FOREST PROFITABILITY MEASUREMENT
A pilot project to extend FADN to Italian forestry sector

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Background and project objectives

The new accounting software for agricultural enterprises - GAIA®

Methodology to input forest stands data

Accounting scheme for forestry assets
The timber sector has been experiencing a marginal economic role in Italy.

- 95% of forests are in hilly and mountain regions (LDAs)
- 60% are private forests, but the average size is 3 ha/firm!

The decline of timber market value (~30 €/m³) has emphasized such marginality.

Scarce interest of timber producer organizations to collect data on sector performance.
Background

Agenda 2000 → EU finance forestry sector

12–14% of EU-RD budget

Forest related policies designed for:
- Forestry and Agro-forestry Farms
- Logging enterprises

Regional administrations → increasing demand for economical data over the forestry sector

National Institute for Agricultural Economics (INEA) and Italian National Rural Network (FADN)

→ policy impact evaluation tools
Objectives of Forestry FADN project

➢ To extend FADN survey over forestry owners and logging enterprises → Pilot survey in Veneto Region

➢ Propose a way to harmonize the multi-annual forestry production with the annual agricultural one

➢ **Output** → upgrade the accounting software GAIA® used for farm data collection by INEA
GAIA development and implementation

FADN data collection is organized and managed by INEA (since 1968)

Software GAIA

INEA  FARMER

Farm accountancy data (double-entry book-keeping)

GAIA’s strengths

• Combination of technical information with assets management
• Calculation of financial ratios and economic indicators
• Farm efficiency and economic analysis
Data management in GAIA

Regional level

DB - GAIA (user)

Data Controls

DB - GAIA (user)

DB - GAIA (user)

Statistical queries and regional reports

National level

INIA DataWH

Data Transfer and Upload

Data Download and Export

CE file

Statistical queries and national report

EU DataWH
Forest property recording method

Farm context

Inventory

Forest Working circles:
A1. Productive
B1. Turistic purposes
C1. Protection
E1. etc..

Forest Compartments:
A1.1 Stand Record
A1.2 Stand Record
... etc...
B1.1 ...
C1.1 ...

Technical management

Book-keeping

Cost allocation (gross margin)

Growth → Production

Stand → Financial asset
Accounting scheme

Macro-category → woodland (productive)
Category → working circle (cost center) → Gross Margin
Sub-category → compartments → stand records

> BORCHERS *et. al.* (2002)

- Forest inventory
  - value of timber-stocks calculated differentiated according to species and diameter-classes
  - value of the opening stock at the beginning of the year

+ sales revenues – harvesting costs
  → net value of exploited timber

+/- difference between net value of exploited timber and calculated net value of the annual increment
→ value of the closing stock at the end of the year
Open issues

We want to share our proposals and get suggestions from other European experiences.

Questions

➢ Which evaluation method for (productive) growing stock is the most suitable, considering the project objective?

➢ When and how NWFPs (marketable) or forest ecosystem services “production” (not marketable) influences the gross margin?
Thank you for your attention

www.gaia.inea.it
1.1 Productive Stand:
Vol. 10,000 m³
Incr.% 1.5% year
Value: 10 €/m³

Growth: 150 m³

Production:
- 1,500 €

Sales (trees)
100 m³
50 €/m³
Production:
- 5,000 €
- 1,000 €
- 4,000 €

P&L:
5,500 €
1.1 - 31/12:
100,500 €
Cash - 31/12:
5,000 €

1.1 - (1/01):
- 100,000 €