

What ecosystem services does forest produce?

EU Forest Academy

22.11.2018

Inka Musta

Senior Manager, Environment

UPM-Kymmene Oyj

UPM Wood Sourcing and Forestry

- Responsible for securing wood supply from sustainably managed forests to UPM's mills in Northern Europe
- Manages 570,000 hectares of company owned forests, all certified
- Provides wide range of sustainable forestry services to private forest owners
- Develops modern and sustainable forest management practices
- 20,000 wood trades yearly with private forest owners

Finnish Forests and Forestry 1/2

- More than 70 % of Finland's land cover is forested
 - One of the most heavily forested countries in the world
- 12 % of forests are protected
 - One of the highest percentages in Europe
- Average size of logging site is less than 2 hectares and only ~ 2 % of commercial forests are managed yearly (incl. thinning and regeneration fellings)
 - Forestry is very small-scaled
- Every time after a regeneration felling new forest is established to the same site
 - Forest remains as a forest over its life cycle
 - Forestry doesn't cause land use change

Finnish Forests and Forestry 2/2

- Forestry is based on growing domestic tree species in their natural habitats
 - Artificial regeneration with seeds or seedlings is always supplemented by natural regeneration
- Natural characteristics of forests are maintained with natural management:
 - Leaving retention trees
 - Saving dead/decaying wood
 - Favouring deciduous trees
 - Watercourse buffering zones etc.



Forest ecosystems remain largely similar with natural forests



What are ecosystem services?

“Ecosystem services are the benefits people obtain from ecosystems”

- Ecosystem services can be divided into four categories:
 - Regulating services
 - Maintenance services
 - Production services
 - Cultural services



While producing wood, forest also provides many other ecosystem services

Regulating services:

- Carbon sequestration
- Purification of air and water
- Reduction of floods and erosion
- Pollination services etc.

Production services:

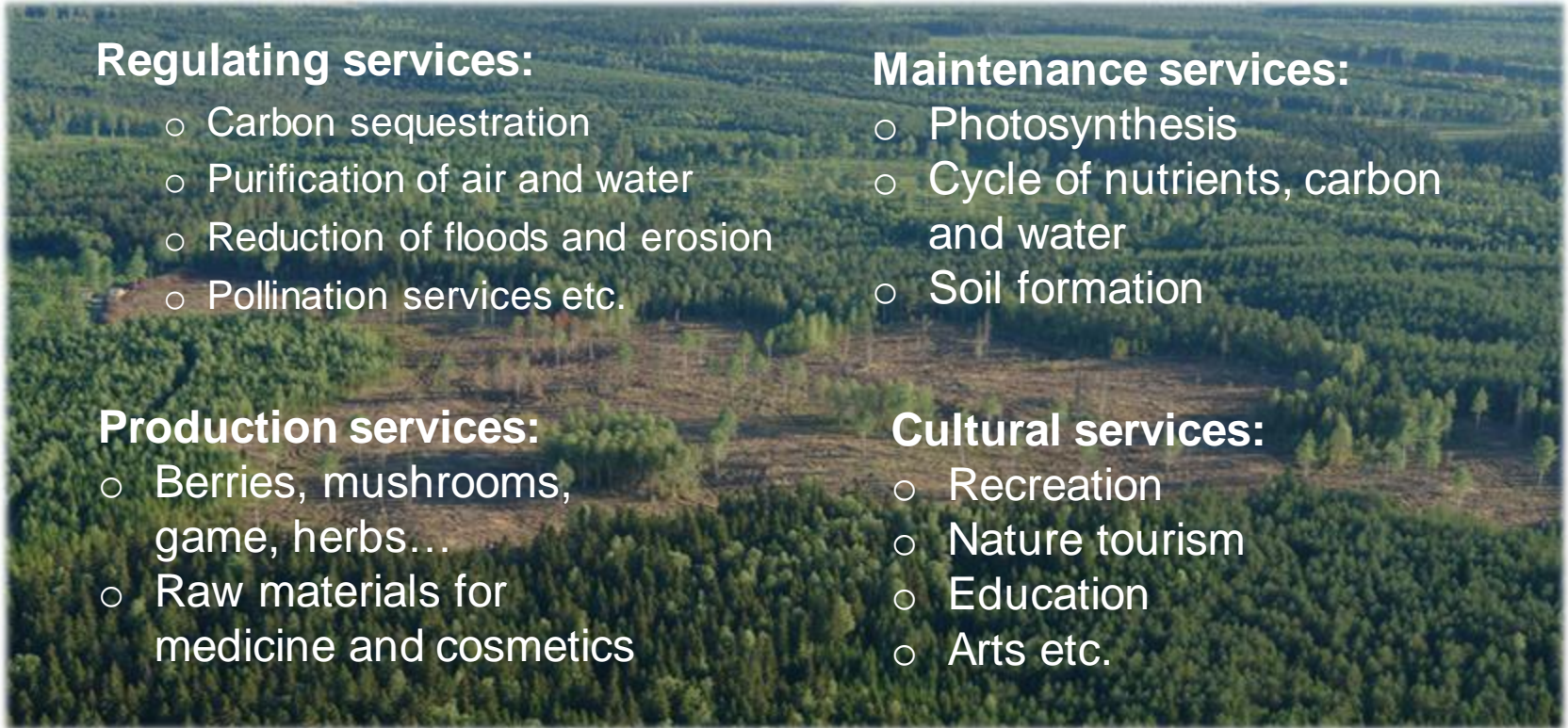
- Berries, mushrooms, game, herbs...
- Raw materials for medicine and cosmetics

Maintenance services:

- Photosynthesis
- Cycle of nutrients, carbon and water
- Soil formation

Cultural services:

- Recreation
- Nature tourism
- Education
- Arts etc.



Ecosystem service production on landscape level

- The list of produced ecosystem services on one specific site depends on a phase of site's life cycle, but on a landscape level Finnish forests produce ecosystem services continuously and many ecosystem services within same hectares at the same time
 - Ecological, social and economic sustainability is secured within same hectares





Unique way to use land

- Forests in commercial use and protected forests for green infrastructure supplement each other in production of different ecosystem services
- This kind of land use system is unique in the world and Finnish forests can truly be called as multiple use forests





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