Nurturing agroforestry systems in Flanders: An AIS approach

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Introduction: Background

Flanders, 1960’s: naturally integrated land use systems

Flanders, 2000: trees and hedgerows on and between agricultural parcels have largely disappeared

Flanders, 2010-2016: Renewed interest in AF, Efforts to give incentives to farmers to start with AF
Introduction: Problem statement

Current efforts to promote agroforestry:

- Subsidy program
- Eligibility as Ecological Focus Area
- AF-project
  - Support to AF pioneers
  - AF study days
  - Articles in farmer magazines

→ occur very close to the farmer = the decision maker

BUT the **social, technical and ecological environment** affects which farming systems thrive and stay a niche

→ To design policies: focus not only on farmers, but also on the **broader context and the variety of actors** determining this context
Concept and method: conceptual framework

• AIS = Agricultural Innovation System
  – Definition Hall et al, 2006
    “a network of organizations, enterprises, and individuals focused on bringing new products, new processes and new forms of organization into economic use together with the institutions and policies that effect the way different agents interact, share, access, exchange and use knowledge”
  – Basic ideas of AIS:
    • Research, education and extension are not sufficient to bring knowledge, technologies and services to the farmer
    • Innovation requires an interactive, dynamic and flexible process which includes a variety of actors dealing with different conditions and complementary activities
Concept and method: Conceptual framework

- Shift in theoretical perspectives:
  - ’70s and ’80s: Early farming systems research
  - ’90s: Agricultural Knowledge and Information Systems (AKIS)
  - 2000s: Agricultural Innovation Systems (AIS)
Concept and method: Conceptual framework

• Framework of analysis:
  1. Key actors and their role
     – Who are the relevant actors and stakeholders?
     – What is their link with AF?
  2. Attitudes and practices of the main actors
     – What are stakeholders’ views on AF?
     – How can stakeholders through their practices influence AF development?
     – What is the impact of AF on a stakeholder?
  3. The patterns of interaction
     – Which partnerships and networks exist between stakeholders?
  4. The enabling environment
     – How do policies and infrastructure create a more or less favourable environment for AF development?
Concept and method: Data collection and analysis

• Between July and November 2015
• Selection of respondents:
  – Participation in previous AF activities
  – Snowball sampling technique
• **25 interviews**
  – Structured around 5 themes:
    • Knowledge, feasibility and desirability of AF
    • Barriers and enabling factors of AF
    • Impact of AF development on the stakeholder
    • Influence of the stakeholder on AF development
    • Other important stakeholders and their characteristics
• **2 focus groups**
  – 16 participants, as diverse as possible
  – Goal: explore stakeholders thoughts and opinions about AF more in depth
  – Making use of the interest-influence diagram
Results

- 15 stakeholder groups
- 5 domains
- AIS mapped according to the conceptual diagram presented by Arnold & Bell (2001) and adapted by Spielman & Birner (2008)
Domain 1: Research and education institutions

- **Flemish research organizations**
  - Very important: great need for more (local) scientific data on AF-performance
  - Start to take up the theme of agroforestry

- **Euraf-network**
  - Important because of their experience with AF-research
Domain 2: Value chain actors

- **Farmers:**
  - Center of the decision making process
  - Low interests:
    - Legal uncertainty
    - Economic uncertainty
    - Assumed extra labor and complexity

- **Value chain actors**
  - If we want AF to be more widely implemented, it has to become an economic story
  - Don’t know about AF at the moment, especially more down the value chain
    - Too far into the future
Domain 3: Bridging institutions

- **Farmer organizations**
  - Lobby and influence agricultural policy
  - Help, advise and inform farmers
- **Civil society organizations**
  - Create a platform and a support base
- **Extension centers**
  - Translate scientific information into practical implications
- **Cities and municipalities**
  - Closest contact with the farmer himself
  - Issue logging permits
Domain 4: Government institutions

- Flemish government:
  - Are considered very influential:
    - Solve current legal uncertainties with respect to AF
    - Provide incentives for AF adoption
    - Provide funding for research

- European government
  - Is steering Flemish policy
  - Provide funding for research
Domain 5: Society

- **Local residents:**
  - In general in favor of more varied landscape
  - BUT AF may impact negatively on open views
    - May lead to resistance of neighbors and residents
- **Landowners:**
  - Need to give permission to farmers to implement AF
  - Fear that trees will lead to a devaluation of their farmland
Discussion

• Economic challenges
  – A lot of questions with respect to profitability
    • Research institutions have to investigate in detail the productivity and financial viability of AF systems
    • Research institutions can explore new marketing schemes in collaboration with the actors of the value chain and civil society organizations

• Technical challenges
  – Negative impact of AF on farm management
    • Research institutions and extension services can demonstrate that tree rows can be spaced at widths suited for existing machinery
    • Farmer organizations can try to come up with new farm management models and provide additional support
Discussion

• **Legal challenges**  
  – Trees in the agricultural landscape are protected through different laws  
  – Landowners have to give permission  
    • **Government institutions** should implement a more steady policy and clarify the place of AF in the existing legislation

• **Social challenges**  
  – In general: people are in favor of a more varied landscape  
  – **BUT** Agroforestry is not always desired by everyone  
    • **Research and government institutions** should monitor the impact of AF on biodiversity, landscape and compliance with the historical character of a region  
    • **Government and civil society organizations** should create more awareness about the value of trees on farms
Thank you for your attention

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