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Comparing profitability and governance for recreational wild mushroom picking in forest and timber production

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Outline

1. The context: Italy
2. Wild Mushroom Picking as recreational environmental service (source of income)
3. Timber production vs. Wild Mushroom Picking in 4 case studies: governance mechanisms and profitability
4. Conclusions

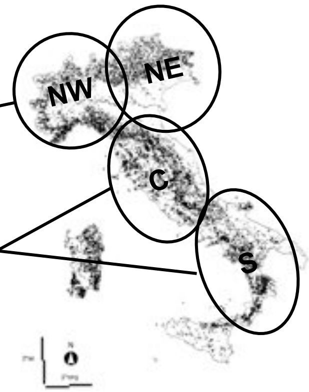
1. The Italian forestry context: an overview

- Italy: **rich of poor forest (95% in mountain-hills)**
- Forest area increasing:
  5.5 M ha in 1950
  10.4 M ha in 2000
  (2-3 M in natural conversion)
- Forestland ownership:
  60% private (former farmers): 3 ha/firm
  40% public (local municipalities, community-forests)

Pink areas = mountain
Black spots = land under conversion

1. The Italian timber production: an overview

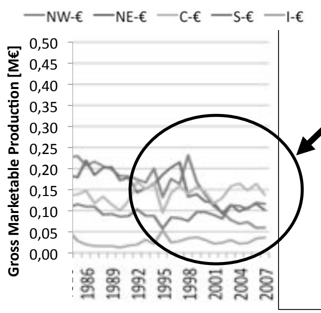
- **Industrial roundwood:** mainly in the North (high forests) (and plantations)
- **Firewood:** main timber output in the Central-South Italy (coppices)
- **Low productivity**



(NUTS 1)

1. Macro-areas: GMP

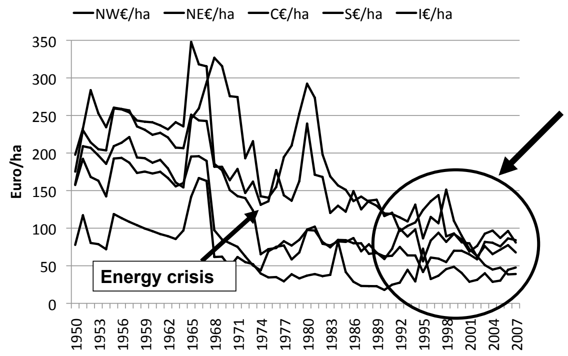
- Centre and South: constant trend → fuelwood
- **NW-NE-I: decrease** → globalization of roundwood market



Data available since 1950, but focus on the last 10-15 years

- **Reduction of high quality (high value) timber**
- **Lack of a NFP** (but 21 local forest programs)

1. Macro-areas: productivity [€/ha]



2. The key-point

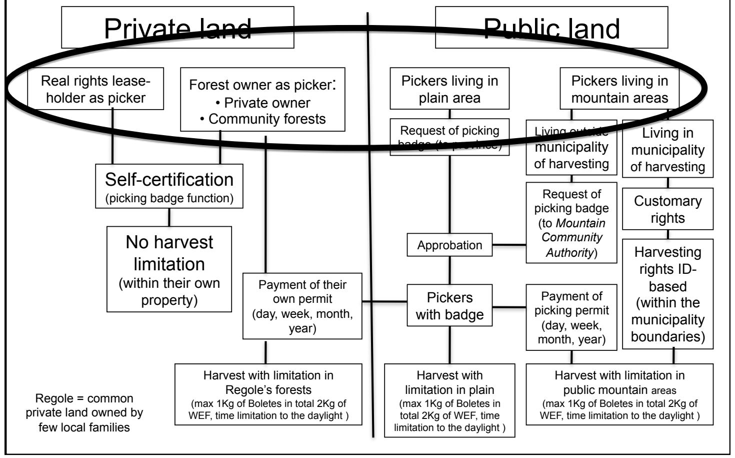
- In a market where timber supply is becoming less profitable, can **payments for NWFPs** be an instrument for enhancing the forest value and **providing income for local population**?

→ NEWFOREX project (2010-2012) (7th FP)

2. Wild Mushroom Picking: recreational activity as a source of income from the forest

1. The most extensive forest activity in the Alps
2. Directly linked to the forest output
3. Activity involving thousands of people
4. Possibility to have a direct transaction between the user (picker) and the provider (forest owner).

2. Wild Mushroom property rights regulation



3. Three governance mechanisms based on 4 Wild Mushroom Picking case-studies

Pre-Alpine mountains (2 cases)
a. Rent use without re-investment

Asiago plateau
b. Limited internal re-investment

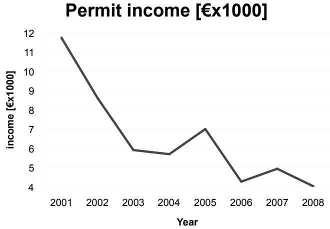
Borgotaro
c. Network-based WEF supply

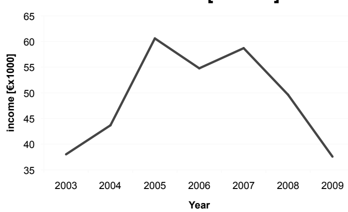
a. Rent use without re-investment

2 Mountain Authorities (municipalities' associations):
Case-study a.1 = "*Astico-Brenta*" (10,800 ha)
Case-study a.2 = "Astico-Posina" (23,400 ha)

- Appr. 3,500 - 4,000 picker badges
- **Lack of control**
- Low investment on WEF res.

Permit cost: daily 6€; monthly 17€ - 30€; annually 32€-77 €

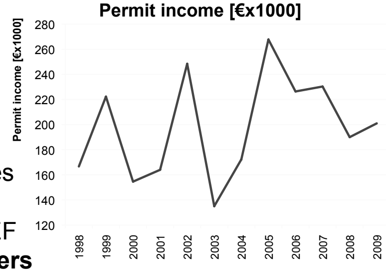




b. Limited internal re-investment

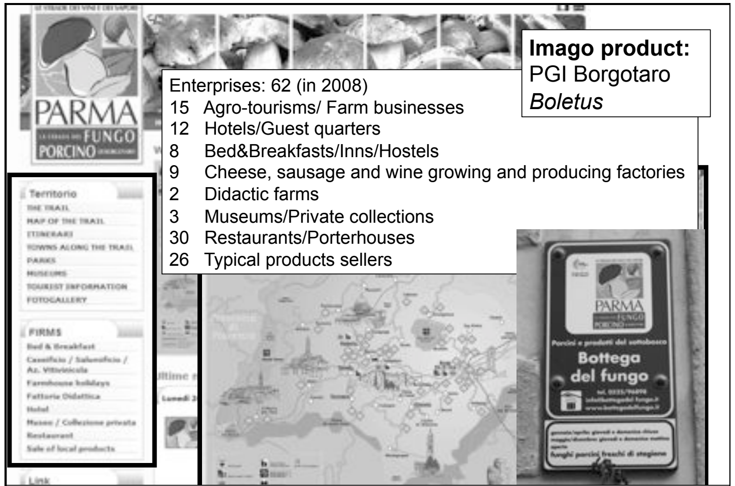
One Community Forest:
"*Spettabile reggenza*"
49,000 ha

- Appr. 10,000 picker badges
- > 20,000 permits/yy
- Limited investment on WEF
- **Some external WEF buyers**



Permit cost: daily 6€; monthly 32€; annually 77€

- **Presence of other recreational forest activities**
- Fist approach on territorial marketing:
  - ✓ WEF among the local specialty products (i.e. Asiago cheese)
  - ✓ Link to the local handcraft shops
  - ✓ Picking tourism



c. Network-based WEF supply

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WEF are much more than a commodity or recreational service ➔ the key-component (imago product) of **a larger network** (Human and Provan, 1997 – mod) based on the concept of "**territory**"

⇨ a consistent **portfolio of products and services**

⇨ **coordinated marketing efforts**

- **420,000 € per year from WEF permits selling** on 33,000 ha of forest
- **2.8 M€ total income** (estimated) from Wild Mushroom tourism (in 2006)

3. Profitability: timber vs. WEF

Case study	Timber	WEF
One authority, no control, re-investments (a.1, a.2)	**7.8 €/ha** (2000-2008) 15.3 €/ha* (2000-2008)	1.1 €/ha (2000-2008) 3.5 €/ha (2003-2009)
Few actors, limited control, low re-investments (b)	**47.3 €/ha** (2000-2009)	**6.6 €/ha** (2000-2009)
Network, high control, significant re-investments (c)	n.a.	**12.7 €/ha** by permits selling (but **84.8 €/ha** considering all the WEF-based activities) (2006)

* Firewood for self consumption by the members of the Consortium

4. Conclusions 1/2

- **Profitability from NWFPs is comparable** (or higher) to that from traditional timber production
- **Property rights** regulations are important for pickers & forest owners, but more important is the chance of **entrepreneurial innovation**
- **Profitability levels depend on the form of governance** (bottom-up/voluntary/market-based initiatives reduce control costs and make it more effective + directly increase forest output ← investments on special silvilculture measures)

4. Conclusions 2/2

The most advanced level of profitability from NWFPs marketing are **reached through networks models**, based on 2 key-components:

- **(contractual) coordination** of economical stakeholders for the supply of products and services to increase profit and/or stability
- **mutual trust**
  - ← input = **social capital**
  - → output = not only market products are supplied but also "**relational goods"**