

# **A new EU Forest Strategy: for forests and the forest-based sector**

**Jan Szyszko**

with

Axel Schwerk, Izabela Dymitryszyn and  
Katarzyna Podgórska - Szyszko

**„Sustainable Forest Management and the Multifunctional Role of  
Forests”**

**Brussels 5 November 2014**

Laboratory of Evaluation and Assessment of Natural Resources  
Warsaw Agricultural University

Association for Sustained Development of Poland

**EUROPE NEEDS ITS FORESTS, NEW  
FRAMEWORK AND NEW STRATEGY**

# **Why is needed ?**

- **Because we have the following facts:**
- **Increase of GHG concentration**
- **Soil degradation**
- **Loss of biodiversity**
- **Increase of unemployment and decrease of jobs in rural areas**

# **Reaction on a global scale**

- **UN Climate Change Convention**
- **UN Convention on Biological Diversity**
- **UN Convention on Desertification**

# **Reaction on a Europe scale**

- **The EU Climate and Energy Package**
- **Natura 2000**
- **The European Landscape Convention**

**These problems are connected with each other.**

**Sustainable development, Forests and Carbon dioxide are key factors!**

**Money and self-financing are also key**

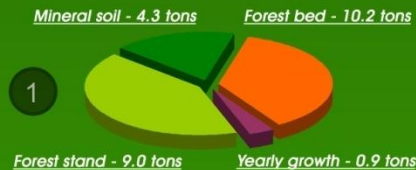
# Biodiversity and carbon distribution in young plantations



Pine plantation

## Carbon

### Plantation



Total: 24.4 tons

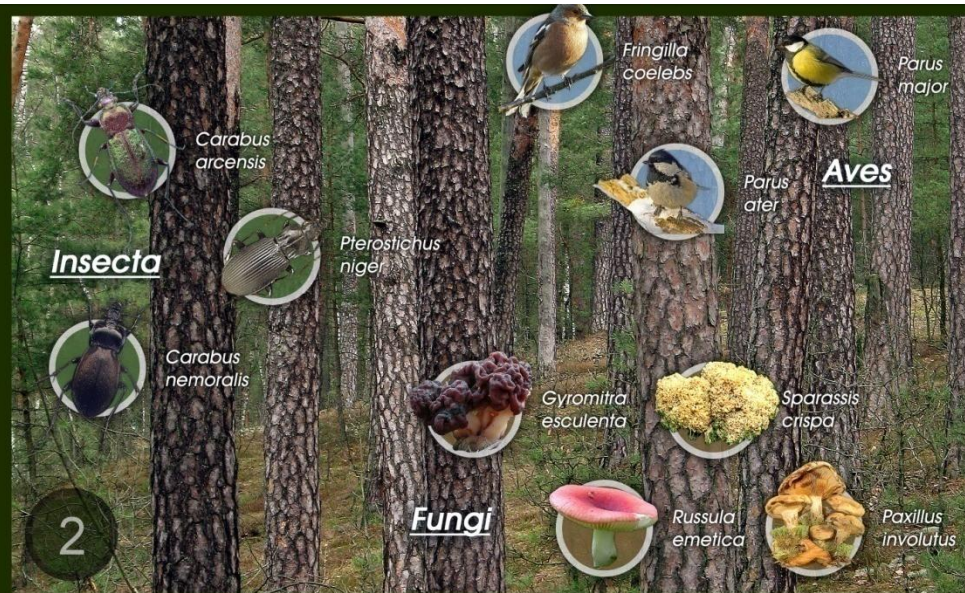
Carbon/ha: 24.4 t  
Carbon dioxide/ha: 89.47 t

Value\*/ha: 2071.2 €  
Value-incr./year: 76.3 €

\* Price of 1 t of carbon dioxide on 15.08.2008:  
23.15 Euro ([www.pointcarbon.com](http://www.pointcarbon.com))



# Biodiversity and carbon distribution in old pine forests



Pine stand 105 years old

## Forest stand



Total: 124.0 tons

Carbon/ha: 124.0 t  
Carbon dioxide/ha: 454.67 t

Value\*/ha: 10525.6 €  
Value-incr./year: 140.9 €

\* Price of 1 t of carbon dioxide on 15.08.2008: 23.15 Euro ([www.pointcarbon.com](http://www.pointcarbon.com))

# Biodiversity and carbon distribution in beech forests



Beech stand 50 years old

## Beech

Yearly growth - 2.4 tons

Forest bed - 13.0 tons

Mineral soil - 53.3 tons

Forest stand - 90.0 tons

Total: 158.7 tons

Carbon/ha: 158.7 t  
Carbon dioxide/ha: 581.90 t

Value\*/ha: 13470.0 €  
Value-incr./year: 203.8 €

\* Price of 1 t of carbon dioxide on 15.08.2008:  
23.15 Euro ([www.pointcarbon.com](http://www.pointcarbon.com))





# Carbon distribution in native forests in cool temperate forests

Vegetation: 160 t/ha

Soil: 140 t/ha

Litter: 25 t/ha

Total: 325 t/ha

Carbon dioxide 1193 t/ha

Value: 27612.16 euro/ha

Value increase : up to us

**Forests are a chance for sustainable  
development of rural areas if we  
include them to the European Trade  
Emission System**

**WHY ?**

# Why ?

## Price of one ton of carbon dioxide

1. ETES – 12.3 euro ([www.pointcarbon.com](http://www.pointcarbon.com)) price on 16 August 2011

## The cost of absorbing one ton of carbon dioxide

1. CCS – 60-100 euro
2. Forest (purchase of land, afforestation) – 3 euro

# Why ?

**Because we have in the EU**

- many million hectars of degraded land for afforestation.**

- one hectar enables absorption of 16 t of carbondioxide per year.**

- this is  $16 \times 12.3$  euro = 196.8 euro per year**

**[www.pointcarbon.com](http://www.pointcarbon.com) (price on 16 August 2011)**

- This money is possible to use for creating of work places in rural areas only**



# Why ?

**Because we have in the EU**

- many million hectares of degraded forests for regeneration.**

- one hectar enables absorption of about 1.5 t of carbondioxide per year in the time of 100 years.**

- this is  $1.5 \times 12.3 \text{ euro} = 18.45 \text{ euro per year}$**

**[www.pointcarbon.com](http://www.pointcarbon.com) (price on 16 August 2011)**

- This money is possible to use for creating of work places  
of work in rural areas only**

# Why ?

**Because we have in the EU**

- several million hectares of degraded agricultural soils for regeneration.**
- one hectar enables absorption of about 1 t of carbondioxide per year in the time of 100 years.**
- This is 1 x 12.3 euro = 12.3 euro per year**

**[www.pointcarbon.com](http://www.pointcarbon.com) (price on 16 August 2011)**

**-This money is possible to use for creating of work places  
in rural areas only**

# **Additionality according to the UNFCCC**

## **Art. 4.1.d.**

**All Parties shall promote sustainable management of sinks including biomass, forests and other terrestrial ecosystems**

## **Art. 4.2.a.**

**Each Party included in Annex I shall adopt national policies protecting its GHG sinks.**

# **Additionality according to the Kyoto Protocol**

## **Art. 3.3**

**The net changes in GHG emission by sinks resulting from direct human-induced land-use and forest activities shall be used (Annex I Party)**

## **Art. 5.1.**

**Each Party included in Annex I shall have in place a national system for the estimation of antropogenic emission by removals by sinks.**

## **Additionality for forests**

- 1. The Kyoto Forest**
- 2. Prolongation of clear cut age**
- 3. Acceleration of process of succession**
- 3. Introduction of undergrowth**
- 4. Elimination of clear cut and stimulation of natural regeneration**
- 5. Diminishing of probability of mass occurrence of forest pest organism**
- 6. Diminishing of probability of occurrence of forest fire**

## **Conclusion**

- 1. Polish Forestry is a model of sustainable development for Europe**
- 2. Polish Constitution and Polish Forestry Law are the guarantee for the duration of Polish Forestry**
- 3. A new EU Forest Strategy should take account of sustainable development with respect for international law and the cultural heritage of individual countries.**
- 4. Forests should be included to the European Trade Emission System**

**Thank you very much for your attention  
with the hot invitation to Poland and our  
Laboratory of Evaluation and Assessment  
of Natural Resources „D&B” in Tuczno**