

Measure 121: Modernization of the agricultural holdings in Greece: Applying Quantitative Network Analysis

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1. Introduction

Measure 121 is the third most important measure of the Greek Rural Development Program 2007-2013 in terms of funding allocation, representing 9.04% of the total public expenditure. During the previous 3rd Programming Period (PP), it was classified as Measure 1.1: 'Investments in agricultural holdings', and was differentiated into two sub-measures relating to crop and animal production in the 4th PP.

2. Research questions

- What **hierarchies** (formal & informal) are formulated in the politico-administrative system regarding agricultural holdings improvements?
- What is the role of the main **power dimensions**, such as trust, pressure and financial incentives?
- What is the hierarchy in **information flow**, and what is the role of "scientific" information?
- What is the status of **dogmatism** (vs. flexibility and willingness for institutional learning) and susceptibility to conflicts?

All the above have been examined for the **past** (3rd PP), the **desirable** and **probable scenario** (4th PP).

3. Methodology

Quantitative Network Analysis was used for the examination of three scenarios:

- a) the actual network under the 3rd PP
- b) the optimal network under the 4th PP, and
- c) the probable network under the 4th PP

Examined structures:

- (1) **Trust relations**
- (2) **Institutional pressure**
- (3) **Dependence on financial incentives**
- (4) **Conflicts**
- (5) **General and scientific information flow**
- (6) **Ascription of dogmatism and expectations of flexibility**

4. Results

Trust (Figure 1)

- The **RDP Managing Authority** possesses the highest position in all scenarios.

Institutional pressure (Figure 2)

- **Private actors** appear to be **slightly upgraded** in both optimal and probable scenarios in the 4th PP, while all were at the lowest level in the past.

Incentives

- Private actors offer favourable services (**working time**) to the public ones during the 3rd PP. However, it is now desired and expected that such incentives will be provided by public and private actors (technical consultant).

Conflicts (Figure 3)

- **Public actors** were **conflict-receivers** rather than conflict-makers. The main receiver of complaints was the Managing Authority. The **density** of conflicts has **increased** from 13,3% in the past to 15,9% in the probable scenario. The number of private actors involved in conflicts also increases.

Information (Figure 4 & 5)

- "**General**" information, is expected to be disseminated by **public actors** in all three scenarios. However, **private actors** such as technical consultants and farmer' interest groups appear to play a more **critical role** in the optimal scenario. Scientific actors (universities and research institutes) involved in the general information network in the past, are now excluded from both the optimal and probable scenarios.
- In the "**scientific**" information network, actors such as **universities** or **research centers** do not appear to be the central ones, and are often even **excluded**. Thus, what is regarded as "scientific" by the policy makers is an open question for further research.

Dogmatism & Complexity (Figure 6)

- The **Managing Authority** appears to be the **most dogmatic** actor in both the past and the probable scenarios. Public actors appear to be more dogmatic than private ones. Public actors are desired to be more flexible in the optimal scenario.
- The participants believe that **complexity** was the **main feature of the procedures**. They consider simplicity to be of great importance for the period 2007-13, and they expect a rather moderate degree of simplicity in effect.

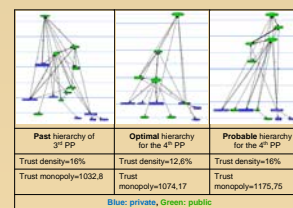


Figure 1. Trust hierarchy

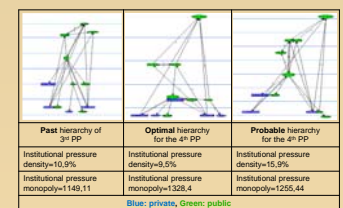


Figure 2. Hierarchy of institutional pressure potential

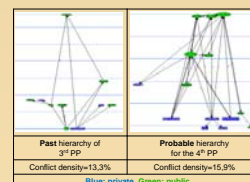


Figure 3. Status of conflict reception

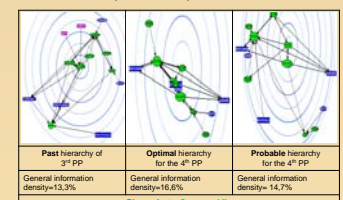


Figure 4. Closeness centrality (importance) of general information

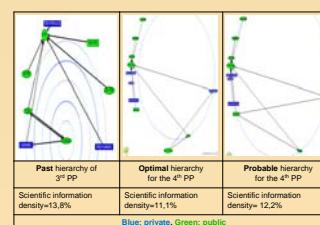


Figure 5. Betweenness centrality (control) of scientific information

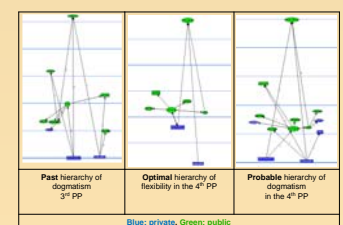


Figure 6. Dogmatism and flexibility status compared

Public Actors	RDP Managing Authority (DA EPAAY), Special Service of Implementation of Co-financed Actions by FEOGA (EYEP), Direction of Programming and Farming Structures (D.PROGR), Animal Production Authority (D.ZOIK), Regional Agricultural Development Authority (DGA (PER)), Local Rural Development Authority (DAA (NOM)), Paying Agency (OPEKEPE), Greek Geotechnical Chamber (GEOTEE)
Private Actors	Pan-Hellenic Confederation of Unions of Agricultural Cooperatives (PASEGES), Technical consultant (TEXN SYMVOULOS), Private consulting agency (ERGO PLANNING), Private consulting agency (EUROAGRO), Livestock Production Association (ORG.KTIN), Agricultural Cooperatives Union (EAS), Cooperatives (SINETER)

5. Policy Recommendations

1. **Human and institutional capacity building** and **technical support** are needed at both **Local** and **Regional** level .
2. **Cooperation and efficient information flow** between public and private actors should be improved among all administrative and governance levels. The role of the National Rural Network is considered crucial in this aspect.
4. Agrarian lobbyists can be hopeful of **new opportunities** but should also be prepared for **new threats**.
5. A more comprehensive **Integrated Information System** (database) would contribute to more simple implementation procedures reducing significantly bureaucracy.
6. A **national level public actor** (eg. Managing Authority) could ensure the **transparency** in procedures.