging, building dams etc – 77979 €(+VAT)

**SUM 134 436 €**

**TOTAL – 203 566 €**



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# Income from timber sales - 1333 m<sup>3</sup> – 28 425 €(+VAT)

