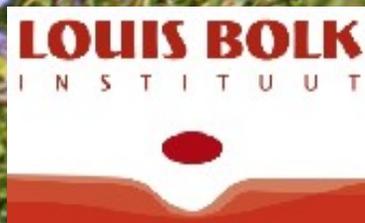


Bottlenecks and solutions for introducing agroforestry: a case study for The Netherlands

23rd of May 2016

EURAF Conference, Montpellier, France

Boki Luske* b.luske@louisbolk.nl
Kees van Veluw
Mark Vonk



Introduction

- Policies and programs to maintain and enhance biodiversity in NL
 - CAP 2014-2020 (EC, 2010)
 - ANLb 2016: new system for agri-environmental schemes (van Dam, 2015)
 - National Nature Networks (IPO, 2015)
- ‘Agroforestry’ not mentioned

Introduction

“deliberately integrating woody vegetation (trees or shrubs) with crop and/or livestock production system to benefit from the resulting ecological and economic interactions” (den Herder et al. 2014; Mosquera-Losada et al. 2009)

- Offers a number of ecosystem services and environmental benefits (Jose 2009)
- However, adoption of agroforestry systems progresses slowly in NL



Research questions

What are the bottlenecks for (further) implementation of agroforestry systems in NL?

What are possible solutions to overcome these bottlenecks?

Methods

- Problems encountered during designing and planning of new agroforestry initiatives in NL (regulations and schemes)
- Semi-structured interviews with farmers
 - Farmers' perspectives on agroforestry
- Consultation of other stakeholders
 - Nature organisations, agricultural sector, rural development, researchers
- Cross-checking with literature

Results - regulations

- Trees are protected by Dutch Forest Law (BIJ12, 2015)
 - Special permit is needed to remove trees
 - Replanting
 - >20 trees in one row or >1000 m²

Results – land use

- Most important bottleneck is the strict division in land use: “agriculture” or “forest/nature”
 - Most tree species are categorized as “nature”, not as a crop (except poplars, willows for SRC and fruit trees)

Results – land use

- Land use classification
 - When trees are planted, land allotment can be changed from “agriculture” to “nature”
 - Risk of losing land premium per hectare agricultural land
 - Several cases have been reported recently (€400/ha)
- 8 km of hedgerows planted with subsidies several years ago*
- *On agricultural land near Goes, Zeeland*
 - *Voluntarily*
 - *Exemption for Dutch Forest Law*
 - *2016: subsidized by CAP as a greening measure...but this didn't happen*





1,6 km of hedgerow is removed lately, because of change of land use classification

Results – land value

- “Nature” has 2,5-3 times lower land value than “agriculture” (CBS, PBL & Wageningen UR, 2006)
 - NNN therefore offers compensation grant
 - Permanent switch
 - Management, choice of trees are prescribed
- Cultural historic landscape elements on agricultural land also influence economic land value (VNC, 2016)
 - Protected elements narrow down the land use

Results - policy

- Agroforestry is not acknowledged as a greening measure in NL (Pillar I of CAP)
- Maintenance of trees or hedgerows is only subsidized in pinpointed areas where farmer collectives are active (Pillar II)
 - Effectiveness of nature development
 - Individual farmers fall by the wayside



Maasheggen

foto: VNC

Results - miscellaneous

- Yearly crop specification
 - How to deal with multiple crops?
- In some areas trees are permitted
 - Cultural lanscape values
 - Ancient windmill rights
- Permits for farm extension or buildings depend op non-existence of red list species

Discussion

- Lower economic value of “forest/nature” makes it unattractive to plant trees
 - Additional funding makes it possible to maintain existing on landscape scale (e.g. from agri-environmental schemes)

Discussion

- Need for an integral vision that includes trees and landscape elements as part of the agro-ecosystem
- Focus on integration of the two land use types instead of segregation
- Different land use classification with more flexible elements
 - In the past: “Temporary forests” (Jansen, 2004)
 - Room for experiment

Discussion

- Ambitious farmers that are willing to experiment
- Acknowledge agroforestry as a greening measure (like in Flanders) (Vlaamse Overheid 2016)
 - Lack of stimulating policy in NL
- From research to practice
 - Trees as functional elements on field, farm and landscape level

Thank you!



AGFORWARD (Grant Agreement N° 613520) is co-funded by the European Commission, Directorate General for Research & Innovation, within the 7th Framework Programme of RTD. The views and opinions expressed in this report are purely those of the writers and may not in any circumstances be regarded as stating an official position of the European Commission.

Literature

- BIJ12 (2015) Boswet, found on 15th of February 2016.
<http://www.portaalnatuurenlanschap.nl/themas/natuurwetgeving/nederlandse-wetten-regelingen/boswet/>
- CBS, PBL, Wageningen UR (2006). Grondprijzen voor verschillende natuurbestemmingen (indicator 1304, versie 03, 13 januari 2006). www.compendiumvoordeleefomgeving.nl. CBS, Den Haag; Planbureau voor de Leefomgeving, Den Haag/Bilthoven en Wageningen UR, Wageningen.
- European Commission (2010) The CAP towards 2020. Meeting the food, natural resources and territorial challenges of the future, communication from the Commission to the European Parliament, the Council, the European economic and social committee and the committee of regions. 18th of November 2010, Brussels
- Den Herder M, Burgess P, Mosquera-Losada MR, Herzog F, Hartel T, Upson M, Viholainen I, Rosati A (2014) Preliminary stratification and quantification of agroforestry in Europe. Milestone 1 Agforward project <http://www.agforward.eu>
- IPO (2015) Natuur in de provincie: één jaar natuurpact in uitvoering. Den Haag, The Netherlands
- Jansen PAG (2004) Van tijdelijk naar permanent bos. Probos, Stichting Bos en Hout, Wageningen, The Netherlands

Literature

- Jose S (2009) Agroforestry for ecosystem services and environmental benefits: an overview. *Agroforestry Systems* 67: 1-10
- Mosquera-Losada, M.R., McAdam J., Romero-Franco, R., Santiago-Freijanes, J.J and Riguero-Rodríguez A (2009). Definitions and components of agroforestry practices in Europe. In: Rigueiro-Rodríguez, A., McAdam, J., Mosquera-Losado, M. (eds) *Agroforestry in Europe: current status and future prospects*. Springer Science + Business Media B.V., Dordrecht, p. 3-19.
- RVO (2015) Toelichting bij de Gecombineerder opgave 2015. Rijksdienst voor Ondernemend Nederland, Den Haag, The Netherlands
- Van Dam M (2015) Nieuw stelsel agrarisch natuur- en landschapsbeheer. Letter of the state secretary of Economic Affairs to the Head of the Second Chamber, 30th of November 2015, Directoraat generaal Agro en Natuur, Directie Natuur en Biodiversiteit, Den Haag, The Netherlands
- Vlaamse Overheid (2016) Ecologisch Aandachtsgebied, found on 11th of April 2016.
- <http://lv.vlaanderen.be/nl/subsidies/perceelsgebonden/vergroeningspremie/ecologisch-aandachtsgebied>
- VNC (2016) personal communication by Vereniging Nederlands Cultuurlandschap, Beek Ubbergen, The Netherlands