

# Farm Management Schemes within Organic PGS Survey and Analysis in Soc Son, Hanoi, Vietnam

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## Introduction

Presented is a comparative analysis of collective and individual management within organic Participatory Guarantee Systems (PGS) that juxtaposes the schemes in terms of social and ecological systems as well as impressions of farmers and retailers.

PGS offers solutions to the challenging environment for small-scale farmers:

- supporting appropriate farming practices, local market development, and social cohesion (Zanasi and Venturi 2008)
- agro-biodiversity conservation and livelihood security; recognizing the merits of traditional practices and customs (Darloug 2008)

Collective management outperforms individual management and may hold keys for how PGS management practices could help to solve more of the challenges for local farmers.



Figure 1. Advertisement for local PGS system products in Hanoi, Vietnam

## Hypotheses

PGS management of individual and collective differ in use of: crop rotations, green manures, and inputs, and also differ in the reliability of yields, overall quality and productivity of farming fields, cooperation between producer groups and retailers, and income generation for farmers.

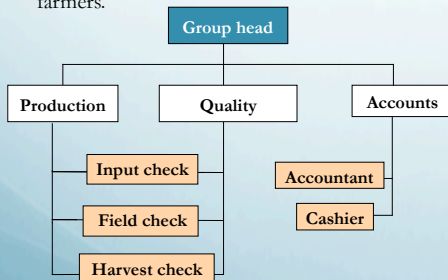


Figure 2. Structure of groups under both collective & individual management. The role of the group head is emphasized in collective management, especially in field production, whereas it is left to each farmer in the individual management model.

## Methods

The chosen study area was in Soc Son, in the Hanoi province of Northern Vietnam (Fig. 3) with organic PGS farmers operating under 'National Basic Standards for Organic Products in Vietnam' (MARD 2006).

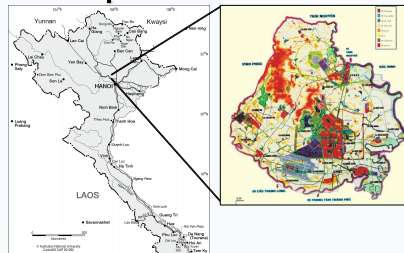


Figure 3. Map of Soc Son in Northern Vietnam (Map from D-Maps, France (INPI 09 3 673 169), inset from Garmin Basecamp © 2013 Garmin Ltd. (version 4.2.4), developed in QGIS 2.0.1-Dufour, Quantum GIS Development Team (2013), Open Source Geospatial Foundation Project

Comparative analysis of two PGS management systems from January to April 2012:

- Interviews, observations, PGS bookkeeping review and analysis
- 6 leaders and 24 members from 6 organic vegetable PGS groups
- 4 representative retailers who deal with farmer groups under both management systems



Figure 4. Farmer's group-inspection of organic PGS vegetable fields in Soc Son, Hanoi Province, Vietnam

## Results

Collective farm management enhances social and ecological practices.

TABLE 1. ECONOMIC INDICATORS FOR TWO PGS MANAGEMENT SYSTEMS

Indicators	Individual	Collective
Labor (hours/farmer/month)	274	222
Average yield (tons/ha/month)	3.2	2.9
Costs per PGS group (USD/month)	266	125
Sold with contract (tons/month/PGS group)	1.5	1.74
Net income per member (USD/month)	100	125

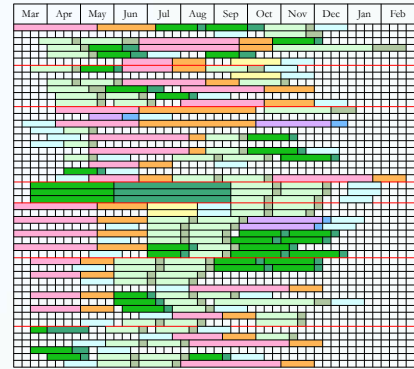


Figure 4. Crop plan for 50 rows, collective managed PGS group, Soc Son, Hanoi Province, Vietnam

Collective groups use green manures in rotation plots and fallow periods for 2 to 26 weeks per year while individual used almost none.

TABLE 2. ESTIMATED NUTRIENT LOSSES THROUGH MONTHLY YIELD KG/HA/MONTH

	N	P	K
Collective	20	10	20
Individual	30	10	20

TABLE 3. AVERAGE NUTRIENT BALANCE THROUGH MONTHLY YIELD LOSSES AND INPUTS KG/HA/MONTH

	N	P	K
Collective	0.7	10	3
Individual	-6	20	-6

## Conclusions

- Collective management assures better crop rotations, more fallow periods, higher use of green manures, more reliable yields and higher quality and productivity
- Retailers prefer the collective management scheme, find that the products are better, and the groups easier to do business with
- Collective labor is a more effective and efficient way to deal with labor-intensive work

Future Research should seek to improve capacity of group leader, cropping systems, better management of paramount inputs, especially in the making and storing of compost.

## Acknowledgements

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## Literature

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