Agriculture and Human Values (2026) 43:103
https://doi.org/10.1007/s10460-026-10894-6

SYMPOSIUM/SPECIAL ISSUE

Introduction to the Symposium 'Beyond paradigms: eclectic pathways of agrarian change'

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Received: 1 April 2026 / Accepted: 6 April 2026

Abstract
The future of agriculture is subject to contested debates. What types of seed, technology, and farming systems more generally, are needed to secure access to food for the world's population? State actors, corporate entities, and multilateral organisations often favour technology-intensive 'modern' agriculture, advocating their vision of farming that relies heavily on external inputs such as improved seeds and agrochemicals. In contrast, a range of other actors, including social and peasant movements, challenge these paradigms, promoting alternative, autonomous, small-scale farming systems. How and where do farmers position themselves in these polarised debates? This Symposium interrogates this question through various theoretical lenses. Focusing on diverse farming contexts in South America, Asia, and the Middle East, its four empirical contributions shed light on the multiplicity of farming practices and local imaginaries. In doing so, they challenge essentialist portrayals of farmers and nuance the divided debate on the future of agriculture. The articles reveal how agricultural producers selectively combine ideas and techniques, shaped by values or principles from seemingly opposing, irreconcilable paradigms. We illuminate heterogeneity and hybridisation and call for grounded debates on the future of agriculture that go beyond polarisation.

Keywords Paradigms · Agrarian transition · Transformation · Imaginaries

Introduction

Debates on agricultural development are polarised and increasingly politicised. On the one hand, state and powerful corporate actors, as well as multilateral institutions and philanthropic organisations (e.g., the Gates Foundation and the World Bank) advocate technology-intensive as well as input-intensive modes of agriculture (Gugganig et al. 2023; Aihounton and Christiaensen 2024; Vicedom and Wynberg 2024). On the other hand, social and peasant movements (e.g., La Via Campesina, Agroecology Europe, Transnational Institute), encourage relatively small-scale farming systems, that require limited (external) inputs. While these two camps' ideas and ideals of farming approaches are not homogenous in themselves, they typically take two opposing sides, essentially mirroring the 'conventional' (or 'productivist') versus 'alternative' (or 'post-productivist') agriculture paradigms that have shaped policy debates for decades, since at least the Green Revolution (Beus and Dunlap 1990; Patel 2013). Nowadays, both paradigms are also couched in terms of resilience and sustainability and often justified by claiming to contribute to the Sustainable Development Goals (SDGs) (Freidberg 2020; Dowd-Uribe et al. 2024). As such, discourse plays an important role in the promotion and justification of certain visions and practices. However, the paradigms differ in what they consider sustainable and resilient farming systems and in their proposed means to achieving them (cf. Mockshell and Kamanda 2018; Bless et al. 2023).

Thus, the future of agriculture, particularly with regard to the kinds of producers and their practices, is debated in various circles, from the local to the international. Discussions take place at large conferences as well as smaller meeting halls, university classrooms, and national parliaments, where policymakers, agribusinesses, non-profit organisations, and social movements, appear diametrically opposed.

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Published online: 26 May 2026

Scholars' involvement in, and attitude towards, these ideals has been diverse and varies from conflictual to constructive (Gugganig et al. 2023). Some appear to align with proponents of productivist agricultural pathways to 'feed the world' (Connor and Mínguez 2012; Wesseler and Zilberman 2014; Qaim 2020) whilst others address the value and importance of agroecology and food sovereignty (McKay et al. 2025). In their analysis, the latter often point to the political roots of global challenges (see, for instance, Horlings and Marsden 2011; van der Ploeg 2014; Stone 2022; McKay et al. 2025). Yet, some have also criticised proponents of both paradigms for essentialising specific kinds of agricultural producers (Soper 2019; Luna 2020; McKay et al. 2025).

Thus, visions about the *future* of agriculture are debated in various circles and settings. At the same time, they 'are having profound material impacts in *present* agri-food worlds' (Gugganig et al. 2023, p. 787, emphasis added). Notably, the primary actors in these agri-food worlds, farmers, are often strikingly absent in discussions and policies. It is as if they were mere recipients, bystanders, or executives of certain policies and programmes.

This Symposium[1] seeks to ground the divided debate by examining dynamics revolving around the farm field. The four individual contributions analyse how farm practices and decisions articulate with established (orthodox) ideals of farming. They study how farmers and other actors, engaged in primary agricultural production, navigate a policy environment characterised by opposing paradigms of agricultural development, incorporating the role of 'influential actors and their agri-food imaginaries' (Gugganig et al. 2023) in steering or prescribing practices. Key questions addressed in the articles are: how do farmers' practices articulate with the 'explicit imaginaries' (Sippel and Visser 2021) propagated or prescribed by influential, off-farm, actors? How and where do they position themselves in the debates among policy makers, activists, practitioners, and scholars, and how do they make sense of the seemingly incommensurable paradigms and ideals?

Focusing on different farming contexts in South America, Asia, and the Middle East, the four articles in this Symposium examine these questions through different theoretical lenses. More specifically, the articles analyse how farmers interpret the visions to which they are exposed. Thus, the Symposium focuses on farmers' positions along the spectrum of paradigms, and finds that many farmers are situated in what could be called a 'middle ground' (Janssen and Styles 2018). Before elaborating on these findings, we first offer a brief overview of some core themes and features of what, we contend, is a divided and paradigmatic debate on the future of agriculture.

Binary paradigms of agricultural development

Reflecting on the agricultural debate of the 1970s and 1980s and analysing the writings of key participants in the debate in the United States in those days, Beus and Dunlap (1990, p. 591) identify two 'fundamentally divergent paradigms': a 'conventional agriculture' paradigm characterised by ideas of centralisation, dependence, competition, domination over nature, and specialisation; and an 'alternative agriculture' paradigm emphasising decentralisation, autonomy, harmony with nature, and diversity. In essence, today's scholarly and policy debates about envisioned pathways of agrarian change continue to be shaped by this great divide, although the underlying paradigms and imagined development pathways may be labelled differently: '(neo-) productivist' or 'neo-Fordist' (Buck et al. 1997) rather than 'conventional'; and 'post-productivist' rather than 'alternative' (Wilson and Burton 2015). Taking a broader food systems perspective, Lang and Heasman (2015) complicate the analysis by differentiating between three paradigms shaping agri-food policy today: a (rather outdated) 'Productionist Paradigm' and the more recent 'Life Sciences Integrated Paradigm' and 'Ecologically Integrated Paradigm'. While the Ecologically Integrated Paradigm resembles the 'alternative agriculture' and 'post-productivist' paradigms, the 'Life Sciences Integrated Paradigm' can arguably be understood as a continuation of the productivist paradigm that aims to overcome problems of earlier approaches primarily through high-tech solutions (such as precision farming and biotechnology).

Both paradigms are part and parcel of broader political economic processes. The history of the productivist paradigm dates back several centuries, when empires established gigantic plantations across their colonies. The characteristics of and visions underpinning the colonial plantation also feature contemporary productivist paradigms and conventional farming systems, such as the ideal of large-scale production systems and volumes, and monocropping, that require and result in a simplification of ecosystems (Wolford 2021). In the 20th century, the Green Revolution gave a boost to the spread of the paradigm, when states and quasi private actors from the Global North partnered with state actors in the Global South to spread specific types of seed and farming technologies. Whilst framed in terms of 'development' and food security, the Green Revolution was driven by a political agenda, namely to rival communism (Patel 2013). In the same era, China and the Soviet Union were also engaged in exporting their productivist models or visions of 'modern'

[1] This Symposium is based on a double panel organised by Hofman and Spies at the Political Ecology Network (POLLEN) in Lund, Sweden, in June 2024.

agriculture (Spies et al. 2023) to their allies in parts of the newly independent, post-colonial world. While the practices propagated by the United States, the Chinese state, and the Soviet leadership differed, as they were based on experiences in their own domestic economies, to a certain extent, visions overlapped.

With the end of the Cold War in 1989, geopolitical fault lines disappeared, but the productivist imaginary has become (further) entrenched. Yet already before the ending of the Cold War, that is, from the 1980s onwards, the productivist imaginary has been infused with neoliberal thought, and corporate actors have come to play a large(r) role in rural markets and rural development interventions.[2] Along with the emergence of a global 'corporate food regime' (McMichael 2009), technological innovations, such as precision agriculture and biotechnology, have expanded ideas of agricultural development. Yet in essence, Green Revolution principles or thoughts have not markedly changed. References to the 'long Green Revolution' (Patel 2013), 'Green Revolutions' (McKay et al. 2025), and calls for a 'New Green Revolution' (Bergius and Buseth 2019) exemplify this continuity. The productivist paradigm and its policy narratives have been institutionalised globally.

Meanwhile, across the globe, a different set of actors have been questioning these ideals. Mobilising to stall a further expansion of intensive farming systems, they promote more extensive, 'alternative' modes of farming.[3] Note however that, what has been framed as 'alternative agriculture' (Beus and Dunlap 1990), 'post-productivist' (Beacham et al. 2023), or 'non-productivist' (Wilson and Burton 2015) paradigms of agrarian development are comprised of a heterogeneity of approaches. As explicit in the notion itself, 'alternative farming' refers to agriculture that is different from what is considered dominant or conventional in many parts of the world; that is, the industrial farm systems. Where industrial farming tends to focus on large-scale monocrop production, often, as mentioned above, resulting in simplified ecologies, alternative approaches, such as permaculture and agroecology, foreground ecological holism; the conservation of genetic resources; and biodiversity (see Nikol and Jansen 2021 on organic agriculture). There are a number of other aspects in which the envisioned farming systems differ, such as deep market integration and reliance on commodified inputs versus independence and autonomy in terms of control over resources and production relations; and long versus short supply and value chains. In addition, alternative approaches attend to socio-political and socio-economic issues embedded in farming through the discourse of social justice (McKay et al. 2025).

Probably the most prominent and influential movement of post-productivist agriculture is agroecology, which is discussed in detail by Brunner (2026) in this Symposium. Other related strands, including regenerative agriculture may be considered within this broader paradigm of alternative agriculture (see, for instance, Wilson and Rigg 2003; Beacham et al. 2023). Organic agriculture is also considered 'alternative'. However, the rise of organic agribusinesses, suggesting a conventionalisation of organic farming, has raised questions about organic agriculture as a genuine alternative to the dominant agri-food system (Nikol and Jansen 2021).

The paradigmatic conflict is normative as well. Farmers who do not adopt advice or technology associated with the productivist logic might be dismissed as 'laggards' by proponents of the scientific, input intensive farming pathways (Gugganig et al. 2023). On the flip side, farmers who (increasingly) scale up or invest in input-intensive farming can be equally subject to critique by others. For instance, in her study of cotton seed choices in Burkina Faso, Luna (2020, p. 587) observed that a French activist framed 'farmers who grew Bt cotton as stupid and duped.' Such judgmental statements simplify reality and overlook the complexity within which farming takes place. Farmers' decisions are embedded in specific multidimensional contexts in which a multitude of factors structure their strategies and practices.

Notably, while agricultural producers, as core agents in the production system (cf. Nikol and Jansen 2021), are at the centre of the debate, farmers themselves often remain remarkably absent in the discussions, as noted above. More powerful actors claim to speak on their behalf (see, for instance, James and Sulemana 2014; Isgren et al. 2025; Stiem-Bhatia et al. 2026). At the same time, the incredible empirical heterogeneity of agricultural producers across the world, also within specific jurisdictions, challenges their representation (cf. Stone and Flachs 2014). Yet it is agricultural producers who experience the paradigms and visions in their everyday life. They find specific kinds of seeds and seedlings in their agroshops, advertised by (often) corporate enterprises. They may be targeted by states' modernisation programmes or projects funded and initiated by international institutions and organisations, underpinned by specific paradigms and ideals (Nikol and Jansen 2021; see also Spies and Hofman 2026). Such state and foreign funded programmes may impart and imbue ideologies or visions, indirectly as well as directly. Significantly, they are not necessarily congruent: different policy narratives can coexist, targeting different kinds of farmers and segments of the market. Beyond external, off-farm actors, farmers also influence each other's practices. Besides farmer-to-farmer exchanges of knowledge and ideas, this may also happen

[2] The role of capital, and the penetration of capitalism also plays an important role in discussions about the future of agriculture. This Symposium does not engage with this question in depth.

[3] Some countries in Europe are a case in point, however these are not discussed in any of the articles in this Symposium.

more forcefully, for instance when large farmers control or dominate specific markets (cf. Buck et al. 1997), or when, as observed by Spies and Hofman (2026) in the context of Tajikistan, a critical mass of farmers shifts to specific seed varieties and thereby limits the range of choices available to others. As a result, farmers can close off specific development trajectories for others: they can constrain other producers' imaginaries (cf. Schmook et al. 2023).

Note, however, that the articles in this Symposium do not claim to represent farmers' voices (cf. Flachs and Stone 2019). Instead, they illuminate the varied ways in which farmers interpret visions and policy narratives, and the diversity of their practices, interests, and priorities. The contributions, discussed in the next section, expose, acknowledge, and address farmers' agency by analysing and spotlighting their choices and practices within given sets of structural constraints. As such, the analyses speak to calls by Nikol and Jansen (2021) and McKay et al. (2025) who address the need for scholarly work that acknowledges farmers' agency within a certain context, requiring an interdisciplinary lens that incorporates political economy, political ecology, and science and technology studies (STS), among other bodies of scholarship.

A 'middle ground'? Centring local perspectives

The Symposium investigates diverse themes, ranging from specific seed and crop choices (Panosetti 2026; Spies and Hofman 2026) to visions and imaginaries (Geschewski and Dutta 2026; Brunner 2026). As such, they interrogate the extent to which agricultural producers' practices reflect distinct imaginaries (cf. Jasanoff and Kim 2015). In doing so, the articles illuminate how, and also why, local practices and ideas often challenge notions or expectations of a bifurcation of agriculture, characterised by industrialised farms relying on external input providers alongside autonomous diversified agricultural systems. In other words, they illuminate what can be called 'a middle ground' (Janssen 2018; Janssen and Styles 2018).

Based on ethnographic research, Janssen and Styles (2018, p. 1) conceptualised the notion of a 'middle ground' that 'undermines simplistic, two-sided narratives' associated with agriculture. Up until now, limited attention has been paid to this middle ground, but rather to the 'end points of the spectrum'. 'The middle' is typically not considered a state in itself, but tends to be seen as a transitional stage – a liminal space – that does not fit scholarly taxonomies of farming types or styles (cf. van der Ploeg 2003), such as those discussed in the previous section: conventional versus alternative; productivist versus post-productivist; intensive versus extensive; as well as large versus small. Yet, farmers do not necessarily lean on, or transition towards one paradigm, but instead adopt and combine practices that challenge a rigid, orthodox binary. This might result from practical deliberations, or to mitigate risks, such as when farmers produce specific crops both conventionally, using synthetic inputs, and organically, so targeting different markets. Nikol and Jansen (2021), for instance, observed how some Philippine farmers combined organic agriculture with Green Revolution technologies: 'The result is a variety of practices and a combination of divergent production logics informing farmer livelihood strategies' (Nikol and Jansen 2021, p. 425). Indeed, farmers negotiate practices and weigh short-term needs with long-term desires, which can result in a hybridisation of practices, methods, and knowledge (see also Chambers 2021).

The empirically grounded studies of this Symposium build on these insights, focusing on various actors and communities in diverse regional contexts. They convey the 'in-betweenness' and the often patchy character of farming strategies (Crowley and Carter 2000). Brunner (2026) and Geschewski and Dutta (2026) take a broad perspective on the agrarian visions and imaginaries in case studies in Argentina and India. Spies and Hofman (2026) and Panosetti (2026) centre the analysis on specific crop and seed sectors in Tajikistan and Palestine, respectively. From different angles and using diverse analytical methods, they examine how imaginaries and visions are expressed in local decision-making and everyday practice, as well as how these imaginaries and visions influence and shape material realities (Geschewski and Dutta 2026; Spies and Hofman 2026). In doing so, this Symposium engages with and extends a recent Symposium in this journal on imaginaries of land (Sippel and Visser 2021), focusing on practices rather than land (alone). In the following, we briefly outline the four contributions of this Symposium, before synthesising their key findings in the conclusion.

In the first article, Brunner (2026) investigates the agricultural imaginaries of agroecological farmers in Argentina. Using various and original research methods, including photovoice and a collective mapping workshop, she finds that agroecological farmers' imaginaries are highly diverse. Rather than embodying 'pure' agroecological visions, as their affiliation with agroecology movements and their idealisation in related literature suggests, agroecological farmers integrate seemingly contradictory ideas, practices, and notions from conventional agriculture and agroecology in unorthodox ways, such as the use of plastic mulch by agroecological farmers – which they source from conventional farmers – to reduce the workload. Her findings resonate with recent work by Gugganig et al. (2023, p. 790), who addressed the value of STS scholarship that attends to the

ways in which 'many farmers combine embodied, site-specific knowledge with scientific data, tools and reasoning to fit their own farming practices rather than subjecting to a dominant knowledge regime.'

Geschewski and Dutta (2026) analyse farming practices and imaginaries in an agrarian settlement of Tibetan refugees in southern India in the second article. They analyse and describe how the refugees' practices and visions have changed since the settlement's establishment 65 years ago. The article scrutinises how coexisting visions of input-intensive monocropping, diversified organic agriculture, and agribusiness entrepreneurship promoted by powerful actors, including the Tibetan government-in-exile, have shaped how smallholders imagine and practice farming. The analysis illuminates how farmers negotiate material pressures as well as notions of identity, self-reliance, and spirituality, in their struggles for survival and livelihoods in exile. Geschewski and Dutta spotlight the heterogeneity of practices and visions among the refugee population, by showing how the reality on the ground is often more complex than expected.

The third contribution, by Spies and Hofman (2026), analyses seed sector developments in Tajikistan, investigating farmers' maize and cotton seed choices. Seeds are a contested topic in the international debate on agricultural development, where policy makers, scholars, and activists often take two opposing sides in promoting 'improved' versus local open-pollinated varieties, reflecting (neo-)productivist and post-productivist paradigms. The Tajik context is complex: the legacy of Soviet-era ideals of industrialised farming marks state policies and narratives. At the same time, development agencies and other international actors influence the state's programmes and farmers' practices in varied ways. Integrating political ecology into the analytical framework of the socio-technical regime, the analysis reveals that farmers pursue pragmatic strategies: they invest in high yielding hybrid maize varieties, but opt for local, relatively low quality cotton seed. Spies and Hofman address the politics of cotton and maize production and the agronomic and biological characteristics of these crops, among other aspects, to understand and explain this dynamic. Thereby, the analysis illuminates the 'pragmatic reality of contemporary [agricultural] systems' (cf. McKay et al. 2025, p. 9) and shows how Tajik farmers' strategies elude any presumed dichotomy of production pathways associated with local versus improved seed.

Zooming in on avocado production in the West Bank, Palestine, the fourth contribution, by Panosetti (2026), explores how farmers embrace, reject, or adapt to a productivist development model and investigates the agrarian imaginaries underlying farmers' strategies. Using the case of avocados as an entry point to explore where farmers stand in the debate between specialised export-orientated agriculture and diversified agroecological farming, the article points to the variegated values and visions among Palestinian farming communities and highlights how views and agricultural practices are inextricably linked to politics, which, in the context of the West Bank, revolve around ongoing settler colonial dispossession. Notably, while some farmers associate the productivist model of avocado farming with dispossession and dependence, others regard it as a strategy of building sovereignty and 'protect the homeland by connecting Palestinian land with global markets' (Panosetti 2026). As such, Panosetti's findings resonate with observations of Geschewski and Dutta (2026) in the Tibetan refugee settlement in India, where the productivist model of input intensive maize cultivation has been promoted by the Tibetan government-in-exile and taken up by farmers as a means for strengthening self-reliance. Taken together, these findings challenge the discourse in critical agrarian studies scholarship that considers autonomy and sovereignty key characteristics of alternative farming systems, and associates industrial, commercial farmers with increased dependence and little autonomy.

Discussion and conclusion

Debates about the future of agriculture are tense. On both sides of the spectrum, proponents call for the need to transition towards an ideal type of farming. In and with this Symposium, we have aimed to go beyond paradigms, refraining from normative goals about 'the right pathway'. Using critical social theory to analyse farming practices across the spectrum of conventional and unconventional farming, the articles reveal that many farmers practise agriculture in ways that nuance the idea of a bifurcation of agriculture.

As a series of empirically rich contributions, the Symposium conveys three overarching arguments. First, the articles emphasise the need to examine contextual factors to understand and situate farmers' practices and imaginaries. This includes profound attention to power, that is: politics and political economy; history and culture; ecology and geography; and (material) crop specificities, amongst other aspects (see also Gugganig et al. 2023). Second, the analyses demonstrate that rather than leaning towards one particular paradigm or ideology, local practices and strategies employed 'on the ground' are eclectic: farmers may combine conventional and unconventional seeds, crops, or technologies. This combination of practices and strategies does not necessarily result from careful deliberation or political orientation but reflects a pragmatic approach in 'the middle' (Janssen and Styles 2018). Whilst some farmers follow the advice of specific actors decisively, others selectively adopt

advice, resulting in a sort of 'bricolage' (Benouniche et al. 2014) of knowledges, practices, and techniques. Thus, the Symposium problematises dogmatic notions of ideal farming systems. As such, farmers can defy ideal models or types and so may puzzle, or even disappoint, activists' or policy makers' ideas about farmers' intrinsic motivations (see, for instance, Luna 2020). Third, from a methodological and analytical point of view, the series illuminates the value of multiple – including multi-modal – methods to ground imaginaries. Thus, we concur with McKay et al. (2025, p. 3) who call for more 'agrarian ethnographic accounts.' Participatory, ethnographic studies can shed light on political economy factors and farmers' agency, and the multiple determinations underlying the diversity of farm types (see also Nikol and Jansen 2021). That is, the ways in which sociopolitical, historical, cultural, economic, as well as environmental factors structure farmers' options and manoeuvring space.

Scholarly work can illuminate the ways in which agricultural producers make sense of the debates that revolve around their farm, and the factors that determine or shape their decisions. Incongruence or contradiction in farming visions and practices should be considered an invitation for rigorous scholarly research, offering valuable avenues for critical analyses focused on farming styles and conventions, and the imperatives that shape agricultural production practices. One should not assume single or linear trajectories of change in agricultural practices to emerge, and as Biersack and Greenberg (2006, p. 21) note in their discussion of development programmes, 'any aprioristic assumption of resistance and other oppositional politics … [to propagated practices or visions] could obscure more than it reveals.' Farmers rarely outrightly reject nor uncritically adopt certain visions or practices, but tinker 'with them according to their own tacit knowledge and capabilities' (Gugganig et al. 2023, p. 790). As such, diversity in transformation trajectories should be appreciated and recognised.

We call for (more) dialogue with and between farmers, policymakers, scholars, and practitioners so as to understand the complex factors and determinants shaping land use patterns and practices, and go beyond polarisation. In addition, we fully support calls for meaningful transdisciplinary collaborations with farmers as active partners in the research process (Schwarz et al. 2021; Busse et al. 2023), not only to make their voices better heard but also to illuminate their creative, often non-dogmatic strategies to address real-world problems. Polemic academic and policy debates on agrarian futures can learn from the less paradigmatic approaches on the ground.

Acknowledgements We are grateful to the editor-in-chief of *Agriculture and Human Values* for the trustful cooperation and the reviewers for their thoughtful and critical feedback. We thank the participants of our double panel 'Contested imaginaries? Eclectic pathways of agrarian change' at the Political Ecology Network Conference in June 2024 for the inspiring discussions that helped shape this Symposium. Lastly, we thank Esther Riley for proofreading the manuscript.

Author contributions The conceptualisation, writing, review, and editing of the manuscript were done jointly by both authors.

Funding Open Access funding enabled and organized by Projekt DEAL.

Data availability Not applicable.

Declarations

Competing interests The authors have no competing interests to report.

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