



International Conference  
Mountain Forests in a Changing World  
UNI BOKU VIENNA April 2–4, 2008

# Overview on State and Policy issues of the Carpathian Forests

**Pier Carlo Sandei**

**with Tommaso Anfodillo, Marco Carrer, Elisa Giacomini,  
Silva Lamedica and Davide Pettenella**



**Dipartimento Territorio e Sistemi Agro Forestali**  
Università degli Studi di Padova



# Presentation outline

- Background: Carpathian mountain and the Carpathian Convention
- Objectives
- Methodology
- Environmental and management aspects
- Socio-economic and policy aspects
- Conclusions

# Background

- Carpathian space
- Carpathian Convention
- Carpathian Project



Seven countries =

# Carpathian Space

- **Europe's largest mountain range!**
- Living environment for up to **18 million people!**
- **Europe's greatest reserve** of pristine forest, refuge for brown bears, wolves, bison, lynx, eagles and some 200 unique plant species found nowhere else in the world
- **Continent's cleanest streams** and drinking water supplies
- **Unique** natural, historical and cultural heritage
- **Haven** for wildlife and ecological link within Europe



# Carpathian Convention

## Unique agreement addressing exclusively mountain ecosystems

- **Signed in May 2003**
- **Entry into force** – 4 January 2006
- **Ratification** by the Parliaments of all the Carpathian countries
- **COP1** - 11–13 December 2006, Kyiv, Ukraine, **COP2** – Romania 2008
- **Political support of the EU, CC countries and V4:**
- **Carpathian Project** promoted by the programme EU INTERREG IIIB CADSES
- **Partnerships:** MoUs with the Alpine Convention, the Ramsar Convention and Central European Initiative (CEI), cooperative agreement with EURAC



# Carpathian Project



EU Community Initiative INTERREG III B  
CADSES Neighbourhood Programme  
**(Carpathian Project):**

September 2005 - August 2008

General Strategic Process: The assessment of the forests status is a necessary implementation of the Work Package 2 **Activity 2.7: Forestry and timber industry**

# Sectoral Studies

- Water
- Transport
- KEO
- Tourism
- **Forestry**
- Agriculture



[Draft] Report of the Workshop on

**Conservation and Sustainable Use of Forests,  
Biological and Landscape Diversity in the  
Carpathian region**

FAO Sub-Regional Office for Central and Eastern Europe  
(FAO/SEUR)  
Budapest, Hungary

19-20 September 2007

# Ojectives

**COP1**

**11-13 December  
2006, Kyiv, Ukraine**



**= CURRENT STATE OF FOREST RESOURCES**

description of forest resources and forest management problems

**CHALLENGES AND PRIORITY FOR ADAPTING  
THE MANAGEMENT OF CARPATHIANS  
FORESTS TO NEW ENVIRONMENTAL AND  
SOCIO-ECONOMIC CONDITIONS**

= analysis of the main policy issues connected with the protection and use of forest products and services

# Methodology

- General approach
- Reasearch methodology

# Science for the Carpathians – S4C

- Partnership among scientific institutions for supporting the Carpathian Convention
- Members from Carpathians and non-Carpathians countries
- Network for research
- Development of new projects

- Bibliographic databases (web, libraries)
- Field trips:
  - ◆ Romania (ICAS - Suceava) August 2007
  - ◆ Ukraine (URIMF – Ivano-Frankivsk) October 2007
  - ◆ Slovakia (FRI – Zvolen) October 2007
- Meetings :
  - ◆ Vienna (UNEP) July 2007
  - ◆ Budapest (FAO-SEUR) September 2007
  - ◆ S. Vito di Cadore – Italy (Centro Studi per l’Ambiente Alpino, Università di Padova) November 2007
- **Questionnaires**

# Acknowledgements

**Otakar Holusa**, Ministry of Agriculture, Forest Management Institute (CZ)

**Csaba Mozes**, Ministry of Agriculture and Rural Development, Department of Natural Resources (HU)

**Czeslaw Koziol**, Forest Gene Banks Kostrzyca (PL)

**Katarzyna Loskot**, Forest Gene Banks Kostrzyca (PL)

**Tomasz Wójcik**, International Cooperation Department, General Directorate of State Forests (PL)

**Dragos Mihai**, National Forest Admin. ROMSILVA, Silvotourism Unit (RO)

**Mihai Zotta**, National Forest Admin. ROMSILVA (RO)

**Mircea Verghelet**, National Forest Admin. ROMSILVA, Protected Areas Unit – (RO)

**Ionel Popa**, Experiment Station for Spruce Silviculture (ICAS) Suceava, Romania

**Rastko Jankovic**, Ministry of Agriculture Forestry and Water Management - Directorate of Forests (SE)

**Sasa Stamatovic**, Ministry of Agriculture Forestry and Water Management - Directorate of Forests (SE)

**Mikulas Cernota**, National Forest Centre - Forest Research Institute Zvolen (SK)

**Yuriy Shparyk**, Ukrainian Mountain Forestry Research Institute, Ivano-Frankivsk (UA)

**Liubov Poliakova**, State Forestry Committee (UA)

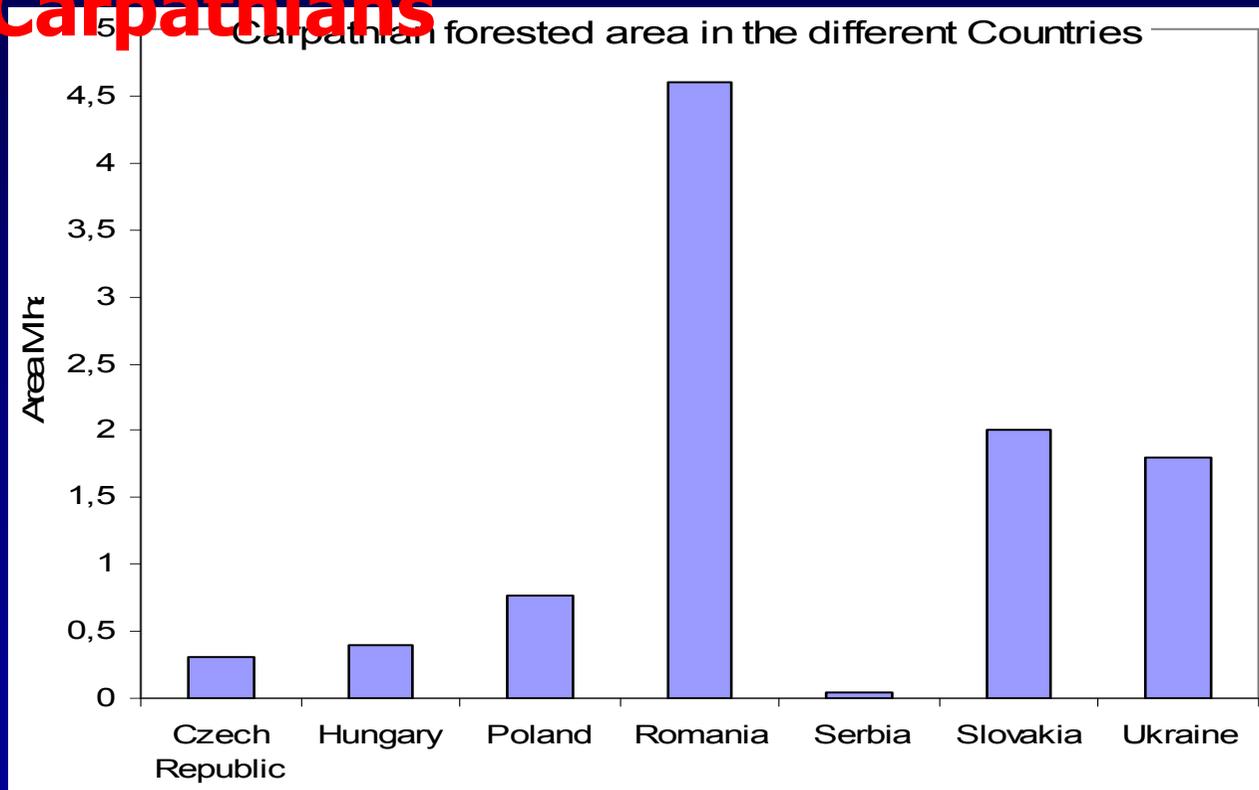
# Environmental and management aspects



# Forested area in the Carpathians

	COUNTRY AREA		FOREST AREA		Carp. region / Country		FOREST AREA in the Carp. Region		Carp. forests / Country Forests	Carp. Region forests / Carp. Forests
	M ha	M ha	%	M ha	%	%	M ha	%	%	%
Czech Republic	7.89	2.65	33.6%	0.71	9.0%	3.8%	0.31	43.4%	11.7%	3.1%
Hungary	9.3	1.98	21.3%	1.34	14.4%	7.2%	0.40	29.6%	20.1%	4.0%
Poland	31.27	9.00	28.8%	1.67	5.3%	8.9%	0.76	45.6%	8.4%	7.7%
Romania	23.84	6.43	27.0%	7.70	32.3%	41.2%	4.60	59.7%	71.6%	46.4%
Serbia	8.84	2.31	26.2%	0.07	0.8%	0.4%	0.04	60.1%	1.9%	0.4%
Slovakia	4.9	2.01	41.0%	3.51	71.5%	18.7%	2.01	57.3%	100.0%	20.2%
Ukraine	60.37	10.80	17.9%	3.70	6.1%	19.8%	1.80	48.6%	16.7%	18.1%
Carpathian Mountains				18.70			9.92	53.0%		

# Forested area in the Carpathians



Carpathian forests: ~ 10 M ha (> 50% total Carpathian area)

> 300 000 ha virgin forests

# Stand composition

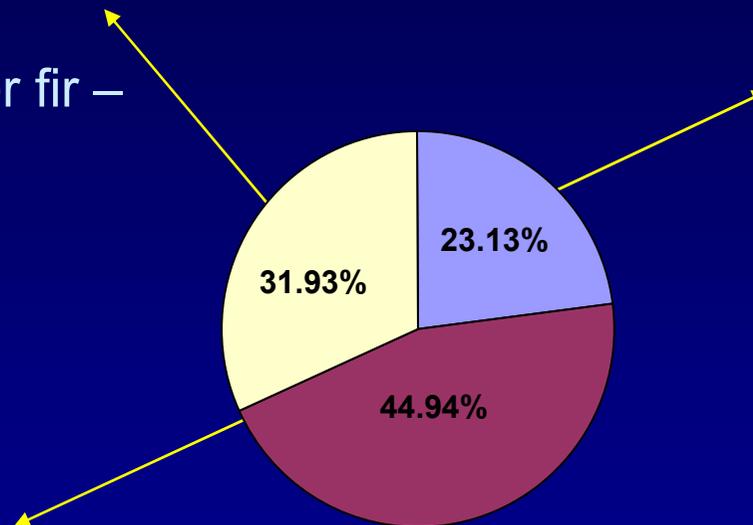
Carpathian Montane forests WWF Ecoregion  
CORINE 2000 categories

## MIXED FORESTS:

Mixed spruce – silver fir –  
beech forests

## BROADLEAVES FORESTS:

Montane and sub-  
montane Beech forests,  
Oak, Oak-hornbeam  
forests,  
Alder-tree, Sycamore  
forests



## CONIFEROUS FORESTS:

Spruce forests,  
Silver fir – Spruce forests

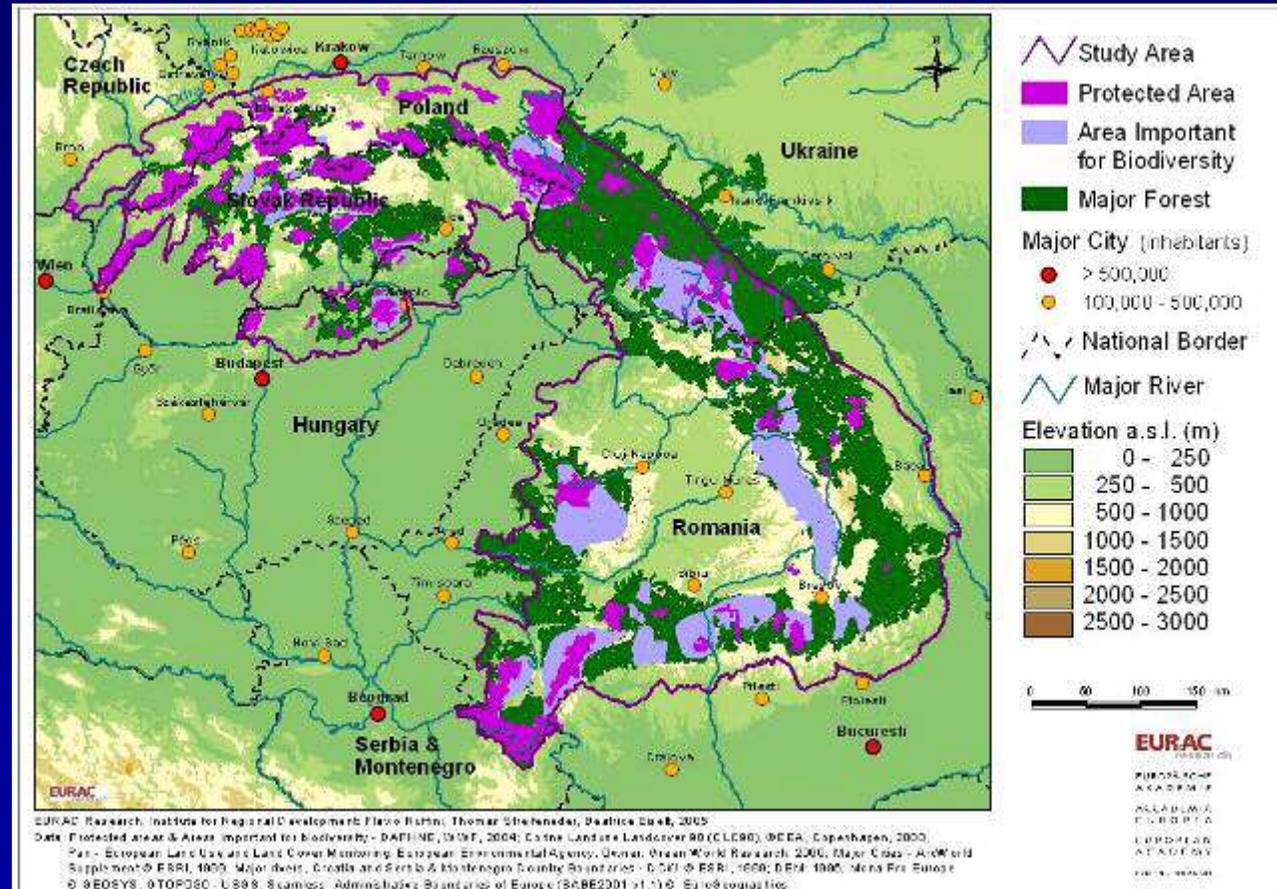
Natural composition sometimes altered by past forest  
management

→ Spruce monocultures in the montane and sub-montane  
zone

# Forest management

- Mostly even-aged forests. Clear cutting is still largely practiced (37.5% commercial forests in Slovakia, problems of private forests in Romania, ... )
- Often artificial regeneration, but natural regeneration is increasing (Slovakia: 35%, Romania: 70%)
- Adjustment of stand composition (Poland, spruce monocultures)
- Sanitary cuttings (forest damages: wind, insect pests...)

# Socio-economic and policy aspects



# Institutional structure

Country	National level	National Forestry Authority	Regional level and institutions
Czech Republic	Ministry of Agriculture Ministry of the Environment		The Forest Management Institute (FMI); The regional governments ( <i>kraje</i> ) and municipalities
Hungary	Ministry for Agriculture and Rural Development	The National Forest Authority National Water, Environment and Nature Conservation Authority	11 regional offices of NFA
Poland	Ministry of the Environment	The National Forest Holding the State Forests The Forest Centre	Regional Directorates of State Forests or directors of State Forests by provincial
Romania	Ministry of Agriculture, Forestry and Rural Development	The National Forest Administration The National Forest Institute	14 territorial units of State Forests (Forest Management Companies) with legal personality (the National Forest Institute).
Serbia	Ministry of Agriculture, Forestry and Water Management Ministry of Science and Environmental Protection		State Forests as "public enterprises" under management of state-
Slovakia	Ministry of Agriculture Ministry of Construction and Regional Development,		State Forests – departments of State Forests; State Forests; State Forests;
Ukraine	Cabinet of Ministers of Ukraine Ministry of Agricultural Policy Ministry of Environmental Protection	State Forestry	State Forestry Management Committee (at the national level); 24 regional State Forestry (at the local level);

A consolidated administrative structures

State forest administration and State forest enterprises

Decentralisation process under way

Old research and university institutions

# Policies

## Three main objectives:

All the Carpathian Countries have adopted **policies related to sustainable forestry management**

- **to strengthen the economic function of the forest:** importance of wood as a source of income for Carpathian countries
- **to improve and protect the environment:** maintain and appropriately enhance biodiversity carbon sequestration integrity health and resilience of Carpathian forest. E.g.:
  - Czech Republic: “*National Biodiversity Strategy*” and “*Strategy for the Protection of the Earth’s Climatic System*” (1999) (implements the Kyoto Protocol and proposes the creation of economic tools to promote energy savings and afforestation)
  - Slovakia: “*Strategy and Plan of Forestry Development*”
- **to contribute to a better quality of life:** preservation and support cultural, traditional heritage and social dimension of forests (tourism). To reach these objectives the policies maintain and enhance the protective functions of forests.

# Principles reflected by policies

Integration of the 12 principles of art 7 of the Convention into the formal forestry policies

Principles	Y/N						
	CZ-REP	HUNG	POL	ROM	SERBIA	SLOVAK	UKRA
Sustainable management of forest resources and forests lands	Y	Y	Y	Y	Y	Y	Y
Protection of forests against pollution	Y	Y	Y	N	Y	Y	Y
Prevention and protection against fire, pests and diseases	Y	Y	Y	Y	Y	Y	Y
Public information on forests ecosystems	Y	Y/N	Y	Y	Y	Y	N
Public participation in development, implementation and planning of national forest policies	N	Y/N	Y	Y	Y	Y	Y
Recognition of vital role of forests in maintaining the ecological processes and balance.	Y	Y/N	Y	Y	Y	Y	Y
Aforrestation and reforestation	Y	Y	Y	Y	Y	Y	Y
Assessments of economic and non economic values of forest goods and services	Y	N	Y	N	Y	Y	Y
Protection of natural forest areas	Y	Y	Y	Y	Y	Y	Y
Protection of ecologically representative or unique types of forests	Y	Y	Y	Y	Y	Y	Y
Consideration of alternative uses of forests	Y	Y/N	Y	Y	N	N	N
Ensure appropriate retention of precipitation in the mountains for flood prevention	N	Y/N	Y	Y	N	Y	Y

# Forestry legislation (1 / 2)

**All countries have at least one general act dedicated to forests**

Only Ukraine has Moratorium on clear cuts on mountain slopes in the beech–fir forests specific for the Carpathians

Main concerns in the national legislations: **forest management planning and conservation of biodiversity and the ecological functions of the forests**

Examples:

- **Poland** has adopted a “*Regulation on the improvement of forest management according to ecological rules*” . It prescribes for example:
  - the maintenance of riparian forests and the protection of forest wetlands
  - the preparation of nature conservation programmes as annexes to forest management plans
  - the promotion of natural forest regeneration
  - restrictions on clear–cuts

# Forestry legislation (2/2)

- **Czech** “*Act on Forests*” defines the preconditions for the preservation of the forests their care and regeneration and for support for sustainable forest management
- **Serbian** “*Law on Forests*” is in force but a new law is in preparation and the future legislation will be harmonized with the EU legislation
- **Romania:** many laws and regulations concerning forest management and logging activities which are not consistent with each other: for instance some laws are in contradiction with the “*Law on Hunting*” which gives permission for the hunting of animals in forests
- **Ukraine:** inconsistencies between the “*Law on Forests*” and the “*Land and Forest Code*” regarding sanitary cuts on the territory and the protection zones of biosphere reserves while the *Forestry Code* imposes such measures

Some problems of inconsistency between legislation and law implementation (e.g. : Romania for harvesting authorization)

→ room for mutual exchange and

# Forest land restitution (1 / 2)

**Problems caused by the restitution:** creation of a very large numbers of private forest owners many with small holdings (<5ha) and limited background in forest management

In Carpathian area there are **828 000 private forests** (2007) for a total area of **2.3 M ha**

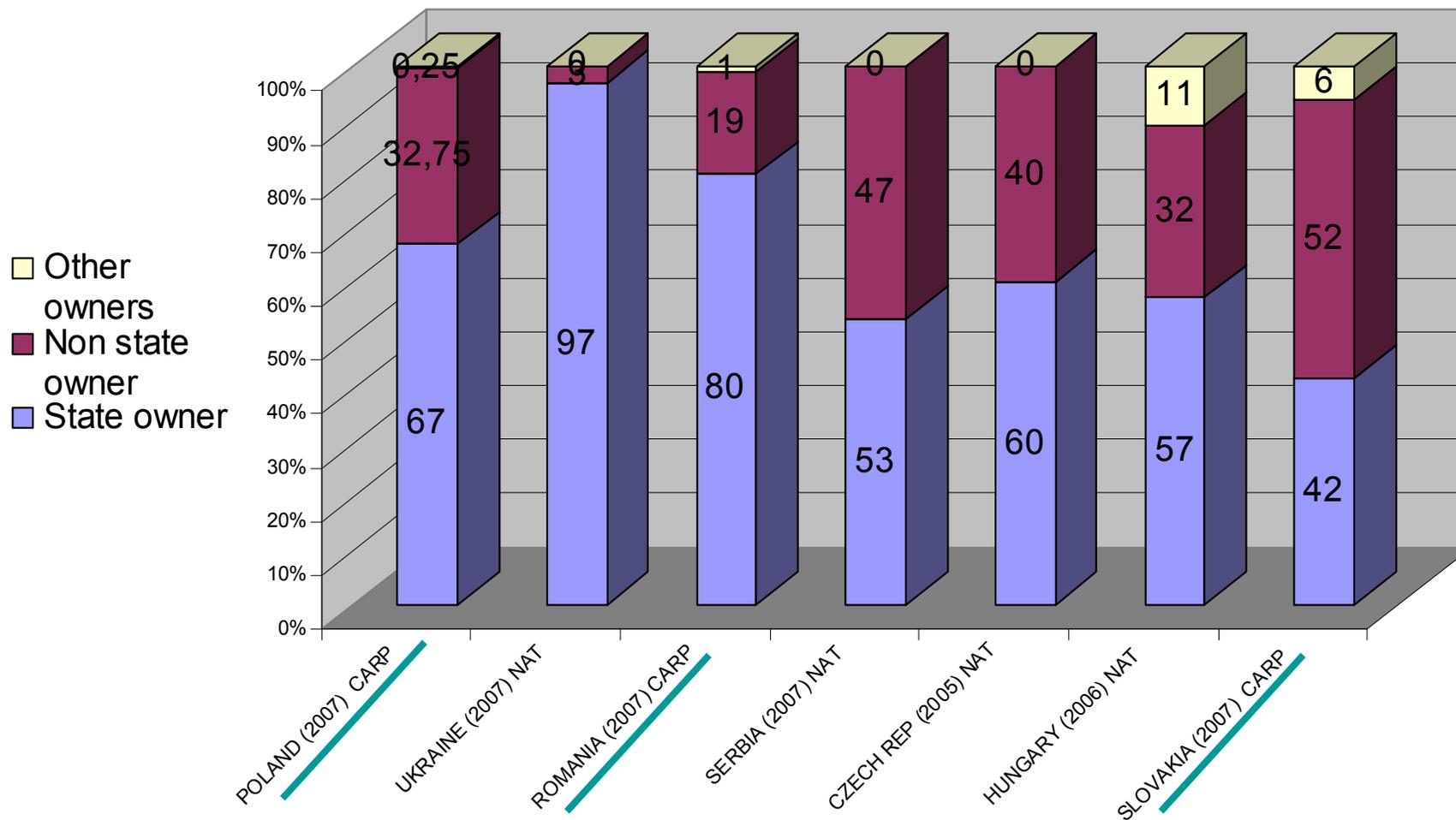
**Ownership fragmentation** is a special problem in the Czech Republic, Poland, Serbia and Romania

- **Poland:** Polish State Liberation Committee (Decree of 12 December 1944): private forests owners (> 25 ha) loose properties in favour of the (State) Treasury
- National policy excludes privatisation of the State Forests. Restitution only after payment
- **Hungary:** the process has been declared ended after:
  - Law on compensation (passed in 1991; entered into effect in 1992)
  - Law on the dissolution of socialist co-operative farms (1992)

# Forest land restitution (1 / 2)

- **Romania:**
  - Law no 18/1991: approx 0.3 M ha of forests were returned to private;
  - Law no 1/2000: approx. 1.9 M ha of forests were returned to the private owners;
  - Law no 247/2005: approx. 0.3 M ha were returned (at the end of 2006)
- **Serbia:** restitution of forests to churches in Serbia is not performed yet
- **Slovakia:** final phase. Still 7% of private forests
- **Ukraine:** restitution not the main issues in forest policy reforming. Two reasons:
  - different historical developments of Western and Eastern Ukraine (problems to find information about former owners before Second World War)
  - a fear that forests would be destroyed immediately if privatized

# Forest ownership structure



# Illegal Logging

A sensible problem for the public

→ A priority area for policy action?

## Carpathian Region

	Volume of total volume logged 1000 m <sup>3</sup> (2003)	Percentage of total volume logged	The volume logged illegally 1000 m <sup>3</sup> (2007)	Percentage of the total volume logged (2007)
<b>Slovakia</b>	62.4	~1%	62.4	~1%
<b>Ukraine</b>	83.8	<1%	11.1	0.26%
<b>Romania</b>	80.8	<1%		
<b>Poland</b>	34.6	~1%	15.3	0.3%
<b>Czech Rep(2001)</b>	148	1%		

Source: UNECE/FAO 2004 (Illegal logging estimates from country reports)

# SFM certification (2007)

	PEFC National Data		Carpathian Regions		FSC National Data		Carpathian regions	
	ha	forest	ha	forest	ha	forest	ha	forest
CZECH REP	1 940 142	1	0	0	14 554	4	0	0
SLOVAKIA	537 120	2	537 120	2	162 251	6	162 251	6
HUNGARY	0	0						0
POLAND	0	0						3
UKRAINE	0	0						2
ROMANIA	0	0						1
SERBIA	0	0			19 357	1	0	0
<b>TOTAL</b>	<b>2 477 262</b>	<b>3</b>	<b>537 120</b>	<b>2</b>	<b>7 585 532</b>	<b>48</b>	<b>1 941 812</b>	<b>12</b>

SFM standard development  
 → room for mutual  
 exchange and  
 harmonization

Source: [www.fsc.org](http://www.fsc.org) and [www.pefc.org](http://www.pefc.org)

# Conclusions

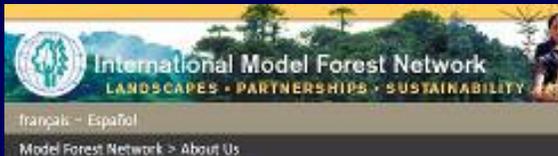
- Main obstacles
- Some priority fields of actions
- Spillovers



# Main obstacles

- **Lack of financial tools** to turn private owners and forest managers towards sustainable forestry
  - **traditional method of logging** (large clear cuts) used of past
  - introduction of **non-natural species**
  - inadequate **wildlife management**
  - ...
- **Technical support** to private forest owners and **forest associations**: inadequate support for forest protection, logging techniques and forest planning
- **A low awareness** among the public and **lack of understanding** among State authority representatives and forests managers
- **Participative approaches** and the role of civil society in forest resources management

# Model forests



- Topic Explore
- Model Forest Network
    - About Us
      - Contact Us
      - Fact sheets
      - Governance
      - History
      - Mission
      - Vision and Objectives
    - Contact Us
    - FAQs
    - Important Notices
    - Policy Relevance
    - Lessons Learned
    - Links
    - News and Events
    - Publications and More
    - Regional Networks
    - Site Map
    - Common Themes
    - Tools and Templates
    - What is a Model Forest?

## About the International Network

The International Model Forest Network (IMFN) and use.

Model forests don't just happen by themselves. Someone has to plant the initial seed, to inform IMFN. It converts the collective experience of

### The International Network's Goal

The primary goal of the international program ensure that all partners, regardless of political forest-based landscapes.

Our three key objectives are:

- To foster international cooperation and
- To support international cooperation in
- To support ongoing international disc

As a long-term goal, the Network will serve as a platform where forest managers will share their knowledge and encourage benefits for humanity.

### The Secretariat

The model forest approach was first brought to "internationalize" its thriving, innovative Model International Development Research Centre in a sustainable manner.

The role of IMFNs is to facilitate the creation of a Secretariat provides the central day-to-day coordination where there is no regional network in place.

- Networking between sites and regions
- Assistance in resource expansion
- Technical and logistical issues in establishing and operating model forests
- Communications, advocacy and outreach
- Targeted program support (as available)
- Partnership development and capacity-building
- Documentation
- Monitoring and evaluation



## INTERNATIONAL MODEL FOREST NETWORK



October 2007

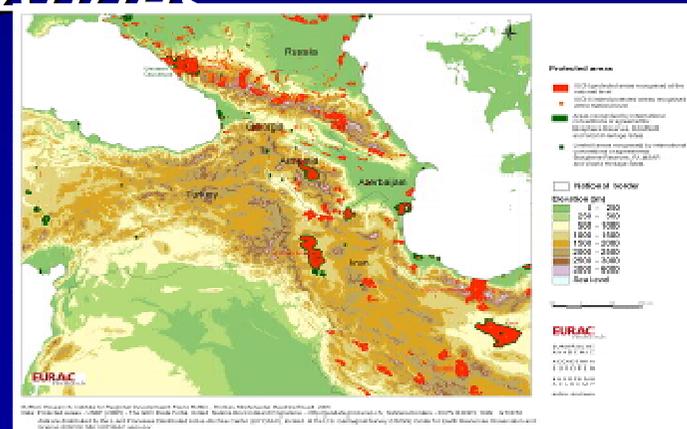
<http://www.imfn.net/en/>

## Some priority fields for action

- **Action plans regarding afforestation and timber cut** should be adopted including the change to selected cuts (close to nature silviculture).
- **Action against illegal logging** (FLEGT and ENA-FLEG):
  - → law implementation, also against organized criminals
  - → poverty alleviation in rural areas
- Promotion of agri-environmental practices and traditional products (NWFP) and forest-environmental schemes (→ tourism): **payments for environmental services**
- **Virgin forests**: improving protection, monitoring, networking, + corridor
- Improvement of the system of **environmental assessment** of forestry activities
- **Establishment of forest resource database** for the

# Balkan / Caucasus / HKKH

- Sharing the Experience – Legal Instruments for the Protection and Sustainable Development of Mountain Regions in South Eastern Europe / the Caucasus, *Bolzano 12–16 December 2005*
- *Observers from HKH, Andes*





**Pier Carlo Sandei**

**[piercarlo.sandei@unvienna.org](mailto:piercarlo.sandei@unvienna.org)**

**UNEP ROE - Vienna ISCC**

[www.carpathianconvention.org](http://www.carpathianconvention.org);

[www.carpathianproject.eu](http://www.carpathianproject.eu)

[www.unep.org](http://www.unep.org)

[www.unep.ch](http://www.unep.ch)

