

Green care farming in the context of multifunctional agriculture

Prof. Guido Van Huylenbroeck

Ghent university

Department of Agricultural economics

Objectives of the presentation

- Looking at the origin and conceptualisation of the multifunctionality concept
- Insertion of green care in this concept
- Economic questions following from this
- A neo-institutional economic view on the organisation of green care
- Conclusions

1. Origin and conceptualisation of multifunctionality

Origin of the multifunctionality concept

- In developed societies, in particular in the EU, the dominant position of agriculture in rural areas declined. Due to modernisation, food production increased but the number of farms decreased and agriculture encountered some other limits such as :
 - Market capacity limits: stagnation of EU-population together with more competition at world level, new emerging markets
 - Environmental limits and pressure on natural resources results in policy reactions (e.g. nitrate or water directive)
 - Social limits : isolation of farmers, capital requirements, reduced social status

But: increased social expectations

- Urbanised society expects new services from rural areas
 - Green services: maintenance of landscape and biodiversity, energy
 - Blue services: water management and flood control
 - Yellow services: social care, cultural heritage, social cohesion
- Rural areas also shift from a productive to a consumptive area with increased importance given to social, recreational and maintenance functions
- So the multifunctionality concept or paradigm acknowledges the other contributions of farming to society and tries to conceptualize this idea and to study whether it is a useful model to build on for the survival of (part of) agriculture

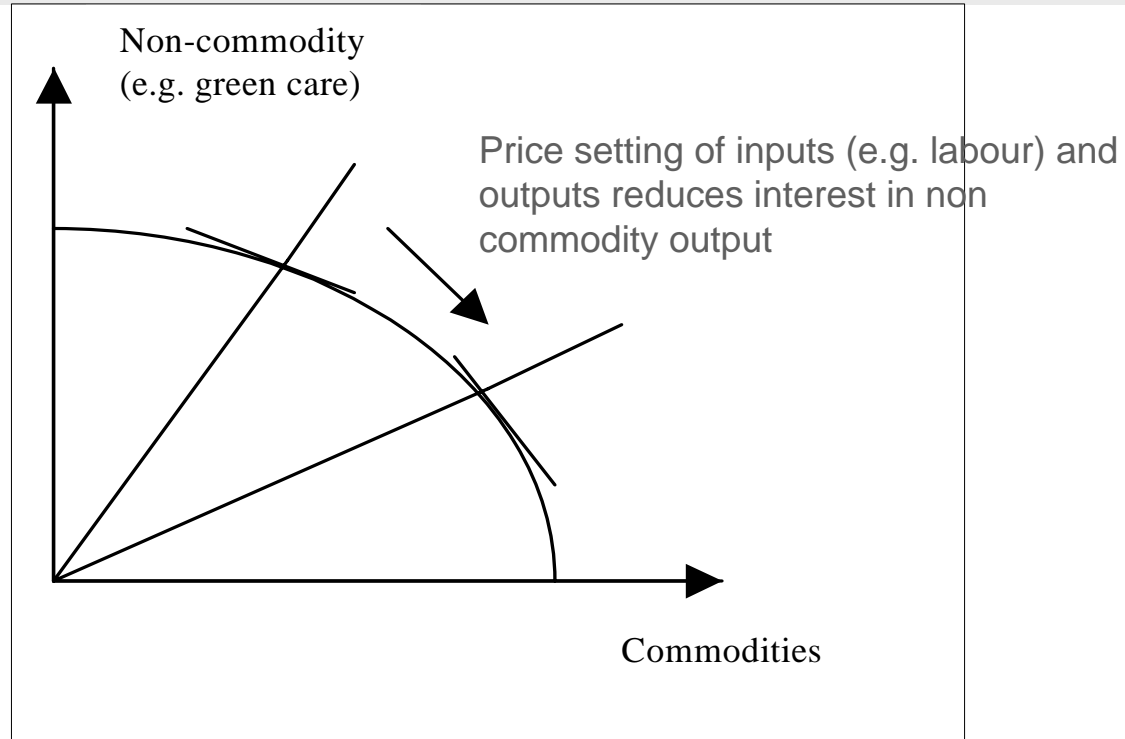
Definitions of multifunctionality

- Multifunctionality has to be understood as the fact that inputs engaged in an economic activity create through this activity more than one output (joint outputs)
- Multifunctionality is not the same as pluri-activity or diversification (although linked): MF looks from one activity point of view while diversification looks whether different activities can be combined (e.g green care as joint product of agriculture and not just as two separated activities that happen 'by accident' in the same firm).
- Multifunctionality can be defined at different system levels (farm, region, society). We mainly wil look at the farm level not denying the importance of other levels (e.g. landscape level)

Basic definition

- MF starts from the idea of joint production
- Problems:
 - Some outcomes are public goods and therefore not remunerated in the market
 - Some outcomes are unintended or so called externalities (positive or negative)
- Result: some desired outputs or outcomes are not or insufficiently supplied

MF: The fundamental problem



MF: Related policy questions

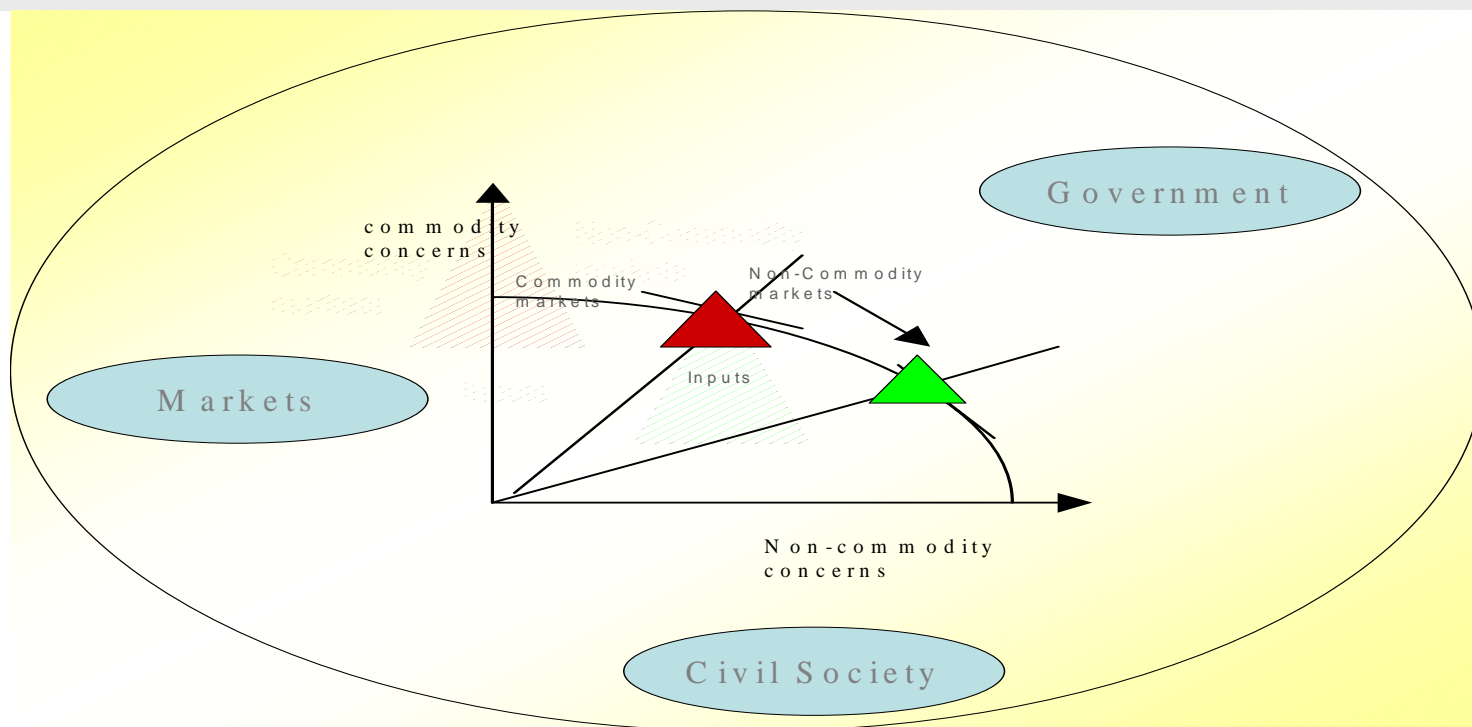
- What is the degree of market failure
- Nature of jointness between commodity and non-commodity outputs: in how far can they be separated ? (e.g. in how far do you need farm activities for care functions ?)
- Can this jointness be changed by modifications in farming practices, technologies input/output combinations ?
- Is farming the lowest cost provider or is non-agricultural provision of the non-commodity outputs possible (or in other words is there any economy of scope) ?

Alternative views on multifunctionality

Three views emerge in literature:

- Supply view: hereby emphasis is put on the joint production of commodities and non-commodities and how this supply can be managed and optimised (optimal provision)
- Demand view: hereby emphasis is put on what society expects from the output bundle and how these concerns can be translated in policies or markets
- Holistic definition: hereby MF is seen as a paradigm shift in the predominant agricultural model with implications for farming and food/non-food systems, their embeddedness in society and functioning of food/non-food markets

Definitions of multifunctionality : schematic representation



Importance of MF for economic analysis

- The multifunctionality paradigm means to accept in economic analysis that farming has multiple outputs that need to be valued when making economic analyses, requiring maybe new methods to measure these social and other values
- Economic analysis should also analyze how the desired social values can be produced at the lowest cost for society. MF may not be an excuse to support farming systems that are not competitive in producing the desired non market outputs
- Economic analysis should also analyse in how far the market and policy incentives stimulate the most efficient producers
- In this analysis, economist should also take into account so called positive spill-over effects of the shift in output bundle (such a higher sales through better image, economies of scope,)

2. Application to Green Care Farming

Green care farming within the MF view

- Green care farming fits within the multifunctionality concept as it changes the input/output combination of farms and it acknowledges that agriculture is a necessity in providing the green care outputs
- In traditional farming systems taking care of elderly, disabled or lower skilled persons was normal, also because of the high need for and availability of non-skilled labour tasks (so labour had high value)
- Because labour tasks on farms became more technical, the value of lower skilled labour diminishes as well as the opportunities for 'green care'
- On the other hand the therapeutic effects are long time recognised (e.g. the international documented family care, mainly on farms in the Belgian town Geel) and and gradually more demanded
- So we have a case of a societal demand which is under supplied because of the bad functioning of regular markets and thus a non-commodity supply problem

Economic questions

- How can green care be incorporated in farms (different management models)
- Which kind of incentive structure (private/public) should be given to make farms taken up this service
- Institutional question: How should supply and demand market be organised

Models of green care farming in Flanders

Model 1: active care farm, individual clients

Care demanders are received on an active agricultural or horticultural farm (max 3 / day)
The care demander is involved in the daily work on the farm as much as possible.
care institution is responsible for follow-up.

Most often the care institution works with one farm;
some institutions are developing a network of care farms

● Model 2: active care farm, groups

Active agricultural or horticultural farms put only their infrastructure at the disposal of a care institution, but do not invest time themselves
Supervisors from the care institution are responsible for the care of the care demanders..

● Model 3: institutional farm

The care farm is started within, or is part of, a care institution. This is called an institutional farm. In Flanders they are often sheltered workplaces, labour care centres, day care centres or other partial services within the care institutions.

Development of green care farms in Flanders

	2003	2004	2005	2006 (sept)
Care farms	46	130	185	212
Institutional farms and sheltered workshops	37	37	38	38
Other social farming projects	10	11	12	12

Incentive structure

- Farmers will make an economic cost-benefit calculation
- Positive: extra labour input from the guests and extra payments
- Negative: own labor input in green care, administration, potential losses in production (due to unskilled labour), ...
- This view leads us thus to a farm management problem in which the farmer calculates the costs versus the extra revenue and his own opportunity cost

Flemish situation

- Subsidies

- Model 1: 40 euro/day (not related to number of patients)
- Model 2: 15 euro/day
- Investment subsidy in case of infrastructural investments (up to 40 %)

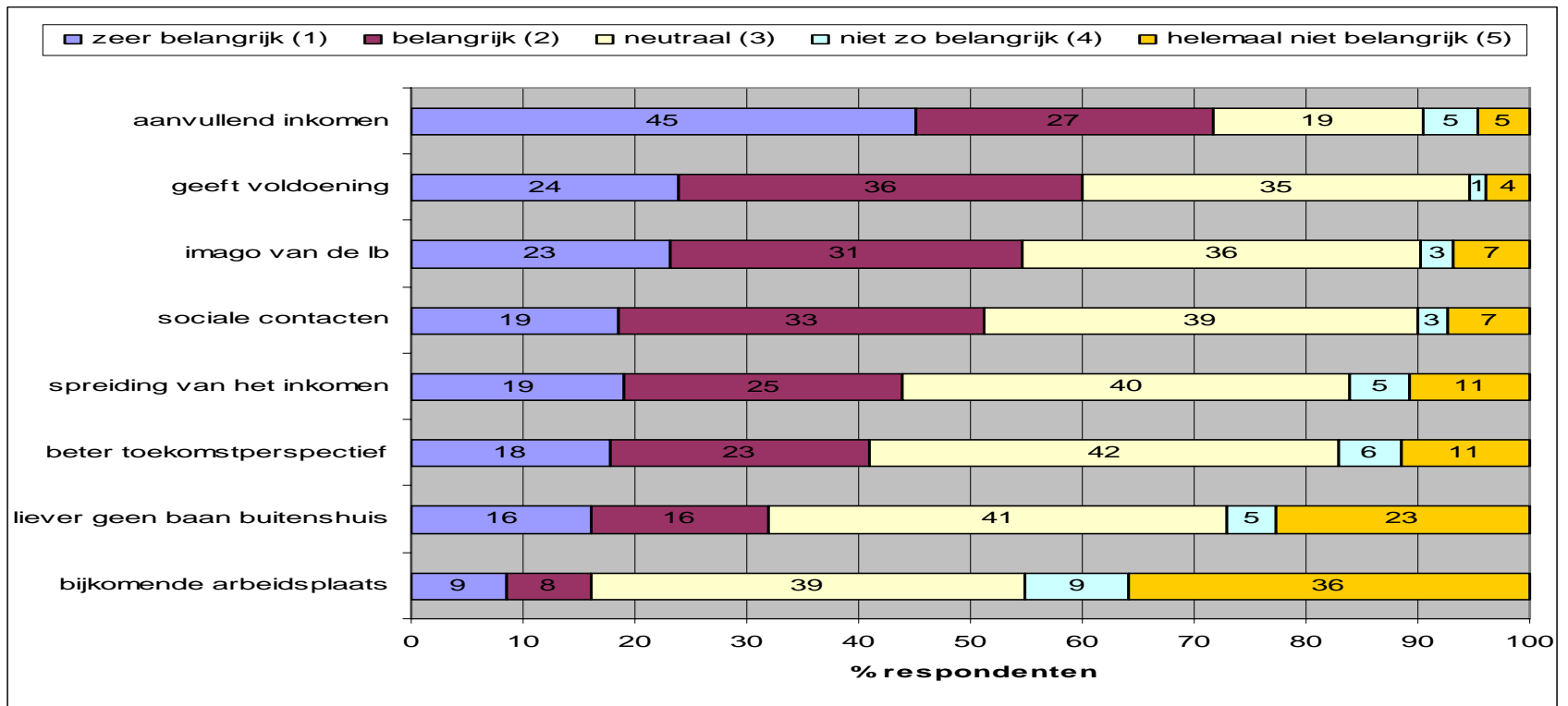
- Revenues and costs (survey results)

- yearly revenue from care activities of 1.000-10.000 € per year
- Yearly cost between 500 - 5.000 € per year
- Investments: 5000 – 10.000 € per year
- High contrast with e.g. the Netherlands (larger scale/more professionalised)
- Most care farms are found in manual labour intensive sectors (higher labour value) e
- Economics of scope when combined with other MF activities (landscape care,)

- Non economic values

- Own satisfaction, exposure to other situations, social image, (opportunity cost)

Important motives for providers of MF



Health sector point of view

- The additional value of green care for therapies ? Is it only contact with nature or also other aspects (family contact/regular work/...)
- Optimal form of health care ?
- Is agriculture the best provider for the service
 - Which model of green care fits best het therapeutic effects searched for (cf. choice in Flanders between the small family model with max. 3 patients or the large scale model)
 - Who needs to pay (the care seeker/ social security/agricultural funds ?)

Holistic view

- In an holistic view the main question is the societal view on both health care and farming and how these can be combined (social model/embeddedness)
- This new model of farming generates tangible (see before) but also non-tangible effects for both the farmer, the patient, the community and the society as a whole
- Related economic questions are then:
 - How to organise the new market (coordination centres)
 - Role of agricultural policy
 - Role of social security or welfare policies in giving the right incentives for the optimal match between both optimal health and farming system
- This lead to institutional questions

Some elements of the holistic model (Flanders survey and round table)

Benefits for Health sector/ Society:

- Least cost solution for care seekers with (limited) labour possibilities
- More time available in health care institutes for patients with less possibilities
- Therapeutic effects under different models
- Care on existing farms is lower cost solution than specialised green care institutes
- Long term effects: lower criminality due to less mental weak youngsters

Effects for farmers

- Social contact, satisfaction, breaking the routine
- labour availability in in peak moments
- negative: loss of time, more difficult work organisation, limitation of privacy

Effects on others

- Farm family members: new perspectives and open mind versus fear for contacts with unknown world
- Better image for agriculture,
- Social embeddedness of farm activities in the community

3. Governance of green care farming

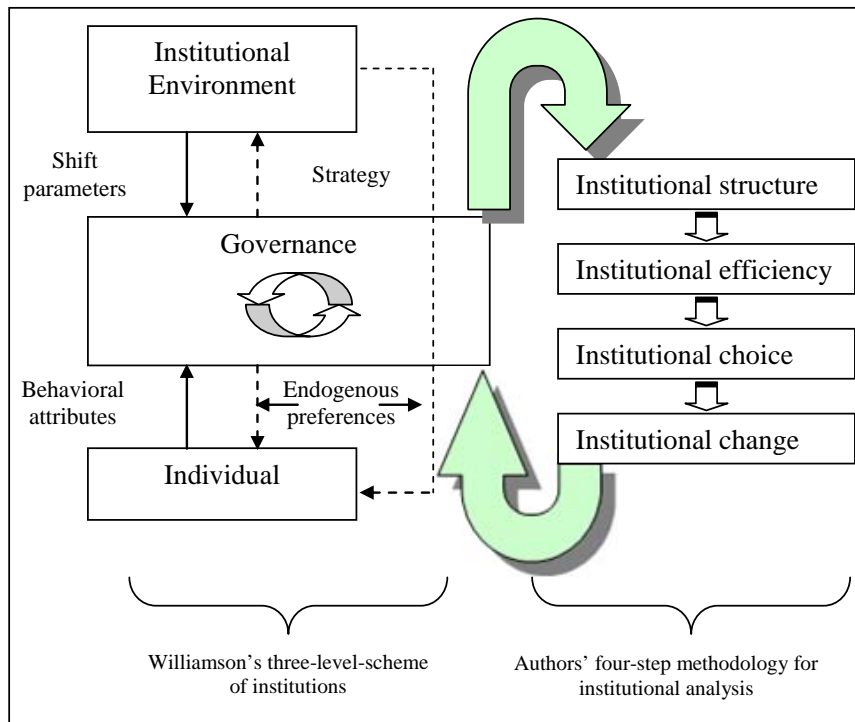
Neo-institutional economics

- Neo-institutional economics expands our neo-classic economic view by telling us that transactions do not take place in a frictionless situation (invisible hand) but that matching supply and demand requires extra costs (transaction costs)
- This leads to the study of governance structures for transactions

Elements of neo-institutional economics

- Central point: transaction of goods and services
- Transactions lead to transaction cost:
 - Search and information cost
 - Negotiation cost
 - Control cost
- Adapted governance structures or institutional arrangements (play of the game) help to lower TCs
- Emerging arrangements are influenced by the existing institutional environment (rules of the game)
- Therefore important to carefully study the institutional framework

Institutional change framework



Green care farming

-Institutional structure including

- * rules in health care sector
- * rules for having a care farm permit
- * subsidies/ social security rules

- Institutional efficiency/effectiveness

- * cost price per patient
- * therapeutic effect
- * demand/supply/ intermediaries

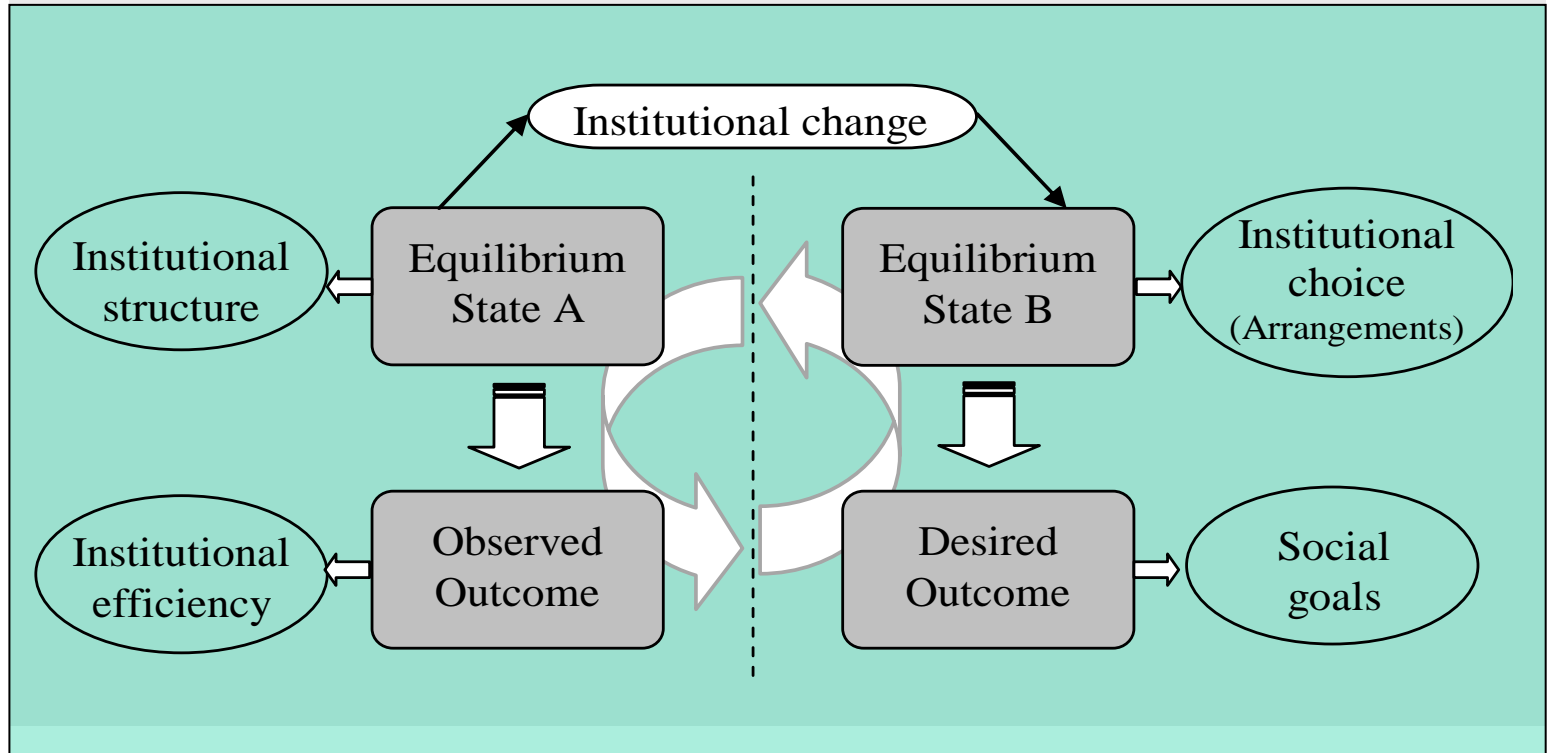
- Institutional choice

- * better mode: alternatives

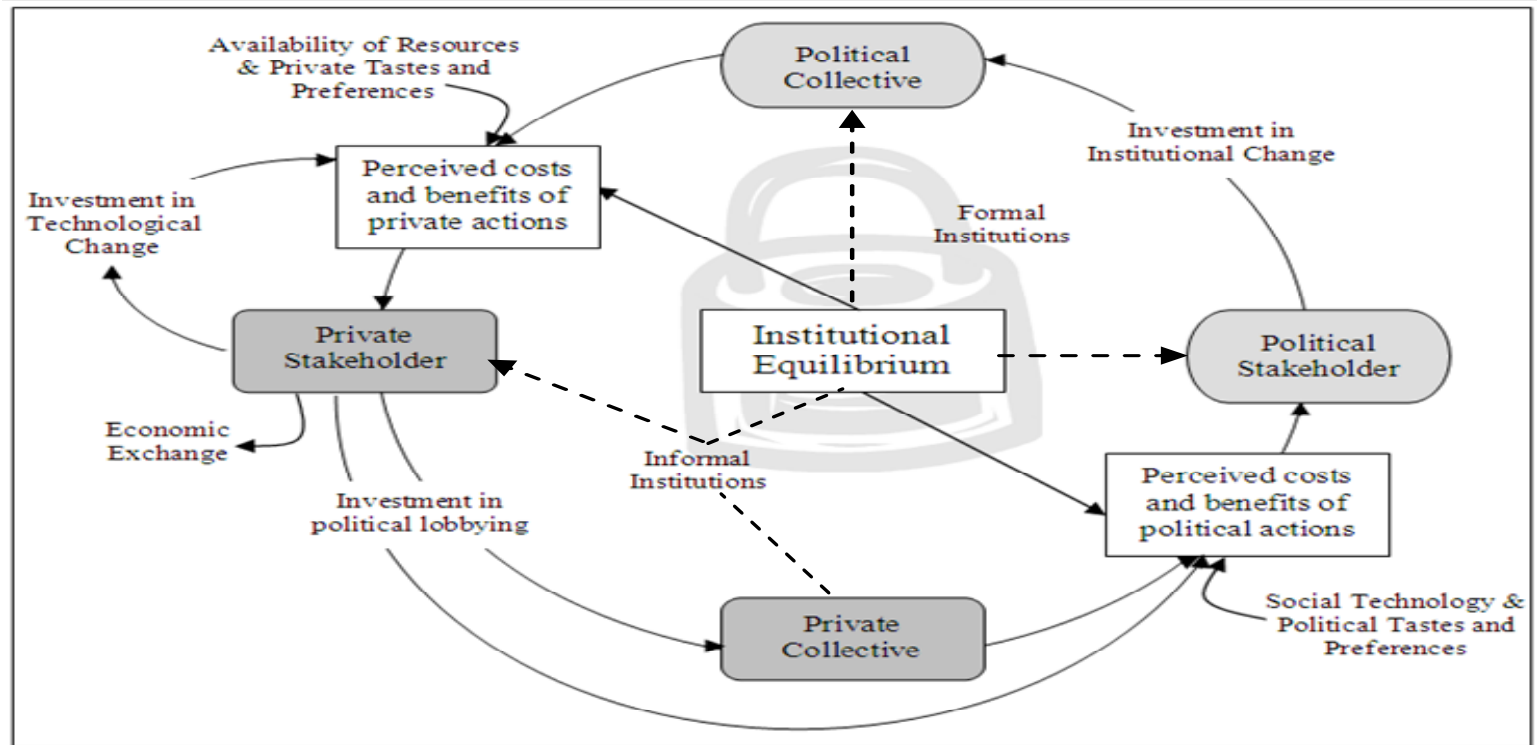
- Institutional change

- * which new rules ?

Institutional analysis framework



Institutional change: political economy



Lessons from institutional analysis

- Goals of green care farming should be clear: which kind of model is needed to have the desired therapeutic effect
- Analysis of factors constraining/stimulating the desired model
- Institutional environment should be optimised
- In an optimal institutional environment, the necessary institutional arrangements (contracts/ coordination centres/ supporting organisations) will emerge

Conclusions

- MF leads to another model of agriculture in which green care farming fits perfectly
- MF can be conceptualised from different viewpoints, leading to analytical frameworks for analysing different economic questions at supply, demand, organisational and societal level
- MF is not a soft paradigm that says that we should keep subsidising non-competitive farms but is arguing for another way to define efficiency and competitiveness
- Green care farming should be competitive in responding to the demand from the health care sector in order to survive (compared with other health care forms)
- Institutional analysis should be used to analyse whether the institutional environment favours the desired model of green care farming
- Hopefully this presentation gives some clues for further economic analyses of green care