

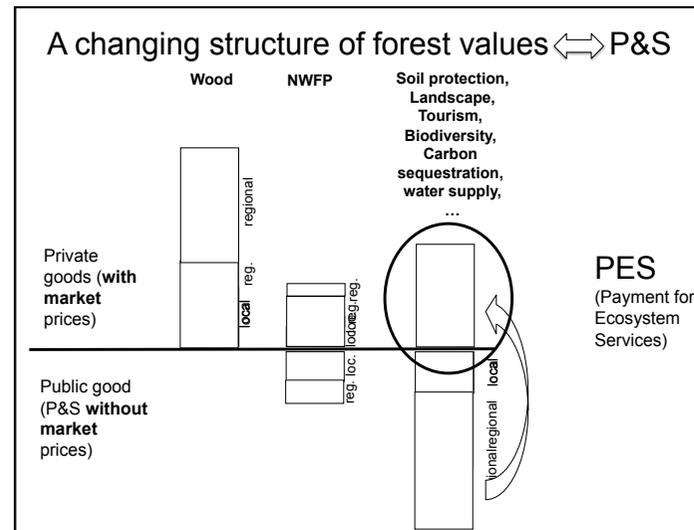


III Mediterranean Forest Week  
Tlemcen, Algeria, 17-21/03/2013  
www.ii-med.forestweek.org

**Instruments to preserve or restore woodlands and to improve the supply of forest goods and services**



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## Wood production

- A **decreasing role of wood production**, both in absolute and relative terms

Roundwood production value in Mediterranean countries compared to total gross and primary sector GDPs (1990, 2000, 2005, 2010)

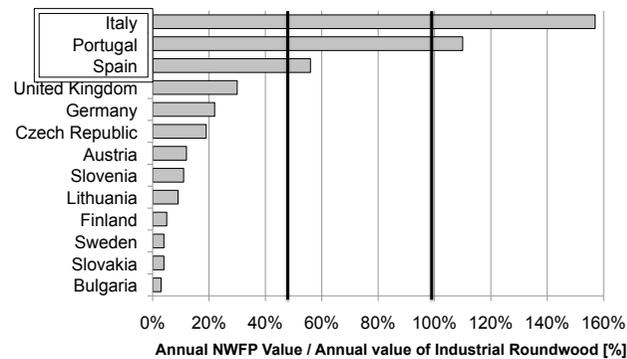
Sub-regions	1990		2000		2005		2010	
	% on total GDP	% on primary sector GDP	% on total GDP	% on primary sector GDP	% on total GDP	% on primary sector GDP	% on total GDP	% on primary sector GDP
SM sub-region	<b>0.4%</b>	3.9%	0.3%	3.7%	0.2%	2.5%	<b>0.2%</b>	2.0%
EM sub-region	0.3%	2.9%	0.3%	3.5%	0.3%	3.4%	0.3%	4.5%
NEM sub-region	1.2%	19.2%	1.0%	17.8%	0.8%	15.3%	0.8%	15.0%
NWM sub-region	0.2%	10.1%	0.2%	10.8%	0.2%	7.6%	0.2%	7.5%
<b>Tot. Mediterranean</b>	<b>0.3%</b>	7.7%	0.2%	8.0%	0.2%	5.8%	<b>0.2%</b>	5.9%

Source: own elaboration from FAOSTAT, 2012 and UN, 2012.

## Impacts of the decreasing role of wood production

- A **decreasing role of wood production**, both in absolute and relative terms
- **No relevant gain in terms of forest cover and growing stock**
- **No relevant investments** in productive forestry by foreign (or domestic) financial institutions
- Increasing **dependence** from abroad

### A changing market: EU NWFP production compared to round wood



Source: Forest Europe 2011, modif. (year 2007)

### Studies on forest externalities values

#### Average biodiversity and recreational values in European Forests (TEEB, 2009)

(Values per hectare – methodology: value transfer)

	Mediterranean EU	Northern and Central-Northern EU	Scandinavian EU
	Latitude 45-65	Latitude 65-71	Latitude 35-45
Range US\$ (2000)	356-615	123-182	123-255
Average \$ (2000)	485.5	152.5	189.0
€ (2000)	379.3	119.1	147.7
€ (2008)	467.1	146.7	181.9



**3.2**

**2.5**

Source: TEEB Report; CLIBIO project cit. in Den Brink et al. (2009)

### Outline

- 3 points:
  - Instruments of forest policy
  - A basic problem for PES implementation: WTP for ES
  - Importance of quasi-PES
- Final considerations



### Instruments of forest policy

### How to support the supply of public goods by the forestry sector?

	Tools	Direct costs for the public sector	Transaction costs for the public sector	Approach	Participation by the privates	
Passive: Command and control	Thresholds, limitations, constraints	Relatively low	Relatively low	Top down	Compulsory	sticks
	Tax deductions, tax exemption	Relatively high			Voluntary or imposed by the State	
Active: creation of new sources of income	Fixed compensation				Voluntary	carrots
	- PES schemes	Zero costs	Relatively high	Bottom up	Voluntary	
Soft tools	- PES-like schemes	Very low	Low	Mixed	Compulsory for some parties	sermons
	- PPP	Relatively high	Low	Top down	Voluntary	
	- Land acquisition by public authorities or large companies (lease, concessions, ...)				Normally voluntary	
	- Tradable permits (cap & trade schemes)	Relatively low	Low	Mixed	Compulsory for some parties	
	- Certification and labelling (premium price)	Zero costs	Zero costs	Bottom up	Voluntary	
- Sponsoring, donations (philanthropy)						
	- Information, provision of services, goods free of charge or a low prices	Relatively high	Low	Mixed		

### Payments for Environmental Services (PES)

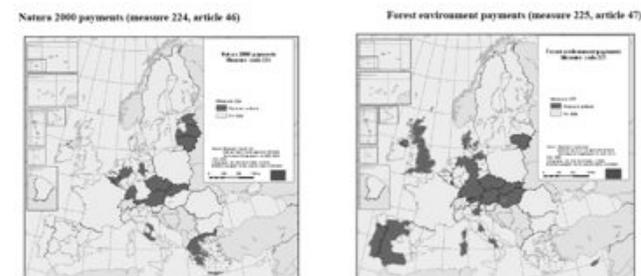
Definition (Wunder, 2005):

- “a **voluntary** (1) transaction where
- a **well-defined ecosystem service** (2) (or a land-use likely to secure that service)
- is being bought by a (**minimum one**) ecosystem buyer (3)
- from a (**minimum one**) ecosystem provider (4)
- if and only if the ecosystem service provider secures ecosystem service provision (5) (**conditionality**)”.

### PES implementation in the Med area

- **Mechanisms of payment or compensation still to be developed** in the region (more delay than in other regions), notwithstanding the strategic role of water, biodiversity and landscape (tourism along the coast)

### Few payments for ES with the RDP



Source: DG AGRI, 2009. Report on implementation of forestry measures under the rural development regulation 1698/2005 for the period 2007-2013

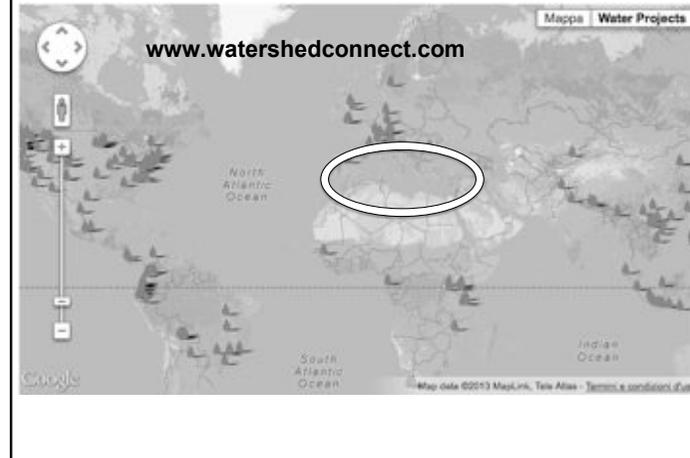
### Water related PES

Table 2: Summary of Transaction Data for 2008 and Historically

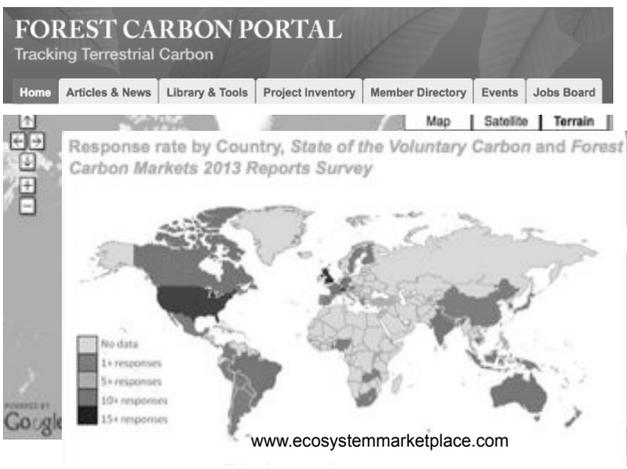
	Programs Identified	Active Programs	Transactions 2008 (US\$ Million)	Hectares Protected 2008 (million ha)	Historical Transactions through 2008 (US\$ Million)	Hectares Protected Historically
Latin America	301	36	31	2.3	177.6	NA
Asia	33	9	1.8	0.1	91	0.2
China	47	47	7,800	270	40,800	270
Europe	5	1	NA	NA	30	0.03
Africa	20	10	62.7	0.2	570	0.4
United States	10	10	1,350	16.4	8,355	2,970
Total PWS	216	113	9,245	289	50,048	3,240
Water Quality Trading	72	14	10.8	NA	52	NA
<b>Totals</b>	<b>288</b>	<b>127</b>	<b>9,256</b>	<b>289</b>	<b>50,100</b>	<b>3,240</b>

Stanton, Tracy; Echavarria, Marta; Hamilton, Katherine; and Ott, Caroline. 2010. State of Watershed Payments: An Emerging Marketplace. Ecosystem Marketplace. <http://www.foresttrends.org>

### Water related PES



### Carbon PES

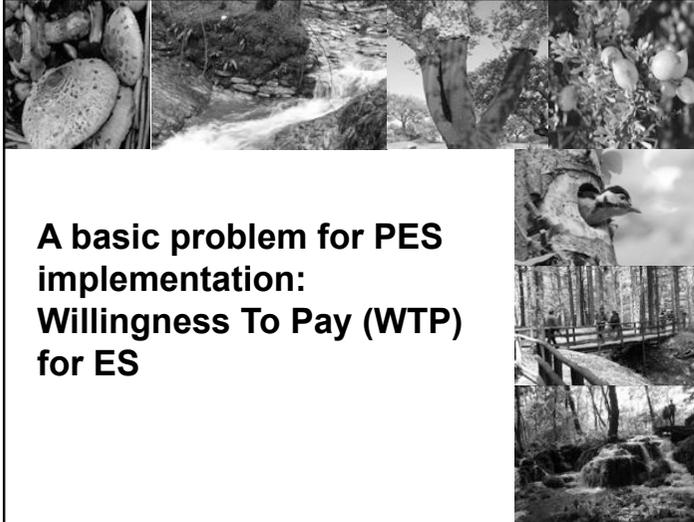


### Biodiversity PES



## Main points for reflection

- Still the **traditional regulative instruments** are playing a **fundamental role** in the Med area:
  - A **passive role** of the civil society
  - “Soft” tools require a **proactive public administration** open to partnership, negotiation, innovative attitude in sharing responsibilities, costs (from training too loss of political power) and benefits, ...



### A basic problem for PES implementation: Willingness To Pay (WTP) for ES



New ways to value and market forest ecosystem services

#### CASE STUDIES

Across Europe there is a huge variation in forest types, landscapes in which forests are situated, degree of urbanization, importance of forest products and services, and socio-economic context. Consequently, there are significant variations in the demand as well as the value of forest ecosystem services, their cost of provision and options for their marketing. Therefore NEWFORE will have to work on a set of spatially explicit European case studies representative in range of these variations, and to address a pioneering survey case study.

The case study regions across four main processes:

1. An existing pilot where we will collect among the relevant stakeholders (e.g. general public, forest owners, administrations, NGOs) the needed structural data on forest characteristics, values, costs of provision, and existing non-market methods.
2. provide data and models for forest production and uses to assess, for example the role of forest landscape effects for tourism.
3. An EU and demonstration sites for the application of the developed methods for valuation of forest ecosystem services and assessment of costs of provision, and evaluation of the potential for implementing market based methods for forest ecosystem services.
4. as an excellent base for communicating general guidelines and recommendations to the main stakeholder groups.

Region	Country	Forest type	Key services	Key products	Key stakeholders
Northwestern region	Germany, Spain	Highly managed, intensively used	High value of non-market services, low market products, and high timber use	EU, EFMD	
Alpine region	Germany, Austria, France, Slovenia	High quality, extensive forest	High value of non-market services, low market products, and high timber use	EU, EFMD	
Central region	France	Highly managed, intensively used	High value of non-market services, low market products, and high timber use	EU, EFMD	
Eastern region	Poland	Highly managed, intensively used	High value of non-market services, low market products, and high timber use	EU, EFMD	
Southwestern region	Spain, Italy	Highly managed, intensively used	High value of non-market services, low market products, and high timber use	EU, EFMD	
Central region	Germany, Austria, France, Slovenia	High quality, extensive forest	High value of non-market services, low market products, and high timber use	EU, EFMD	
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<http://www.newforex.org>

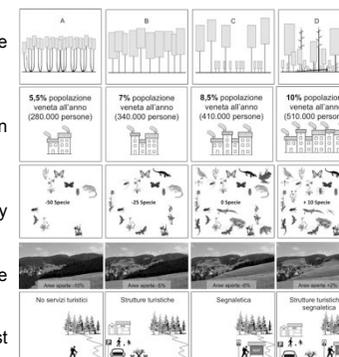
- Cost of ES provision
- PES inventory
- New Market Mechanisms: PES introduction (Choice Experiment)

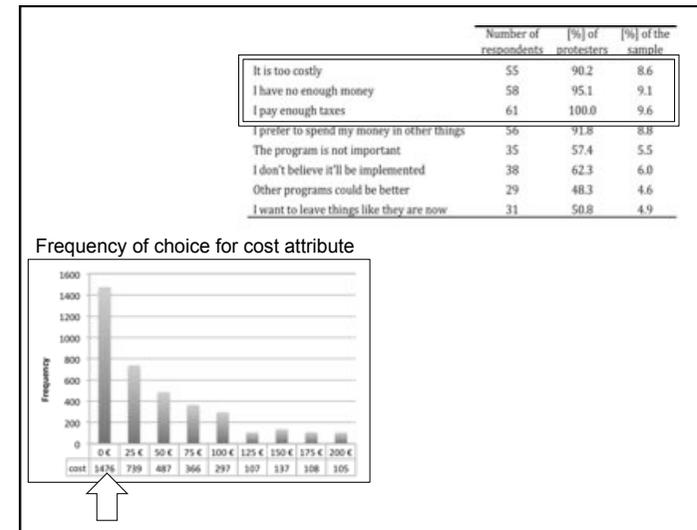
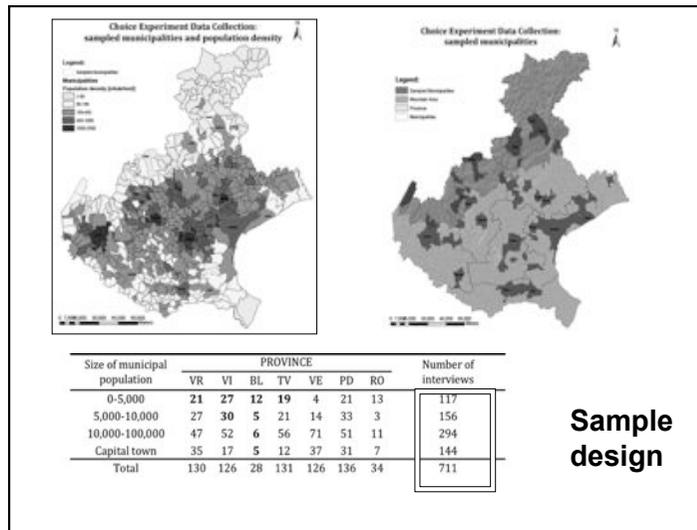
6 case studies

## A survey on WTP for 5 ES

Method: Choice Experiment

1. Forest structure
2. Carbon sequestration
3. Biodiversity
4. Landscape
5. Recreation in forest





**Main results**

- **Biodiversity** protection, **landscape** conservation and maintenance of **forest structure** should be provided at **zero cost** for the beneficiaries
- Some **positive WTP** for **Carbon** sequestration and organized **recreation**
- WTP is highly influenced by the **level of education** (not always correlated to income)

→ As proved by other surveys, positive WTP is much higher in the **small-scale PES systems**

**Important role played by PES-like (or quasi-PES)**

A frame regulation introducing some general obligations and defining the “rules of the game”

## 1. Mushrooms and truffle picking permits

National frame law, Regional Acts and local regulations → daily permits of 5-15 €/persons per max 2-3 kg

**A case-study: Borgotaro Forest Community** (Parma province – Emilia-Romagna Region)

- Total number of permits sold: 25-36,000 €/year
- Annual revenue from permits: 300-420,000 €
- Revenues from PES: 15-19 €/ha/year
- Revenues reinvested in forest maintenance and local development policies



The screenshot shows a website titled 'PARMA TRAIL OF FUNGO PORCINO'. It features a navigation menu with links for HOME PAGE, EVENTS, NEWS, PRODUCTS, FAQ, and CONTACT. A search bar is located in the top right corner. The main content area includes a map of the trail area and a list of events. A text box overlaid on the screenshot provides the following data:

Enterprises: 62 (in 2008); > 100 in 2011  
 15 Agritourisms/ Farm businesses  
 12 Hotels/Guest quarters  
 8 Bed&Breakfasts/Inns/Hostels  
 9 Cheese, sausage and wine producing factories  
 2 Didactic farms  
 3 Museums/Private collections  
 30 Restaurants/Porterhouses  
 26 Typical products sellers

## 2. Hydro power generation

- The first source of renewable energy in Italy (5.1% of total final consumption)
- National frame law: no. 959 in 1953
- PES is based on power of hydroelectric plant (>220 kW/h): 28 €/kWh installed/year (in 2012)
- Beneficiaries: Municipalities, frequently organised in Consortia (BIM – *Bacini Imbriferi Montani*)
- Numbers: 69 BIMs; 1,684 Municipalities involved; 252 dams; 518 power plants

## 3. Drinking water provision

An exemplary case: *Romagna Acque* and the Ridracoli dam

- Dam built in the 1982; capacity of 33 M m<sup>3</sup>; more than 100 M m<sup>3</sup> of high quality drinking water provided/year
- Managers: a public company controlled by the local administrations
- From 1982 to 2007: 25 years of constant investments in the catchment basin area (mainly forest area): an almost fixed amount of 4% of the total company revenues from water tariff, equal to a annual PES of 5-600,000 €
- The cost of removing the soil from the dam-bed could have been 10 times higher in the same period

## Final considerations

- The regulative framework allows the establishment of PES (-like) schemes, but implementation is lacking behind
- Public administration has the responsibility of changing its culture and general approach ...

... from a passive role in  
controlling the resources ...



... to an active partnership in  
rural development ...

