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MULTIFUNCTIONAL AGRICULTURE IN PERSPECTIVE: CONCEPTUALISATIONS AND DEBATE IN DUTCH POLICY AND RESEARCH

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ABSTRACT. Conceptualisation of multifunctional agriculture in Dutch policy and research has to be understood within the typical Dutch context and can be related to different perspectives of agriculture and the rural area. The Netherlands is a densely populated country with a very productive agricultural sector, exporting most of its production. Limited space, the needs for and side-effects of agricultural modernisation and increasing societal demands towards food and the rural area have since long set the debate.

Key words: multifunctional agriculture, sustainability, rural development, The Netherlands

Introduction

Conceptualisation of multifunctional agriculture in Dutch policy and research has to be understood within the typical Dutch context and can be related to different perspectives on agriculture and the rural area. Modernisation perspective has dominated for agriculture and rural area for decennia. The growing volume and intensity of production has however created a range of environmental, social and economical problems. In the end of the 1970's this was already debated an integration versus segregation of functions, in relation to spatial planning and especially conservation of nature and landscape. At the end of the 1980's modernisation paradigm was fundamentally questioned: agriculture had to (re)integrate environmental, ecological and social objectives. This got conceptualised as "agriculture with a broader objective", alternative agriculture, integrated agriculture and sustainable agriculture. Due to all kinds of technical measures and governmental regulations costs increased in agriculture, while revenues were decreasing. Agriculture had to respond to this income squeeze and at the same time meet new societal needs or functions. In the 1990's these responses were conceptualised in a

new paradigm: rural development. Currently growing attention for multiple use of space and multiple functions for agriculture is debated in policy and research along three different perspectives: neo-modernisation, rural development and one where agriculture is thought to disappear from The Netherlands. The urge for fundamental changes, in agriculture as well as others sectors, is widely acknowledged. The complex nature of comprehensive technical and institutional changes at different levels, involving diverse actors with different stakes, is recently (re)conceptualized in policy and research as a desirable transition towards a sustainable agriculture. Combinations or integration of multiple functions of agriculture is assessed with respect to its contribution to a sustainable rural development. So the latter, more than the concept of multifunctionality, sets the political as well as the research agenda in The Netherlands.

National context

The modernization perspective (also referred to as rationalization or productivism and described in terms of industrialization) has dominated Dutch agriculture for decades since the 1950's. Its main aim was the production and marketing of cheap (i.e. internationally competitive) food products of standard quality (so-called bulk products with relative low value added) by agro-industry. Within this model primary agriculture became a supplier of cheap raw material for agro-industrial purposes. The increase of production volumes (scale enlargement, specialization and intensification of land use) dominated as a strategy to maintain income parity at farm level (**Roep** 2000, **van der Ploeg** 2003). This perspective was widely shared and advocated as the only viable strategy for farm households. It was enhanced by policy, research, education and extension (**Leeuwis** and **Pyburn** 2002, **van der Ploeg** 2003, **Roep** and **Wiskerke** 2004). Seen from this narrow perspective Dutch agriculture has been quite successful, but the growing volume and intensity of production also created a range of problems.

The loss of nature and landscape values due to massive reconstruction schemes of the countryside for merely productive purposes was already questioned in the early 1970's. In 1975 this resulted in a national policy scheme for the conservation of nature and landscape on farm land in designate areas with acknowledged nature and landscape qualities. Income compensation payments were paid to farmers willing to conserve nature and landscape on their farms. This was referred to as an integration of agricultural production and nature and landscape conservation as opposed to spatial segregation of functions, creating separate areas for high productive agriculture and nature reserves. Since then these two basic strategies, integration of agriculture with nature and landscape versus segregation, have dominated the Dutch policy and research agenda, although in changing appearances (**Dekker** 2002).

But from the 1980's onward, agriculture was confronted with a variety of problems: environmental pollution, loss of food culture and food quality, food scandals, animal diseases, problems with animal health and animal welfare, and so on. In the meantime society had changed as well. This was expressed in growing concerns and distrust as well as different (new) needs and expectations towards food production and rural areas. In the 1980's this attention for other goals or (non-productive) functions of agriculture was conceptualized in concepts like agriculture with a broader objective, integrated

agriculture, alternative agriculture, followed by sustainable agriculture and multiple land use in the late 1980's and early 1990's. Modernisation was more and more questioned for its mono-functional, merely productivist perspective towards agriculture and the countryside. Modernisation thus increasingly ran counter to its societal limits. The obvious was questioned: agriculture needed a new "license to produce" from society (**Frouws and Leroy 2003**). The above problems had already provoked a range of interventions, measures and restrictions to avoid or overcome these side effects: introduction of production rights and quota systems, environmental measures and emission reducing techniques, nature and landscape conservation schemes protecting valuable landscapes, animal welfare standards, food safety measures, etc. But this did not solve problems. On the contrary, these rigid rules and regulations created new problems for agriculture: a growing administrative burden, inflexibility and increasing costs. At the same time value added generated in the agro-industrial supply chain was under severe pressure due to bulk production, overproduction, changing consumer's demands and changing policies as part of world trade negotiations. Agro-industry faced a difficult shift from bulk products for a globalising market to products with more value added. This put pressure on prices for off-farm deliverables (raw material) and subsequently family farm incomes.

So, since the midst of the 1980's costs at farm level increased considerably, while revenues stagnated or even decreased. This income squeeze (**van der Ploeg et al. 2000**) urged farmers to look for alternative development and income strategies aside from or outside the agro-industrial value chain. They developed and engaged themselves in several kinds of promising (new or revitalized) activities serving particular consumers or societal needs and functions: on-farm processing and direct sales, marketing of high quality products, management of nature and landscape, farm integrated care activities, organic farming, energy production, and so on. In the 1990's these strategies were conceptualised in terms of rural innovation, rural development activities (broadening, deepening and regrounding; **Knickel and Renting 2000**, **van der Ploeg and Renting 2000**, **Living countryside...** 2002) and lately green services (**Dagevos et al. 2004**).

To some extent farmers were encouraged to do so, e.g. by policy schemes stimulating rural innovation and subsidising related investments. However, this also resulted in controversies among farmers, politicians, scientists, agro-industry, nature conservation groups, consumer groups and other stakeholders. This has triggered a still continuing debate whether agriculture could fulfil and should meet all kind of (new) needs and functions and whether this represents a promising, sustainable way out of the crisis in agriculture (a rural development perspective). Or that, alternatively, producing raw material for the agro-industrial value chain as efficient as possible, by means of ongoing scale enlargement and cost price reduction, is still the most promising development strategy in making agriculture sustainable. This is a plea for further modernisation, but one that accounts for some basic social demands with respect to environment, animal welfare and food safety in obtaining a new "license to produce" from society, a socially responsible agriculture. This is a neo-modernisation perspective.

Others, in turn, argue that an export orientated, low value added agriculture has no future in The Netherlands because it cannot compete at cost price any longer and because there are other needs and functions at stake in rural areas (e.g. residence, recreation, nature, infrastructure and so on) that are backed by a powerful demand (wealthy citizens, consumers, real estate developers, etc.). The diverse, often conflicting spatial claims have since long been studied and framed in terms of multiple use of space (**Ko-revaar and van Loenen 2003**, **Multiple...** 1999, **Vereijken et al. 2000**).

Although multiple demands and functions are heavily debated in The Netherlands, the concept multifunctional agriculture appeared only for the first time in a study of Dutch Agricultural Research Institutes in 1996 concerning a research agenda for MFA (**Vereijken et al.** 1997, **Vereijken and Hermans** 1998). This study was initiated and financed by the Ministry of Agriculture, Nature and Fishery, following the EU agenda to adjust the CAP in terms of MFA in order to meet demands in world trade negotiations. In this context (WTO) the OECD has conceptualized MFA in an extensive OECD-report almost exclusive in economic terms and (world) trade negotiation issues. Only recently some economic theory based and policy-oriented studies in The Netherlands have focused explicitly on the concept of multifunctionality of agriculture (**Vereijken** 2001). Furthermore some research focuses on multifunctional farming systems.

Of course similar developments and conceptualizations took place all over the world, but there is a clear Dutch angle. The Netherlands is a relatively small, densely populated country, where agriculture is using about 75% of the national surface and realizing a relatively large production volume, depending on massive inputs and export markets (80%). So, there is a lot at stake and there are a lot of different stakes. However, issues of environmental pollution, conservation of nature and landscape, spatial planning of multiple functions (integration versus segregation) and the future size and role of primary agriculture in rural area and agro-industrial value chain dominate current debate.

As already mentioned above, one can distinguish three main positions in the Dutch debate with respect to the future role of (primary) agriculture. A role defined by its future function within the agro-industrial value chain and its future functions in rural areas. All three positions entail specific claims towards policy and research.

The Neo-modernisation perspective conceives agriculture, both in analytical and normative terms, as a predominantly mono-functional activity driven by globalizing food supply chains and global competitiveness. Mono-functionality and ongoing scale enlargement are considered necessary to increase economic efficiency and to safeguard the competitiveness of the Dutch agro-industrial sector. If present at all, multifunctionality is restricted to the regional level and used to promote a segregation of functions and create space for undisturbed agricultural growth at the farm level. That is, without the burden or obligations to fulfil other rural functions.

In turn, the rural development perspective perceives agriculture as inherently multifunctional, i.e. the technological mediated interaction between man and nature co-produces all kind of (known and unknown, intended and unintended, desired and undesired, positive or negative) coherent set of social and material effects. Thus, agriculture has potential to integrate multiple functions of a diverse nature, also non-food, non-agrarian and non-land-based ones. At the same time agriculture is subjected to an income squeeze: costs rise and while the share in value added of the agro-industrial chain reduces. The contribution of agriculture to new societal demands or functions is thus seen as highly relevant for sustainable farming and attractiveness and liveability of rural areas. From this perspective specific attention is given to (new or revived) farm-based rural development activities along the dimensions of broadening, deepening and re-grounding that sustain farm family incomes, strengthen rural economies and respond to new societal demands at large.

This shift away from primary agricultural to other activities and rural entrepreneurship is also envisioned in the third, less unified, perspective, but more radically. Agriculture will more or less disappear. First because the agro-industrial value chain will not

survive in globalized markets and second because of powerful, urban-based public and private functional claims on rural areas other than agricultural (**Vereijken** and **Agricola** 2004).

Nowadays the urge for fundamental changes in agriculture to respond to new needs and functions is widely acknowledged in The Netherlands. The complex nature of comprehensive technical and institutional changes at different levels, involving diverse actors with different stakes, is recently (re)conceptualized in policy and research as a desirable transition towards a sustainable agriculture (**Roep** and **Wiskerke** 2004). The outcome and path of transition are, however, still heavily debated.

Dutch policy towards agriculture and rural area is quite diverse either. Although neo-modernization is still dominant, policy is supporting different perspectives at the same time. It wants to sit on the fence, run with the hare and hunt with the hounds. The typical Dutch solution to this problem is spatial differentiation in planning and policy schemes: areas with more favourable conditions for ongoing modernization (practically monofunctional areas) and areas with less favourable conditions where different functions are to be integrated.

Main epistemic communities dealing with multifunctionality

In The Netherlands three main epistemic communities in policy and research can be identified. Only the community of economic scholars work explicitly with the concept of multifunctionality in relation to agriculture. The other two work with concepts that in fact do study multifunctionality of agriculture and rural area. These are:

1. A community of economic scholars, divided in different subdisciplines, is working explicitly with the concept of MFA from merely a theoretical angle and studying its applicability in a new policy framework. They are responding to the introduction of the concept in the EU in the context of WTO negotiations and reform of the CAP. The OECD and FAO reports are the main points of references.

2. A community of scholars, studying multiple functions and multiple use of space. This has a long-standing tradition in The Netherlands. Core disciplines are urban and rural planning, landscape architecture and social geography.

3. A community of rural development studies, that is more interdisciplinary with scholars from rural and development sociology, institutional and regional economy, geography and agro-ecology. These scholars are part of a growing international network.

Multifunctionality and sustainability

Sustainability, and more currently transition to a sustainable society, is the prevailing concept in policy and research. It is used as a concept for assessing particular developments. The same goes for the concept of rural development, although this is less common. Multifunctionality (or monofunctionality) is thus assessed on its contribution to a sustainable rural development.

Conclusions and discussion

Little interest has been given to the concept of multifunctionality of agriculture in The Netherlands so far, both in the political debate and in scientific works. The economic community is the only one dealing explicit with the concept in their work and this is mainly policy-oriented. The other ones that have been identified (scholars studying multiple functions and use of space and community of rural development studies) work with concepts that in fact do study multifunctionality of agriculture and rural area without referring to the concept.

In general, researchers and politicians still stick more to other concepts such as multiple use of space or externalities of agriculture, more related to the specific Dutch context, notably characterized by a high population density leading to land-use conflicts, an increasing loss of competitiveness of farming and environmental pollution caused by agriculture.

In different perspectives towards agriculture and rural area, multifunctionality of agriculture is assessed differently with respect to its contribution to a sustainable rural development. This sets the political as well as the research agenda.

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WIELOFUNKCYJNE ROLNICTWO W PERSPEKTYWIE: KONCEPTUALIZACJA ORAZ DEBATA W HOLENDERSKIEJ POLITYCE I BADANIACH

Streszczenie

Koncepcja przeprowadzonych badań opiera się na założeniu, że wielofunkcyjność rolnictwa w holenderskiej polityce i badaniach należy rozpatrywać w odniesieniu do specyfiki rolnictwa holenderskiego. W Holandii koncepcja wielofunkcyjności pojawiła się w latach siedemdziesiątych wraz z problemami wywołanymi negatywnymi skutkami intensyfikacji rolnictwa. Dalszy rozwój w latach osiemdziesiątych i dziewięćdziesiątych przyczynił się do rozszerzenia koncepcji wielofunkcyjności i określenia definicji: „rolnictwo szerszych celów”, rolnictwo alternatywne, zintegrowane rolnictwo i zróżnicowane rolnictwo. Wielofunkcyjność rolnictwa oceniono z uwzględnieniem jego udziału w zrównoważonym rozwoju obszarów wiejskich. Obecnie zrównoważony rozwój obszarów w większym stopniu niż koncepcja wielofunkcyjności koncentruje uwagę zarówno polityków, jak i badaczy w Holandii.