

Multiple Futures: A research agenda for agrarian sociology

Introduction

Agrarian studies at the Rural Sociology Group at Wageningen University (RSO) covers a broad range of geographical settings, both in Europe and the Global South. This chapter outlines our joint agenda of research interests in agrarian sociology.

Agrarian sociology intersects with the broader domain of rural sociology. We use the term 'agrarian sociology' here for a sociology that covers the process of and all interrelationships with agricultural production. Rural life has a sider meaning, insofar as is also understood as encompassing the non-agricultural sphere in rural areas, but agricultural production can also take place in non-rural places. Agricultural production is interwoven with rural development - and food consumption - but to prevent overlap with the chapters in this book on place and on food, we do not discuss those issues here. Thus, while the three chapters on agrarian sociology, place, and food are presented as three different research themes, that is only in the present construction.

The following section first introduces a main thread in our sociological research on agriculture: the understanding of diversity in farming. To introduce this topic, we go back in history and review some of the ideas of E.W. Hofstee on the subject. Hofstee was the first chair of rural sociology in Wageningen, and his early work was mainly oriented towards the post-Second World War reconstruction of rural space and life in the Netherlands. The second section summarises what we consider to be the main elements of agrarian sociology at Wageningen. The third section outlines contemporary and future research themes.

Perspectives on diversity and structuring

Meaningful diversity

E.W. Hofstee's interest in the concrete, the lived, and the particular yielded the concept of farming styles in agricultural production. A farming style can be defined as shared normative and strategic ideas about how farming should be done. This implies an analytical inversion: one should not try to understand the practice of farming from the structural conditions to which the farmers respond but rather move the centre of analysis to the agency of farmers as creative actors. Indeed, Hofstee believed that rural sociology should emancipate itself from structuralist and functionalist 'adjustment sociology'. The understanding of rural life in terms of an adaptation to 'order' was narrow,

¹ All authors are in the Rural Sociology Group, Wageningen University. The authors thank Oona Morrow and Bettina Bock for their comments on an earlier version.

incomplete and wrong, he thought, since it erased the agency of people in the creation of the world they inhabit.

Hofstee (1946) arrived at the idea of farming styles through a comparison of the Woldestreek (a region in the eastern part of the province Groningen) with the Zuidelijk Westerkwartier (a region in the western part of the province of Groningen). In the Zuidelijk Westerkwartier, animal husbandry was dominant, while the Woldestreek was almost exclusively characterized by arable farming. Hofstee asked how this difference could be explained.

In order to understand this difference between the two regions, Hofstee investigated four possible causal factors: their geographical characteristics, market relations, social relations, and historical backgrounds. The divergence could not be explained geographically, he reasoned. On the contrary, it was difficult to find two other agricultural areas in the country that showed a stronger geographical similarity. Both were on a belt of low-lying ground, with mostly low-lying peat soils intersected by a few higher sand ridges and the peat soils becoming clay soils in the north. Differences in market relations also seemed a very unlikely explanation. The distance to the main market in the city of Groningen and infrastructural connections were guite similar, as were the legal and political relationships of the two regions to the city.

Distinctions in social relations likewise failed to offer an explanation. Servitude and serfdom had disappeared very early in both regions, and the farmers' right to land was much the same. When people had moved into these areas, the farmers were allowed to draw ditches forwards and backwards through the rough terrain perpendicular to the road. The farms that emerged from this practice were thus long, narrow strips of land stretching

from the road into the landscape, creating the ribbon settlements typical of both Woldestreek and Zuidelijk Westerkwartier.

Hofstee did not find essential differences in historical backgrounds prior to the mid-nine-teenth century, either. The difference between animal husbandry and arable farming had developed in more recent times. Or rather, Woldestreek had changed while Zuidelijk Westerkwartier stayed the same. In Woldestreek, land used for animal husbandry had been converted into arable land, a change effected at great expense, both in terms of heavy, laborious work and high cost. Why, then?

Hofstee found that the transformation in the Woldestreek had occurred over the course of around a century in total, taking until the mid-twentieth century, was primarily the result of a changing group ideal. The people in Woldestreek had chosen to take up arable farming. This, Hofstee argued, was the farmer's pride and glory. Over time, arable farming had developed into a collective ideal. one that every member of the farming community endeavoured to pursue. This different style of farming thus gradually acquired a strongly normative character. To the west, meanwhile, in Zuidelijk Westerkwartier, the old style of farming, in which cattle-breeding was taken as normal and self-evident, kept its full force.

Hofstee thus concluded that the characteristics or structure of agricultural life in any one area could not be considered merely as the sum of attempts to adapt to the external circumstances with which the farmers were confronted. This structure of farm life is also determined – sometimes to a large extent, indeed decisively –by ideals, perceptions and ideas that consciously or unconsciously prevailed among the people there. And this

might result in a particular farming style – or *meaningful diversity* in agricultural practices.

The notion of meaningful diversity informed many studies on farming styles (e.g. van der Ploeg & Roep 1990, Roep et al. 1991, Roep & Roex 1992, van der Ploeg et al. 1992, de Rooij et al. 1995, van der Ploeg 2003). These did not necessarily look at differences between regions but also considered, for example, variations within a region or agricultural sector. They also included a critique of linear thinking about modernisation, which tends to target a single, optimal, modern, capital-intensive, science-driven farm as the model for good agriculture and indicates which development policies should be promoted, thus marginalising other styles of farming (van der Ploeg 1987).

This critique of linear modernisation also applied the positive value of a diversity focus - an 'eve for diversity' - to very different political-economic situations, such as in the Global South (e.g. Gerritsen 2002) and by embedding farming in the context of household strategies, thereby creating space for studies on multifunctionality, pluri-activity, and new ruralities wherein farming households combine multiple livelihoods (Oostindie 2015, 2018), and urban agriculture (Knapp et al. 2016). In the EU context, this meant studying the reshaping of the societal role of farming and farmers, including rural resistance. For those researching in the Global South, the focus has been on the dynamics of livelihood diversification that has upended previously canonical ideas about *rural development*. The idea of meaningful diversity has further extended to inform interventions in debates on the future of agriculture, the resilience of family farming, and the survival of the peasantry in the context of an expanding capitalism, in both the European context and Global South (e.g. van der Ploeg 2018, Öztürk et al. 2021).

Briefly, the study of meaningful diversity focuses on the action and strategies of (different kinds of) farmers and other rural actors who act upon opportunities given restrictions to create new situations themselves. This research interest also explores how new types of agriculture, new initiatives to establish alternatives to 'mainstream' industrialised farming – create diversity. The next step is to consider farmer agency in relation to structuring processes, since meaningful diversity is the product of creative agency under conditions that are not of people's own choice. This raises the issue of how to conceptualise the role of structuring in relation to the creation and the reproduction of diversity (the assumption is that despite policies that push towards homogenisation. diversity will always be created).

Structuring diversity

An eye for diversity involves the idea that there is not a single type of explanation. This came to the fore in a lively debate around how to combine studies of meaningful diversity and farmer agency with political-economic studies of commodification, state power and social movements (Long & van der Ploeg 1994, Jansen 1998). Three approaches emerged from this debate.

First, there are social-cultural explanations along the lines of Hofstee (emphasising meaningful differences). These explore shared values and norms in different modes of ordering or documenting the doing and thinking (an institutional perspective) in the framing of different styles. Essentially, they adopt an actor-oriented approach that explores farmers' agency. Second, attention is given to explaining diversity from a political-economic perspective. Here, differentiation and the evolving paths of modernisation result from capitalist processes of capital accumulation, economic growth, and competition



Ridging potatoes, photo by Hans Dijkstra

interacting with dominant, hegemonic forces or powers (state, class composition in agriculture) and creating inequalities, opportunities and conflicting class interests. Agency in this sense is attributed to social movements, farmer organisations, and business associations. Third, the reproduction of diversity is also viewed as the result of the *interaction with 'nature'* (as both dead and living matter), that is, different (socio)ecological systems. Science and technology are a (heterogeneous) intermediating force between 'society' and 'nature' and add to the heterogeneity of environmental conditions and thus conditions for human agency.

These different ways of exploring and explaining the reproduction of diversity in rural sociology and agrarian sociology have been combined in different ways by various researchers at RSO and generated fruitful debates. Some wholeheartedly reject the idea of underlying structures, while others argue, conversely, that agency cannot be uncoupled

from such structures. The latter make the point that the literature on farmer agency and political-economic structure, and the search for combining both in building explanations, has often been based on a dualism with, on the one side, a farmer, who is active and performs, creates, thinks, feels, and on the other side, a structure that conditions. 'Structure' is then represented as a 'hyperstructure,' which is external, such as price formation in the world market or agribusiness dominance. Paradoxically, pointing at how prices, capital and corporate power condition farming is then criticised as a too structuralist explanation - paradoxical because it is precisely this critique that reproduces an agency-structure dualism.

In contrast to an agency-structure dualism, or a collapse thereof as an alternative, another approach to structuring can be proposed. In this approach, structures and structuring are, in the first place, not about the external conditioning of farming but rather refer to underlying relationships and processes that co-shape farms and farming practices in the first place (Jansen et al. 2021; Nikol & Jansen 2021). In a hypothetical non-capitalist context, without state and corporations, farming is still 'structured'. Language, education, knowledge, culture, power-relations, labour organisation, and so on exist and make farming possible before a concrete farmer agency comes into place. Farmers as agents reproduce and transform such structures - which are already (historically) co-produced by farmer agency. Accounting for variety in farming styles – the diversity in agricultural practices and livelihood compositions - may thus require an appreciation of the multiplicity of underlying structures and causal mechanisms and analysis of how these may be triggered by contingent events. such as droughts (although it could be argued that since drought have partially become human-made, a more complex analysis of structuring the weather has to be included) and worked upon by human agency. This multiple determination perspective includes meaning or culture as an element in structural transformation in a way that does not reduce the latter to the former.

Key elements of agrarian sociology at Wageningen

The study of diversity in farming encompasses at least the following four central notions, principles and approaches that together have driven and continue to direct RSO research.

A comparative approach

Implied in the attention to diversity in the ways of farming is a strong *empirical focus*. This emphasises the detailed description and analysis of concrete farming practices, not as an expression of some general rules or logical outcome of natural conditions or economic laws, but as something constructed. Hence, the variety of conditions, strategies, contingencies, outcomes, and so on have to be

studied. Only when based on good empirical research can analyses of farming styles, social differentiation, gender relationships, the workings of capital, resource mobilisation, heterogeneity, agency, structuring and so on be generated. These are not a priori given. This serious empirical work then is used for a comparative analysis, comparing different types of farming within a certain type of situation or between geographical settings, e.g. comparing farming in different countries, both the Global North and the Global South. Although many of our studies have compared farm types or styles of farming, it is not the individual farm that is central or just the micro-sociology but the situation and sets of relationships that are produced and within which farming is done. The former is expressed in such things as how farmers create and develop their resource base (van der Ploeg 2018); the latter is expressed in, for example, the work of Frouws (1994) on how the state co-organises, delimits and utilises farmer representation in the making of agrarian policies – which has also informed debates on how to conceptualise smallholders (van der Ploeg 2013, Vicol et al. 2019, Jansen et al. 2021).

Another important characteristic of agrarian and rural sociology in Wageningen is its methodological pragmatism regarding a range of research methods. This does not simply mean an eclectic mixing of quantitative and qualitative methods in research, but a careful selection of research methodology depending on the research question at hand. Hence, studies could build on surveys and quantitative analysis (e.g. Oostindie et al. 2013), ethnographic work (Remmers 1998), narrative analysis combining interviews, participatory observation and document analysis (Stuiver 2008), and combinations of quantitative and qualitative methods for investigating generative causation (Sovová 2020).

A public agrarian sociology

Complementing professional, critical and policy sociology, all practiced at Wageningen, the RSO also practices its own form of organic public sociology (Burawoy 2005). Researchers work in close connection with active farmer, environmental and solidarity groups. This includes, for instance, close collaboration with emerging agri-environmental cooperatives and farmer-led attempts to elaborate alternative, more tailor-made and farm-diversity friendly policy measures (in response to increasingly strict as well as highly generic agri-environmental policy interventions) (Renting & Van der Ploeg 2001, Roep et al. 2003). This work entails an eye for farmer-led resistance that is interwoven with other forms of social activism.

A critique of modernisation

Interacting with this public agrarian sociology, much research at RSO proclaims a critical perspective. In particular, the problems of mainstream post-war agrarian development as a top-down, science-driven process in the North and as modernisation approaches in development interventions in the South have to be critically analysed. The homogenising effect of industrial agricultural policies for progress are an object of study and compared with a variety of developments from below guided by many forms of resistance and collective action. For example, Vicol (2019; also Cohen et al. 2022) shows how contract farming schemes in India intersect with pre-existing livelihood patterns in ways that often challenge standard 'win-win' accounts of agricultural development. Recent research also investigates how critical agrarian studies itself may neglect some local traditions that speak to the questions of food sovereignty and agroecology (Ail 2021).

A sociology of technology, nature and knowledge

As part of a technological university and studying agricultural practice, the RSO has always had materiality as a central concern. Materiality in the form of nature and technology (ranging from non-human to partly human) have always been of central concern in Wageningen, thereby being less burdened by a disciplinary dualism separating nature and society than in the social science faculties of other universities. Agricultural labour is not conceptualised as simply an economic. political, cultural and social process, but labour within the labour process is intricately interwoven with nature, technology, and technical knowledge. RSO faculty have participated actively in lively debates around technology at Wageningen at least since the early 1980s, with arguments developed around many topics. This have included uneven development and technology (IK 1985), the 'scientification' of agriculture (van der Ploeg 1987), indigenous knowledge and farming as performance (Richards 1993), the social nature of the technician (van Hengel 1987), realism in political ecology (Jansen 1998), the possibility of a social reshaping of biotechnologies (Ruivenkamp et al. 2008), the defence of moderate constructivism (van den Belt 2003), what makes artefacts social (Mollinga & Mooij 1989), the construction of intensive water infrastructure as an expression of the modern nation-state (Jongerden et al. 2021), the role of novelty production in the change of socio-technical regimes (Wiskerke and van der Ploeg 2004), relational entanglements between humans and non-human natures (Morrow 2021), tensions between the technical and the political in participatory processes (Córdoba et al. 2014), community seed systems to resist corporate control of technology (Patnaik & Jongerden 2020) and particular methodologies, such as 'technography', to study technology in use (Jansen &

Vellema 2011). These debates have involved substantial interaction (support, co-construction, reflection, critique, etc.) with colleague scientists and interdisciplinary programmes, for example with soil scientists, breeders, ecologists, plant scientists and epidemiologists.

Evolving research themes

This section translates these key elements and principles into a contemporary and future research agenda for agrarian sociology at Wageningen.

Work and labour

As introduced above, work or labour, as both an activity and a relation, has long animated agrarian studies at Wageningen. The concept of 'labour process' has been used to analyse how labour adds value to the objects of labour (e.g. van der Ploeg 2013). This is an important contribution to the larger domain of agrarian studies in which land, land distribution and land grabbing are predominant concerns. Further to the long-term, ongoing issue of the future of the smallholder/family farm (in both the South and the North), four themes around work and labour will inform our future research.

The first theme concerns labour conditions. Processes of agrarian change have profound implications for human labour as embodied subjects. Farm work is physically demanding, often seasonal, low-paving and precarious employment conditions. Yet, farming still depends on labour availability, and one increasingly hears of a labour 'crisis' in farming, not only in regions the North but also in the South. Besides looking at labour in the context of the household, enterprise and extended family, this involves the study of contemporary conditions and trends in wage labour and forms of contracting, on the one hand, and the composition of the labour force and the role of migration, on the other.

Working conditions (activities, wages, health and safety, etc.) often reflect societal inequalities (of class, gender, nationality/ethnicity, etc.), and labour conditions on and off the farm (including the legal status of migrant labourers) are deeply interconnected with different forms of identity. Emerging and important themes in this context include migrant labour (flexible, unorganised, sometimes illegal) and youth participation (no access to land, loss of farming futures).

A second, closely related theme concerns the often hidden gendered divisions of labour in agriculture, both at a macro scale and within rural households, and the scant attention paid to systemic gender inequality in rural development policies (Bock 2015). An important topic is the role of unpaid women's labour in processes of social reproduction, the gendering of agriculture and food systems, and gendered livelihood strategies in different situations. Woman may be differently affected by phenomena such a land-grabbing (Duncan & Agarwal 2017). Of interest is the further evolution of the 'feminisation of agriculture' (e.g. Zimmerer et al. 2015), where a rising share of the burden of farm work is undertaken by women. To what extent does this change rural identities? Research combines a critique of patriarchy and other mechanisms that relegate women to subordinate roles on the farm with the investigation of struggles for empowerment and recognition of women's agency (Bock & Shortall 2017). Recent research explores the gendered nature of mobility (Bock 2017).

Thirdly, the importance of *multifunctionality* and pluri-activity or diverse livelihoods has already been mentioned and will remain an important ongoing research theme in the RSO group (Oostindie 2015). This will be studied within the context of farmers' strategies to diversify incomes in order to maintain and

develop autonomy, as well as classical agrarian questions on the development of capitalism in agriculture vis-à-vis the labour process. This research also involves the growing impact of non-agricultural work experiences and changing gender relations on professional identities and their 'blending'. The issue of quality of labour is an important topic in this context also as it plays a role in the evolution of agroecological movements and discussions about 'new farmers' (people who move into farming).

The fourth research theme for the present and future at RSO, also at the level of the labour process, concerns the various *politics* of production. One topic can be described by the notion of 'resistance of the third kind'. This type of resistance against the totalising logic of capital operates in working practices and farmers' fields and has to be analytically distinguished from organised resistance and

the weapons of the weak (van der Ploeg et al. 2012). It is expressed, for example, in the way that cows are bred, how manure is made and how products are delivered. In short, it is a resistance that is creative (as opposed to reactive) as it reorganises production, reproduction and markets. A related topic is how new technologies, risk management, environmental standards, and so on shape work practices and labour relations within a production unit and become a political domain on the farm but not necessarily recognised as such by the contesting actors (hidden politics). This relates to the study of deskilling and reskilling resulting from new technologies and innovation processes and the extent to which the agricultural labour process differs from the industrial labour process in this respect.

Nature and regenerative agriculture

Agrarian sociology at Wageningen has never

Injecting manure, photo by Hans Dijkstra



been inordinately constructivist; it has always looked at how land users work with nature. For decades, the BSO has been committed to the development for a more environmentally friendly agriculture and challenging the conventions of industrial input usage by researching the constitution and prospects for organic agriculture and agroecology and the role of farmers therein (Jansen 2000, van der Ploeg 2013, Castellanos & Jansen 2018, Nikol & Jansen 2021). Currently, the concept of regenerative agriculture is being refined. Based on decades of experiences in organic farming and agroecology, regenerative agriculture principles go beyond sustainability and the reduction of externalities (against biodiversity loss, soil degeneration, etc.) to incorporate also a fundamentally circular approach to farming. In addition to technological challenges, this aims to address crucial social issues regarding the resilience of agro-ecosystems, vitality of farming communities and role of knowledge systems (van den Berg et al. 2018). Engaging with the social networks, relationships and discourses that underlie such initiatives, agrarian sociologists have a role to fulfil in analysing and debating how regenerative agriculture relates (or not) to recent moves towards a more circular economy. Beyond this again is the ongoing discussion about how to conceptualise nature-society, such as around the notions of anthropocene and capitalocene (Jansen & Jongerden 2021). These notions offer different entry points for a sociological study of major contemporary problems related to climate change, biodiversity, resource degradation and human health.

Technology/knowledge and agrarian change

Classical debates about unequal access to technology, the pervasiveness of a discourse on progress that denies the social character of technology and the negative consequences of some technologies will fall within the scope of our future studies. Technological developments positioned in the latest wave of hope producing narratives about technical futures, related, among others, robotisation, precision agriculture, ultra-low volume pesticide formulations, vertical farming, digitalisation and big data/datafied society and synthetic biology. They raise issues and pose challenges in respect of topics like labour replacement, control and flexibilisation, deskilling and inequalities, contested risk perceptions, increasing dependence upon technology suppliers and the de-linking of food production from traditional social environments.

Another line of research within this theme reflects on knowledge construction, referring to knowledge construction through science and through alternative practices by non-science actors, such as farmers' groups, social movements and art collectives. Rather than assuming a single development path of instrumental knowledge, our research is particularly interested in what matters to people and how different groups and groupings create room for manoeuvre and make new development paths in opposition to the vested interests of current technoscience (Wiskerke and van der Ploeg 2004, Nikol & Jansen 2020, Jongerden 2021). Values, truth and post-truth all inform the dynamics of agricultural politics. This theme also engages with how business power shapes the institutional environment for agriculture, such as Jansen (2017) on the making of pesticide risk regulation and Vicol (2019) on contract farming.

Social property relations of production:

Although new high-tech forms of food production might become less dependent on land, land will remain central for most types of agriculture in the foreseeable future. Land is a special thing: it is not created for the market

(Polanyi, 1957, thus calls it a fictitious commodity), it is non-reproducible (limited) and it is immovable (Watts 2021). Land rights and land struggles will therefore remain an important topic for agrarian studies (one of our research projects, for example, focuses on the influence of the neoliberal land tenure system on the lives of small farmers in Chile). One line of research focuses on 'commoning' (Ruivenkamp & Hilton 2017, Morrow & Martin 2019). It looks at new institutional arrangements, different from typically individualized land property, which could take land out of capital circuits, the necessity for capital to growth and capital accumulation. An example is action research with groups of people who collectively buy a piece of land that is cultivated by a farmer who does not first have to buy the land and whose 'landowners' are often also the consumers of the production (e.g. the Herenboeren concept of shared ownership in the Netherlands). Sustainable production. regenerative farming, and agroecology may become more feasible if access to land is freed from the burden of capital costs. New types of ownership and commoning generate interesting dynamics and raise questions about how new ownership/access initiatives relate to the wider generalised commodity economy and a land market regulated according to the norms of capitalist private property. Relatedly, our work will also contribute to ongoing debates on forms of land control (e.g. Vicol 2017), including inheritance systems (e.g. Villavicencio Pinto 2021).

Politics, resistance, autonomy and social justice

The RSO research interest in diversity is foundational for reflections on policies and politics. For example, we have explored the multiple ways in which smallholder farmers are responding to the contemporary neoliberal environment in Turkey by resisting commodification. This is a resistance insofar as small-

holders do not enter or properly conform to the logic of capital and instead emphasise values and practices of autonomy and sharing. These comprise the maintenance of a non-commodity circuit and the development of what may be identified as a new, dual-circuit articulation involving financial inputs (particularly through engagement in labour relations) in combination with the non-commodity circuit (Özturk et al. 2018). The non-commodity circuit emerges through manifold, variegated and informal linkages structured around kin and community, enabled by mobility and migration. Thus, transcending the rural-urban division of space and going beyond capitalistic relations, these comprise a contemporary form of network-based social commons, or strategies through which rural-based families maintain themselves through a variety of constantly changing practices.

This flexibility and wide range of living arrangements at both the individual and group (family) level pertains also to the village level. It is intrinsically sited in, yet not contained within, either agriculture or the rurality, and invites us to discuss a contemporary 'peasant' way, which consists of the maintenance of autonomy in combination with an increased engagement in labour relations outside the farm. This includes agricultural employment and non-farming economic activities, facilitated in part as a function of urban growth and to which villagers commit for their own benefit. It also involves mobilities, with the usage and development of a variety of inputs to the family farm and the local community/environment. All this implies massive changes to village life, characterised in part by a population flux that is seasonally based but only loosely linked to the agricultural production cycle, and from which alternative ways of 'farming' and 'living' develop that have hardly been studied (Özturk et al. 2018).

Markets

Production is tightly interwoven with distribution. Two ideas related to markets inform our research: first, markets are lived experiences, real markets; second, developing new ways of farming may be strongly related to the construction of new markets.

The notion of real markets implies that we add a socio-political and cultural perspective to the economic abstractions of markets (with supply and demand, prices, etc.). This sociological approach is used to get an understanding of the role of power in market relationships – for example, with regard to how farmers relate to different coffee market channels in Mexico and how contracts are used to discipline banana cooperatives in the Philippines (de la Cruz & Jansen 2018), or, more generally, contract farming as a mode of ordering in capitalist production relationships and its role in contemporary processes of market restructuring and agro-food value chains (Vicol et al. 2022).

Research on new markets may address a range of topics, including the social, cultural and territorial embeddedness of market relations (Methorst et al. 2017, Oostindie & van Broekhuizen 2008, Roep & Wiskerke 2012, Ventura et al. 2011) and the history, meaning and significance of new, farmer-led institutional arrangements in relation to public markets as eco-system service provisioning (e.g. Renting & van der Ploeg 2001, Stuiver & Wiskerke 2004, Wiskerke et al. 2003), fair-trade initiatives and so on. As it concentrates on the mechanisms and pathways that might mitigate and counterbalance hegemonic food market relations (van der Ploeg and Schneider, forthcoming), this theme overlaps in various ways with the food and place programmes of RSO.

Conclusion

Agriculture, central to human survival, is a dynamic field of study with an incredibly interesting and highly meaningful diversity. Agrarian sociology as practiced in Wageningen investigates this. It thereby recognises multiple agrarian futures, supported by an amalgam of relevant practices and drivers that certainly cannot be reduced to logical outcomes of science or economy. Through researching multiple agrarian futures – including related visions, practices and strategies – it aims to show that alternative, more socially acceptable and sustainable agrarian pathways are possible, and already in the making.

- Ajl, M. (2021). Does the Arab Region have an Agrarian Question? The Journal of Peasant Studies, 48(5). 955-983.
- Bock, B. B. (2015). Gender Mainstreaming and Rural Development Policy: The trivialisation of rural gender issues. Gender, Place & Culture, 22(5), 731-745.
- Bock, B. B. (2017). Gender and Mobility, in B. B. Bock and S. Shortall (Eds.), Gender and Rural Globalization: International perspectives on gender and rural development (pp. 8-18).
 Wallingford: CABI International.
- Bock, B. B., and Shortall, S. (Eds.) (2017). Gender and Rural Globalization: International perspectives on gender and rural development. Wallingford: CABI International.
- Burawoy, M. (2005). For Public Sociology. American Sociological Review, 70(1), 4-28.
- Castellanos-Navarrete, A., and Jansen, K. (2018). Is Oil Palm Expansion a Challenge to Agroecology? Smallholders practising industrial farming in Mexico Journal of Agrarian Change, 18(1), 132-155.
- Cohen, A. J., Vicol, M., and Pol, G. (2022). Living under Value Chains: The new distributive contract and arguments about unequal bargaining power. Journal of Agrarian Change, 22(1), 179-196.

- Córdoba, D., Jansen, K., and González, C. (2014). The Malleability of Participation: The politics of agricultural research and neoliberalism in Bolivia. Development and Change, 45(6), 1284-1309.
- de la Cruz, J., and Jansen, K. (2018). Panama
 Disease and Contract Farming in the Philippines:
 Towards a political ecology of risk. Journal of
 Agrarian Change, 18(2), 249-266.
- de Rooij, S., Brouwer, E., and van Broekhuizen, R. (1995). Agrarische Vrouwen en Bedrijfsontwikkeling. Wageningen:
 Landbouwuniversiteit Wageningen.
- Duncan, J., and Agarwal, M. (2017). 'There is Dignity
 Only with livestock': Land grabbing and the
 changing social practices of pastoralist women in
 Gujarat, India, in B. B. Bock and S. Shortall (Eds.),
 Gender and Rural Globalization: International
 perspectives on gender and rural development,
 pp. 52-76. Wallingford: CABI.
- Frouws, J. (1994). Mest en Macht: Een politieksociologische studie naar belangenbehartiging en beleidsvorming inzake de mestproblematiek in Nederland vanaf 1970. Wageningen: Wageningen University.
- Gerritsen, P. R. (2002). Diversity at Stake: A Farmers'
 Perspective on Biodiversity and Conservation in
 Western Mexico. Wageningen: Wageningen
 University.
- Hofstee, E. W. (1946). Over de Oorzaken van Verscheidenheid in de Nederlandsche Landbouwgebieden: Inaugerele rede Landbouwhogeschool Wageningen.
- IK (Imperialisme Kollektief/Kongresgroep). (1985).
 Technologie en landbouw-onderontwikkeling in de Derde Wereld: Kongresmap. Wageningen:
 Studium Generale.
- Jansen, K. (1998). Political Ecology, Mountain Agriculture, and Knowledge in Honduras. Amsterdam: Thela Publishers.
- Jansen, K. (2000). Labour, Livelihoods, and the Quality of Life in Organic Agriculture in Europe. Biological Agriculture and Horticulture, 17(3), 247-278.
- Jansen, K. (2017). Business Conflict and Risk Regulation: Understanding the influence of the

- pesticide industry. Global Environmental Politics, 17(4), 48-66.
- Jansen, K., and Jongerden, J. (2021). The
 Capitalocene Response to the Anthropocene, in
 H. Akram-Lodhi, K. Dietz, B. Engels, and B.
 McKay (Eds.), Handbook of Critical Agrarian
 Studies, pp. 637-647. Cheltenham: Edward Elgar.
- Jansen, K., and Vellema, S. (2011). What is Technography? NJAS Wageningen Journal of Life Sciences, 57(3-4), 169-177.
- Jansen, K., Vicol, M., and Nikol, L. (2021). Autonomy and Repeasantization: Conceptual, analytical, and methodological problems. Journal of Agrarian Change. doi:https://doi.org/10.1002/ JOAC.12468
- Jongerden, J. (2021). Autonomy as a Third Mode of Ordering: Agriculture and the Kurdish movement in Rojava and north and east Syria. Journal of Agrarian Change. doi:https://doi.org/10.1111/ joac.12449
- Jongerden, J., Akıncı, Z. S., and Ayboğa, E. (2021). Water, Politics and Dams in the Mesopotamia Basin of the Northern Middle East: How Turkey instrumentalises the south-eastern Anatolia project for political, military and strategic interests, in L. A. Jawad (Ed.), Tigris and Euphrates Rivers: Their Environment from Headwaters to Mouth (pp. 383-399). Cham: Springer.
- Knapp, L., Veen, E., Renting, H., Wiskerke, J. S., and Groot, J. C. (2016). Vulnerability Analysis of Urban Agriculture Projects: A case study of community and entrepreneurial gardens in the Netherlands and Switzerland. Urban Agriculture & Regional Food Systems, 1(1), 1-13.
- Long, N., and van der Ploeg, J. D. (1994).
 Heterogeneity, Actor and Structure: Towards a reconstitution of the concept of structure, in D.
 Booth (Ed.), Rethinking Social Development.
 Theory Research and Practice, pp. 62-89. Harlow Essex Longman.
- Methorst, R., Roep, D., Verstegen, J., and Wiskerke, J. S. C. (2017). Three-fold Embedding: Farm development in relation to its socio-material context. Sustainability, 9(10), 1677.

- Mollinga, P., and Mooij, J. (1989). Cracking the Code.

 Towards a conceptualization of the social

 content of technical artefacts. Technology Policy

 Group Occasional Paper No.18.
- Morrow, O. (2021). Ball Jars, Bacteria, and Labor: Co-producing nature through cooperative enterprise. Food and Foodways, 29(3), 264-280.
- Morrow, O., and Martin, D. G. (2019). Unbundling Property in Boston's Urban Food Commons. Urban Geography, 40(10), 1485-1505.
- Nikol, L., and Jansen, K. (2020). The Politics of Counter-Expertise on Aerial Spraying: Social movements denouncing pesticide risks in the Philippines. Journal of Contemporary Asia, 50(1), 99-124.
- Nikol, L., and Jansen, K. (2021). Rethinking Conventionalisation: A view from organic agriculture in the Global South Journal of Rural Studies, 86, 420-429.
- Oostindie, H. (2015). Family Farming Futures:
 Agrarian Pathways to Multifunctionality: Flows of
 Resistance, Redesign and Resilience.
 Wageningen: Wageningen University.
- Oostindie, H. (2018). Unpacking Dutch Multifunctional Agrarian Pathways as Processes of Peasantisation and Agrarianisation. Journal of Rural Studies, 61, 255-264.
- Oostindie, H., van Broekhuizen, R., and van der Ploeg, J. D. (2013). Buffercapaciteit Bedrijfsstijlen in de Melkveehouderij, Volatiele Markten en Kengetallen. Wageningen: Alfa Accountants en Adviseurs en leerstoelgroep Rurale Sociologie van Wageningen University.
- Oostindie, H. A., and van Broekhuizen, R. E. (2008).
 The Dynamics of Novelty Production, in J. D. van
 der Ploeg and T. Marsden (Eds.), Unfolding Webs:
 The Dynamics of Regional Rural Development,
 pp. 68-86. Assen: van Gorcum.
- Öztürk, M., Jongerden, J., and Hilton, A. (2018). The (Re) production of the New Peasantry in Turkey. Journal of Rural Studies, 61, 244-254.
- Öztürk, M., Jongerden, J., and Hilton, A. (2021).

 Agriculture and Rural Life in Turkey, in J.

 Jongerden (Ed.), The Routledge Handbook on
 Contemporary Turkey. London: Routledge.

- Patnaik, A., and Jongerden, J. (2020). Social
 Processes of Sharing and Collecting Seeds as
 Regenerative Agricultural Practices, in J. Duncan,
 M. Carolan, and J. S. C. Wiskerke (Eds.),
 Routledge Handbook of Sustainable And
 Regenerative Food Systems, pp. 289-303.
 London: Routledge.
- Polanyi, K. (1957). The Great Transformation: The Political and Economic Origins of Our Time.

 Boston: Beacon Press.
- Remmers, G. G. A. (1998). Con Cojones y Maestría:
 Un estudio sociológico-agronómico acerca del
 desarrollo rural endógeno y procesos de
 localización en la sierra de la Contraviesa
 (España). Thela. Amsterdam.
- Renting, H., and van der Ploeg, J. D. (2001).

 Reconnecting Nature, Farming and Society:
 Environmental cooperatives in the Netherlands
 as institutional arrangements for creating
 coherence. Journal of Environmental Policy and
 Planning, 3(2), 85-101.
- Richards, P. (1993). Cultivation: Knowledge or performance? In M. Hobart (Ed.), An Anthropological Critique of Development: The growth of ignorance, pp. 61-78. London: Routledge.
- Roep, D., and Roex, J. (1992). Wikken en Wegen:
 Bedrijfsstijlen en verschillen in stikstofoverschot.
 Wageningen: Vakgroep Rurale Sociologie
 Landbouwuniversiteit.
- Roep, D., van der Ploeg, J. D., and Leeuwis, C. (1991).
 Zicht op Duurzaamheid en Kontinuteit:
 Bedrijfsstijlen in de Achterhoek. Wageningen:
 Landbouwuniversiteit Wageningen.
- Roep, D., van der Ploeg, J. D., and Wiskerke, J. S. (2003). Managing Technical-Institutional Design Processes: Some strategic lessons from environmental cooperatives in the Netherlands. NJAS-Wageningen Journal of Life Sciences, 51(1-2), 195-217.
- Roep, D., and Wiskerke, J. S. C. (2012). On Governance, Embedding and Marketing: Reflections on the construction of alternative sustainable food networks. Journal of Agricultural and Environmental Ethics, 25(2), 205-221.

- Ruivenkamp, G., and Hilton, A. (Eds.). (2017).

 Perspectives on Commoning: Autonomist principles and practices. London: Zed Books.
- Ruivenkamp, G., Hisano, S., and Jongerden, J. (2008). Reconstructing Biotechnologies: Critical social analyses. Wageningen: Wageningen Academic Publishers.
- Sovová, L. (2020). Grow, Share or Buy?

 Understanding The Diverse Economies of Urban
 Gardeners. Wageningen University. Wageningen.
- Stuiver, M. (2008). Regime Change and Storylines: A sociological analysis of manure practices in contemporary Dutch dairy farming. Wageningen University, Wageningen.
- Stuiver, M., and Wiskerke, J. S. C. (2004). The VEL and VANLA Environmental Cooperatives as a Niche for Sustainable Development, in J. S. C. Wiskerke and J. D. van der Ploeg (Eds.), Seeds of Transition: Essays on Novelty Production, Niches and Regimes in Agriculture, pp. 119-148. Assen: van Gorcum.

- van den Belt, H. (2003). How to Engage with Experimental Practices? Moderate versus radical constructivism. Journal for General Philosophy of Science, 34(2), 201-219.
- van den Berg, L., Roep, D., Hebinck, P., and Teixeira, H. M. (2018). Reassembling Nature and Culture: Resourceful farming in Araponga, Brazil. Journal of Rural Studies, 61, 314-322.
- van der Ploeg, J. D. (1987). De Verwetenschappelijking van de Landbouwbeoefening. Wageningen: Wageningen Studies in Sociologie.
- van der Ploeg, J. D. (2003). The Virtual Farmer: Past, present and future of the Dutch peasantry.

 Assen: Van Gorcum.
- van der Ploeg, J. D. (2013). Peasants and the Art of Farming: A Chayanovian manifesto. Halifax: Fernwood Publishing.
- van der Ploeg, J. D. (2018). The New Peasantries: Rural development in times of globalization (2nd ed.). Abingdon: Earthscan.

Wheat silo in the Kurdistan Region in Iraq, photo by Joost Jongerden



- van der Ploeg, J. D., Miedema, S., Roep, D., van Broekhuizen, R., and de Bruin, R. (1992). Boer Bliuwe, Blinder...!, Bedrijfsstijlen, Ondernemerschap en Toekomstperspectieven. Wageningen: Landbouwuniversiteit Wageningen.
- van der Ploeg, J. D., and Roep, D. (1990).

 Bedrijfsstijlen in de Zuidhollandse

 Veenweidegebieden: Nieuwe perspektieven voor
 beleid en belangenbehartiging. Wageningen:
 Landbouwuniversiteit Wageningen.
- van der Ploeg, J. D., and Schneider, S. (forthcoming). Autonomy as a Politico-Economic Concept: Peasant practices and nested markets, Journal of Agrarian Change.
- van der Ploeg, J. D., Ye, J., and Schneider, S. (2012).
 Rural Development through the Construction of
 New, Nested, Markets: Comparative perspectives
 from China, Brazil and the European Union. The
 Journal of Peasant Studies, 39(1), 133-173.
- van Hengel, E. (1987). Waarom Technologie Zich Leent Voor Kritiek. Spil, 61(62), 9-18.
- Ventura, F., Milone, P., and van der Ploeg, J. D. (2010).
 Understanding Rural Development, in P. Milone
 and F. Ventura (Eds.), Networking the Rural: The
 future of green regions in Europe, pp. 1-29.
 Assen: van Gorcum.
- Vicol, M. (2017). Is Contract Farming an Inclusive Alternative to Land Grabbing? The case of potato contract farming in Maharashtra, India. Geoforum, 85, 157-166.
- Vicol, M. (2019). Potatoes, Petty Commodity Producers and Livelihoods: Contract farming and agrarian change in Maharashtra, India. Journal of Agrarian Change, 19(1), 135-161.
- Vicol, M., Fold, N., Hambloch, C., Narayanan, S., and Pérez Niño, H. (2022). Twenty-five Years of Living under Contract: Contract farming and agrarian change in the developing world. Journal of Agrarian Change, 22(1), 3-18.
- Vicol, M., Fold, N., Pritchard, B., and Neilson, J. (2019). Global Production Networks, Regional Development Trajectories and Smallholder Livelihoods in the Global South. Journal of Economic Geography, 19(4), 973-993.
- Villavicencio Pinto, E. A. (2021). ¿Quién se Queda

- con la Herencia? Identificando mecanismos jurídicos para favorecer el acceso de las juventudes rurales a la tierra en seis países de América Latina. Ultima Decada, 29(55), 4-32.
- Watts, M. (2021). The Agrarian Question, in H.
 Akram-Lodhi, K. Dietz, B. Engels, and B. McKay
 (Eds.), Handbook of Critical Agrarian Studies, pp.
 53-66. Cheltenham: Edward Elgar.
- Wiskerke, J. S. C., Bock, B. B., Stuiver, M., and Renting, H. (2003). Environmental Cooperatives as a New Mode of Rural Governance. NJAS-Wageningen Journal of Life Sciences, 51(1-2), 9-25.
- Wiskerke, J. S. C., and van der Ploeg, J. D. (Eds.). (2004). Seeds of Transition: Essays on novelty production, niches and regimes in agriculture. Assen: Van Gorcum.
- Zimmerer, K. S., Carney, J. A., and Vanek, S. J. (2015). Sustainable Smallholder Intensification in Global Change? Pivotal spatial interactions, gendered livelihoods, and agrobiodiversity. Current Opinion in Environmental Sustainability, 14, 49-60.