

POSITION PAPER

Who is the subject of agroecological transitions? Local Agroecological Dynamisation and the plural subject of food systems transformation

Daniel López-García¹

Received: March 31, 2020
Revised: August 26, 2020
Accepted: October 28, 2020



Daniel López-García

KEYWORDS agroecology, sustainability transitions, Local Agroecological Dynamisation, participatory action-research, scaling agroecology

1 Introduction: agroecological transitions, for whom?

Having evolved from its roots in agricultural science, agroecology has in recent years been contributing methodologies, reflections and experiences for the development of sustainable food systems from a point of view of radical democracy (Gliessman, 2016). It is thus that social and political aspects have taken centre stage in agroecology in recent years, at the same time as it has gone from being a marginal approach to an “immaterial territory in dispute”, claimed by national governments and large global institutions as much as by worldwide, grassroots organisations such as ‘La Vía Campesina’ (Giraldo and Rosset, 2017). This dispute, brought about by the mainstreaming of agroecology, entails risks of co-optation by international institutions (Rivera-Ferre, 2018). This is the context in which the agroecological movement has been carrying out its debate on the scaling of agroecological practices, and on the risks of the movement’s institutionalisation possibly lending itself to conceptual co-optation and to the associated loss of its transformative features (Levidow et al., 2014; Giraldo and Rosset, 2017). The debate is still on the table, but it has made advances and has opened a new field of research focused on new experiences and knowledge that

results when trying to apply agroecology at the food system scale (González de Molina et al., 2019).

The scaling of agroecological experiences has been conceptualised largely as following two paths that lead in different directions and that are often presented as being mutually exclusive. On the one hand is the path of ‘out-scaling’, referring to the process by which the agroecological transition extends over a territory, involving a growing number of social groups (with emphasis on the protagonism of the so-called “peasants”) and promoting changes in food production, distribution and consumption practices (Giraldo and Rosset, 2017; Val et al., 2019). On the other hand is the path of ‘up-scaling’, oriented towards gaining political agency, the development of favourable political conditions for agroecology, fostering the institutionalisation of experiences and the development of public policies to protect, strengthen and enhance them – which are often conceived “from the top-down”. This second path carries a high risk of significantly losing the political principles of agroecology (Mier y Terán et al., 2018; Ferguson et al., 2019). More recently, these two paths have been presented as being complementary and interconnected (Ferguson et al., 2019). From this perspective of convergence, the expansion or ‘scaling’ of agroecology would imply radical changes in the dominant agricultural system, especially in

¹ Fundación Entretantos, Agroecology Department, Valladolid, Spain

terms of incorporating “bottom-up” political approaches and the control of food systems by local communities – especially by those in the primary sector (Giraldo and McCune, 2019; González de Molina et al., 2019).

The expansion of agroecology is understood not only as the dissemination of a set of agricultural practices, but also as the expansion and strengthening of a socio-economic fabric capable of producing alternative food systems (Gliessman, 2016). This would foster interlinking agroecological experiences of production, distribution and consumption in a socio-political movement capable of acting at different territorial scales, within a transformative political project committed to overcoming capitalism, patriarchy and colonialism, and incorporating the contents of what has been called ‘political agroecology’ (Levidow et al., 2014; González de Molina et al., 2019). The objective of political agroecology would be the development of agroecology-based local agri-food systems that would then be promoted through two parallel action frameworks. On the one hand, out-scaling would promote the multiplication, strengthening and interconnection of local agroecological experiences (be they of food production, distribution or consumption; research; social and professional organisations; etc.). On the other hand, up-scaling would promote the development of a political and regulatory context favourable to the agroecological transition.

Although these two dimensions of agroecology scaling are extensively linked (Ferguson et al., 2019), I will focus on agroecology out-scaling, and more specifically on the theoretical and methodological problems arising from the emergence of social subjects to promote the scaling of agroecological experiences to food systems transformations. The expansion of the agroecological transition throughout a given territory, involving a growing number of social groups and producing changes in food production, distribution and consumption practices, has been tied to the emergence of the protagonism of ‘peasants’ and the so-called ‘agroecological peasantry’, as an historical and political (global and meta-) subject for the materialisation of the political project of La Vía Campesina (Val et al., 2019). However, the concept of “peasants” and “peasantries” remains controversial and contested, between being an analytical concept or a political category (Bernstein, 2010; McMichael, 2016).

Additionally, the number of holdings of different types of peasants, family farmers and small farmers around the world are still the majority but always decreasing, especially in metropolitan settings and urbanised societies (Graeub et al., 2016). For this reason, recent discussions underline the need to build plural and diverse social subjects that bring together agricultural and non-agricultural, rural and urban actors to undertake the agroecological transition at the food system scale (Edelman et al., 2014; Giraldo and McCune, 2019). This, however, does not forsake the necessary protagonism of farmers, and specially of the farmers’ organisations closest to agroecology in such processes (Levidow et al., 2014; Giraldo and Rosset, 2017).

As agroecology is an action-oriented approach to do ‘science with people’, agroecological transitions cannot be done without a clear protagonism of farmers (Cuéllar and

Calle, 2011), especially in an urbanised world in which both the rural reality and the specificities of the socio-ecological metabolism of food systems are getting increasingly hidden. In the present paper I will use the broad category of ‘small farmers’ to talk about ‘agroecological peasantries’ (Val et al., 2019), ‘new peasants’ (van der Ploeg, 2010) and the highly differentiated category of ‘family farmers’ (Bernstein, 2010), as protagonists of agroecological transitions at the food system scale.

In the present paper I use the term ‘subject’ as a socio-historical category to name an actor or network of actors committed to promote a specific (political and territorialised) project of transformation (Bernstein, 2010; Val et al., 2019). The proposition of a plural subject (bringing together differentiated actors) of the agroecological transition poses several challenges. On the one hand, in order to multiply experiences, it is necessary to attract the conventional farmers sector to agroecology – because they possess the means of production, but also because they need a change of model (van der Ploeg, 2010). On the other hand, among the diversity of actors involved are some that have so far been absent in the development of alternative food systems or agroecological transitions, specially in Global North settings – such as marginalised social groups or racial and cultural minorities (Simón-Rojo, 2019). In other cases, actors may come from local configurations with deep-rooted historical conflicts – such as between small food retailers and local farmers (López-García et al., 2018a). Such complexity within the subject of agroecological transitions, especially in deagrarianised societies, requires specific approaches. Often various tools and processes need to be adapted to the different profiles found in each territory (Guzmán et al., 2013; Menconi et al., 2017).

With this article I intend to provide some theoretical and methodological insights on how to promote food system scale agroecological transitions in settings where the agricultural social fabric is weak, and in general addressing the condition of a social subject highly differentiated worldwide. Assuming that ‘small farmers’ are to be the protagonist subject of agroecological transitions, I address several issues posed by the challenging construction of such a subject, allied with other social actors in what I call the plural subject of agroecological transitions, specially in urban and deagrarianised societies such as in Europe. The following sections cover three main objectives:

- to analyse critically different dimensions of the differentiated (social) subject of the transitions, with regard to current scientific debates on scaling agroecology (Section 2);
- to propose the Local Agroecological Dynamisation (LAeD) approach as a methodology for activating agroecological transition processes by integrating the difficulties posed by a complex plural subject (Section 3);
- and to discuss some lessons learned, based in case studies from Spain, that mainly involve conventional small farmers in sustainability transition processes, in order to define such a plural subject and provide some insights on how to construct its protagonism in deagrarianised settings (Section 4).

2 The social subject of agroecological transitions at the food system scale

It becomes increasingly difficult to speak of “peasantry” in growing portions of the planet, and in many territories the farming sector is profoundly weak and dependent on the corporate food regime (Bernstein, 2010; McMichael, 2016). Throughout the 20th century and before, the growing portions of the peasantry entering the (capitalist) market economy required the creation of new categories of analysis to address the differentiation process of the agricultural social subject (van der Ploeg, 2010; Bernstein, 2010). It becomes ever more difficult to consider it a homogeneous subject, as it is crossed by numerous contradictions that affect its capacity for action (Holt-Giménez and Shattuck, 2011). Meanwhile, agroecological experiences of production, distribution and consumption often adopt both conventional and alternative elements in their development, indistinctly and in a sequential and/or combined way, to achieve social and economic viability within alternative food networks or systems. These have been called hybrid actors and networks (Ilbery and Maye, 2005; Darnhofer, 2014).

The challenges for the agroecological transitions go beyond ecological processes at the farm scale, and encompass global processes that also cut across the conventional agricultural sector: from the degradation of traditional agricultural infrastructure and institutions, to global trade agreements, diet change or climate change. These problems, which are common to both conventional and alternative actors, could constitute shared platforms of action that also include non-agricultural actors (Holt-Giménez and Shattuck, 2011; Menconi et al., 2017). This potential should not be overlooked. The bulk of agri-food experiences that must be embraced by agroecology out-scaling are obviously small and medium-size conventional ones – since these constitute the majority and have a need to move towards alternative models – in addition to those that already follow agroecological models.

In this sense, hybrid actors are called upon to play an important role in the transition, due to their potential to broaden the social base of the processes, and to build bridges and alliances between conventional profiles and others closer to agroecology (López-García et al., 2018b). On the other hand, the sometimes exclusive pre-eminence that is given to agricultural and peasant experiences subtracts a social base from an agroecological movement that is already as urban as it is rural, leaving out other actors that are essential to making change possible (Tornaghi and Dehaene, 2019). This is especially the case in territories of the Global North, where agricultural and rural social fabrics are weak, and where it is therefore necessary to build alliances, perhaps tactical ones, with deeply conventional actors and alternative non-agricultural actors with links to food consumption, or with urban social movements (see, for example: Holt-Giménez and Shattuck, 2011). With respect to the agroecologies of the Global South, while emphasizing their leaps of scale on the capacity of peasant and rural organisations to strengthen, multiply and territorialize themselves, they also express the

need for much broader social alliances (Mier y Terán et al., 2018; Giraldo and McCune, 2019).

Thus, the social subject of agroecological transitions at the food system scale would have to be a plural subject, protagonised by farmers already aligned with agroecological approaches – perhaps the so-called ‘agroecological peasantry’. These groups at the forefront provide the tractive force pulling conventional farmers, who make up the majority of the world’s agricultural sector, especially in the Global North and in more urbanised territories. Incidentally, conventional farmers are demanding production and marketing models that are more sustainable and require less investment and debt (van der Ploeg, 2010). In an outer circle still forming part of this plural subject, we can find non-agricultural actors, who in turn are in need of new economic and territorial models beyond capitalism. On the one hand we have the agroecological social movement, which in Global North is mostly urban and composed of grassroots groups, NGOs, and networks of community and concerned consumers (Holt-Giménez and Shattuck, 2011; Tornaghi and Dehaene, 2019). On the other hand we have social groups excluded by the corporate food regime and cut off from markets (as is the case of small, traditional food retailers) or from adequate food (Simón-Rojo, 2019).

The complexity of this plural and heterogeneous subject raises new questions in the discussion on how to deal with it. Methodological arrangements for constructing such a subject require dispositives (Val et al., 2019) to manage the divergent interests, symbolic worlds and velocities to step the transition. Specially regarding to a scheme where small farmers are to be protagonists and tractors of a broader space which includes urban and non-agricultural actors. These are developed in the following section.

3 Local Agroecological Dynamisation as a strategy to build plural and territorialised subjects

In recent decades, different methodological approaches for doing science with the people have been developed around agroecology, from an epistemological position committed to the transformation of reality (Gliessman, 2016). This methodological stance is in line with participatory action research (PAR) (Fals-Borda, 1991), since it is a research approach that produces knowledge that is both scientific (universal) and popular (situated); while, at the same time, it activates social processes of community empowerment from the perspective of popular education (Freire, 2012). From among the repertoire of participatory methodological proposals that have been linked to the agroecological approach, the following can be highlighted: participatory rural appraisal, participatory on-farm research, the Campesino a Campesino (peasant-to-peasant) movement, participatory action research, and LAeD (Guzmán et al., 2013, Méndez et al., 2017).

The transition from industrialised systems to agroecological systems requires specific extension practices. These must be adapted to a completely different farming system through

a collective process of individual and social learning (Méndez et al., 2017). Farmers recognise the agroecological transitions as a complex process that links different spatial scales, and that is affected by multi-dimensional factors (Guzmán et al., 2013). Therefore, a complex approach is required that links and coordinates the ecological and productive aspects of agroecological approaches with others that appear at broader territorial scales. This should address issues such as the sustainability and social reproduction of rural communities or the power imbalances that cut across food systems, from the local to the global scale. In this sense, the epistemological stance taken by agroecology proposes to do science with and for the people, and argues that it is the social subject under investigation the one who must define the purpose and objectives of the research, as well as the forms it takes and how it evolves in each situation, in line with the proposals of popular education (Freire, 2012).

The Local Agroecological Dynamisation (LAeD) approach has been developed with regard to such international, both scientific and activist debates during the last few years. It is an application of participatory action-research to the agroecological perspective, to promote sustainability at local food systems level (López-García et al., 2018b). This methodology tries to apply theoretical and methodological approaches developed mainly in the Global South to deagrarianised settings such as the Global North or metropolitan territories worldwide. It mobilises the networks, resources and capacities of local communities through the revival of local agricultural production, farmers social protagonism and self esteem, traditional ecological knowledge, and alternative food networks. To this end, it links participatory action research with other methods of community research and development, in order to improve the capacities of local communities to build transitions to sustainability. This approach has been developed in Spain principally through several doctoral theses produced within the PhD program in agroecology at the International University of Andalucía (Guzmán et al., 2013), deeply connected with Latin America's agroecology movement; and since 2014 it has been developed further as part of the postgraduate diploma in 'Local Agroecological Dynamisation' at the Autonomous University of Barcelona, covering a greater breadth and diversity of cases. In the latter institution, research has been carried out through student field work, in collaboration with public and private entities (López-García et al., 2018b).

LAeD places special emphasis on generating collective processes of action-reflection-action, capable of overcoming the adherence to hegemonic discourses on behalf of actors who are expelled from globalised economic flows (Freire, 2012). Special importance is given to the collaboration of hybrid actors that are capable of connecting conventional and alternative actors in networks of communication and cooperation (López-García et al., 2018b). This facilitates the progressive development of social and ecological sustainability innovation through participatory and multi-actor processes, which are open-ended and non-deterministic, and in which the paths of the transition are built through action, reflection and the empowerment of local actors. The

territorialisation of processes – and of methodological tools – allows the construction of convergent processes based on the divergent interests, perceptions and positions of local actors, building transdisciplinarity (Lamine et al., 2019). Such multi-actor approach thus enhance the possibility of the construction of plural subjects, but requires a long period of time and therefore it is highly dependent on extended funding or social support.

The flexibility of the agroecological approach enables the construction of processes in which local communities are the protagonists in the analysis of their own reality and in the construction of development paths that offer an alternative to the corporate food regime. Transition paths, thus defined, have no predetermined end purpose – as could be the conversion to organic farming, for instance. Instead, the agroecological transition is understood as an open-ended and continuous process (Magda et al., 2019). One that can place greater or lesser emphasis on each of the transition's dimensions: environmental, social, economic, cultural or political; but which will always seek increasing levels of sustainability in local food systems, from a holistic perspective (Méndez et al. 2017). With this multiplicity of paths it is possible to accommodate very differentiated farmers and agri-food entrepreneurs profiles in the agroecological transitions; and to build alliances with other actors on a wide range of topics (for example, at-source price reductions, specific pests, or conflicts over agricultural land use) around the political project of food systems transformation (Holt-Giménez and Shattuck, 2011; Edelman et al., 2014; Val et al., 2019; Van Dyck et al., 2018). On the basis of partial alliances and community processes of empowerment around specific problems, it is possible to activate processes of action-reflection-action that lead to holistic transformations in the models of production, commercialisation and consumption within a given territory. In this way, open-ended participatory processes enable working with the plural and complex subject of agroecological transitions.

4 Some insights into the social subject of agroecological transitions in conventional agricultural structures

I conclude that there is a wide range of contexts worldwide where 'small farmers' are disorganised and weak in political terms, and thus show a limited agency to promote agroecological transitions by themselves. Specially in highly urbanised societies (in Global North, but not only) and metropolitan settings (also in Global South), we can see the emergence of plural subjects committed to promote food systems level agroecological transitions, involving rural and urban experiences, agricultural and non-agricultural actors, and often with a strong role of researchers (among others Méndez et al., 2017; Van Dyck et al., 2018). As far as agroecology is a multidimensional concept, its development requires bringing together very diverse approaches and social profiles, as proposed by Edelman et al. (2014) for food sovereignty. Such plural social subjects comprises consumers,

NGOs and also social groups and experiences included within the so-called ‘urban agroecology’ movement (Tornaghi and Dehaene, 2019).

This plural subject is showing a strong potential to foster agroecological transitions, involving a broad range of differentiated farmers’ profiles, and specially supporting conventional (small) farmers to step on the transition process. Such plural subject should be based on the protagonism of small farmers as the ones who better know the real-world challenges for agroecological transitions and who assume the bigger risks for it. In this sense, the so-called ‘agroecological peasantry’, where existing, could be a core group within such plural subject. But, its absence, weakness or disconnection from mainstream farmers in a broad range of territorial contexts shows the need to construct (agroecological) territorialised farmers’ organisations as a first step, in order to link such plural subject to the ground (both in material and immaterial terms). On the construction process of such a plural subject, the dispositives (sets of concepts, actions and possibilities, in terms of Val et al. (2019)) and methodologies used should be adapted to the different profiles of social actors involved in it. LAeD processes carried out in Spain, beside other participatory action research approaches developed worldwide (Mier y Terán et al., 2018) have shown a good performance to construct such a plural subject, and the protagonism of small farmers at its core. The development of a favourable policy and regulatory environment, through bottom-up processes pushed by such a social subject, might be also a key (but contradictory) question in order to scale agroecological transitions to food system level (Giraldo and McCune, 2019).

In recent years, various LAeD processes have been carried out in different territorial (rural, peri-urban and metropolitan) contexts in Spain in order to promote territorialised agroecological transitions with professional, conventional farmers, some of which have led to publications (among others: Guzmán et al., 2013; López-García et al., 2018b). From these Spanish experiences, in contrast with other scientific literature from diverse contexts, I can draw some conclusions concerning elements that are useful when promoting agroecological transitions in different contexts. This section presents the main lessons obtained with regards to the construction of the subject of agroecological transitions in different contexts and situations, through PAR processes.

The first element has to do with the degree of development of the agroecological transition in a given territory (Guzmán et al., 2013). For example, in territories with greater symptoms of deagrarianization (highly extensified and grants-dependent crops, older average age of farmers, high dependency on a market they do not control) farmers prefer to talk about issues that are on the margins of agricultural production: crop robberies, degradation of irrigation infrastructure, marketing channels, etc. Professional self-esteem is low, both individually and collectively (Kindon et al., 2007). Farmers here ask for help with these peripheral problems, because they do not consider themselves capable of effecting changes to their reality on their own. The way to engage actors in participatory processes – the strong point of the

agroecological approach – is often by addressing issues that have to do with social reproduction and agricultural activity (new entrants into farming, farm transfers, farmers’ collective action and agency, etc.), in which it may be easier to work through multi-actor schemes that include local, non-agricultural actors (Menconi et al., 2017).

In contrast, with farmers’ profiles or in territories where agriculture is more profitable and capital-intensive, farmers are interested in meeting to improve their farming techniques; or to explore marketing channels at a higher price on a more conventional approach to transitions (Magda et al., 2019). In these contexts of business agriculture, people are not willing to spend much time on reflecting if it does not have a practical and immediate objective related to the profitability of agriculture (Schattmann et al., 2015). In such settings it will be more appropriate to focus on processes of farmers (on-field) participatory research, and to collaborate with specialised actors (professional organisations, research centres, R&D and innovation, etc.). In these cases it may be easier to work from a vertical approach – exclusively involving alliances within the agri-food chain – rather than a horizontal approach – involving territorial alliances between agricultural and non-agricultural actors, depending on the topics to be addressed (Schattmann, 2015; Menconi et al., 2017).

As previously stated, the fragility and weakness of the agricultural social fabric makes it necessary to work on the agroecological transitions together with other local profiles. For this reason, in parallel to the construction of the collective agricultural subject, there has been a tendency to build a network of alliances around the process, involving local social groups – mostly from outside the agricultural sector (as neighbours associations in urban or peri-urban settings), although also incorporating some agrarian institutions, such as irrigation communities, Designation of Origin regulatory councils, or research centres (Menconi et al., 2017; Van Dyck et al., 2018). In this methodological blueprint, which I have called ‘concentric circles’, the process by which local small farmers constitute a collective subject is located at the core of a broader process of social mobilization and cohesion around a shared project of sustainability for the territory. Being at the core implies protagonism, but not exclusivity (Edelman et al., 2014; Val et al., 2019).

Within this design of concentric circles, I have observed that the different local non-agricultural actors do not follow homogeneous patterns of behaviour. For example, in metropolitan contexts it has been easy to interact with researchers, neighbourhood associations and other urban actors, perhaps because they understand the potential of peri-urban agriculture to activate and mobilise the local identity in a sustainability project (Peredo and Barrera, 2018; Van Dyck et al., 2018). Similarly, actors such as school family associations or small businesses that were initially unaware of these projects, responded with openness and a very good disposition to become involved once contacted. Other institutions in the field of agriculture (cooperatives, professional organisations, Protected Designation of Origin regulatory councils, etc.), each with their own interests in the territory that often diverge from those of the agroecological transitions, have

not been easily attracted. Lastly, organisations and social movements more closely linked to agroecology and food sovereignty have not always shared the objective of working with the conventional farming sector, nor the methodological approach of giving this sector the protagonism in the transition, which could be related to the differentiation between radical and progressist actors proposed by Holt Giménez and Shattuck (2011).

The implications of defining a plural, heterogeneous and complex subject of the (territorialised) agroecological transitions poses challenges that must be faced through empirical work. Much remains to be done in different territorial contexts and with different types of agricultural structures, both in the Global North and South, and especially in broad territorial contexts where the complexity of transforming local food systems can be faced. Nevertheless, the preliminary results here presented lay out very promising lines of work, from the point of view of transdisciplinary research in agroecology.

Acknowledgements

I would like to thank the contribution made to the discussion of some of the ideas set forth in this text by my colleagues in the project “Mans a l’Horta, dinamització de l’activitat agrària al municipi de València”: Lluís Benlloch, Vanessa Calabuig, Piero Carucci, Nacho Díaz, Alba Herrero, Mireia López, Josep Manuel Pérez and Lola Vicente. I would also like to thank the three anonymous reviewers for their comments on the first draft of the paper, which have improved it sensitively. This paper has been written thanks to the support of the Fund for the Third Sector Grants from the Spanish Ministry of Ecological Transition (2020).

REFERENCES

- Bernstein H (2010) *The class dynamics of agrarian change*. Halifax: Fernwood Publishing, 142 p
- Cuéllar-Padilla M, Calle-Collado A (2011) Can we find solutions with people? Participatory action research with small organic producers in Andalusia. *J Rural Stud* 27(4):372–383, doi:10.1016/j.jrurstud.2011.08.004
- Darnhofer I (2014) Contributing to a transition to sustainability of agri-food systems: Potentials and pitfalls for organic farming. In: Bellon S, Pervern S (eds) *Organic farming, prototype for sustainable agricultures*. Dordrecht: Springer, 439–452, doi:10.1007/978-94-007-7927-3_24
- Edelman M, Weis T, Baviskar A, Borrás SM Jr, Holt-Giménez E, Kandiotti D, Wolford W (2014) Introduction: critical perspectives on food sovereignty. *J Peasant Stud* 41(6): 911–931, doi:10.1080/03066150.2014.963568
- Fals-Borda O (1991) *Acción y conocimiento: cómo romper el monopolio con investigación – acción participativa*. Santa Fé de Bogotá: CINEP, 232 p
- Ferguson BG, Aldasoro Maya M, Giraldo O, Mier y Terán Giménez Cacho M, Morales H, Rosset P (2019) Special issue editorial: What do we mean by agroecological scaling? *Agroecol Sustain Food* 43(7–8):722–723, doi:10.1080/21683565.2019.1630908
- Freire P (2012) *Pedagogía del oprimido*. Madrid: Siglo XXI, 192 p
- Giraldo OF, McCune N (2019) Can the state take agroecology to scale? Public policy experiences in agroecological territorialization from Latin America. *Agroecol Sustain Food* 43(7–8):785–809, doi:10.1080/21683565.2019.1585402
- Giraldo OF, Rosset PM (2017) Agroecology as a territory in dispute: between institutionality and social movements. *J Peasant Stud* 45(3):545–564, doi:10.1080/03066150.2017.1353496
- Gliessman S (2016) Transforming food systems with agroecology. *Agroecol Sustain Food* 40(3):187–189, doi:10.1080/21683565.2015.1130765
- González de Molina M, Petersen PF, Garrido Peña F, Caporal FR (2019) *Political agroecology: Advancing the transition to sustainable food systems*. Boca Raton: CRC Press, 201 p
- Graeb BE, Chappell MJ, Wittman H, Ledermann S, Bezner Kerr R, Gemmill-Herren B (2016) The state of family farms in the world. *World Dev* 87:1–5, doi:10.1016/j.worlddev.2015.05.012
- Guzmán GI, López-García D, Román-Bermejo L, Alonso AM (2013) Participatory action research in agroecology: Building local organic food networks in Spain. *Agroecol Sustain Food* 37(1):127–146, doi:10.1080/10440046.2012.718997
- Holt-Giménez E, Shattuck A (2011) Food crises, food regimes and food movements: rumblings of reform or tides of transformation? *J Peasant Stud* 38(1):109–144, doi:10.1080/03066150.2010.538578
- Ilbery B, Maye D (2005) Alternative (shorter) food supply chains and specialist livestock products in the Scottish-English borders. *Environ Plan A* 37(5):823–844, doi:10.1068/2Fa3717
- Kindon S, Pain R, Kesby M (2007) Participatory action research approaches and methods: origins, approaches and methods. In: Kindon S, Pain R, Kesby M (eds) *Participatory action research approaches and methods*. Chapter 2, London: Routledge, 9–18, doi:10.4324/9780203933671
- Lamine C, Magda D, Amiot M-J (2019) Crossing sociological, ecological and nutritional perspectives on agrifood systems transitions: towards a transdisciplinary territorial approach. *Sustainability* 11(5):1–18, doi:10.3390/su11051284
- Levidow L, Pimbert M, Vanloqueren G (2014) Agroecological research: conforming – or transforming the dominant agro-food regime? *Agroecol Sustain Food* 38(10):1127–1155, doi:10.1080/21683565.2014.951459
- López-García D, Calvet-Mir L, Di Masso M, Espluga J (2018b) Multi-actor networks and innovation niches: university training for local Agroecological Dynamization. *Agric Hum Values* 36: 567–579, doi:10.1007/s10460-018-9863-7
- López-García D, Pontijas B, González de Molina M, Delgado M, Guzmán-Casado GI, Infante-Amate J (2018a) Saltando de escala...¿ hacia dónde? El papel de los actores convencionales en los sistemas alimentarios alternativos. *Ager* 25:99–127, doi:10.4422/ager.2018.14
- Magda D, Girard N, Angeon V, Cholez C, Raulet-Croset N, Sabbadin R, Salliou N, Barnaud C, Monteil C, Peyraud N (2019) A plurality of viewpoints regarding the uncertainties of the agroecological transition. In: Bergez JE, Audouin E, Therond O (eds) *Agroecological transitions: From theory to practice in local participatory design*. Cham: Springer, 99–120, doi:10.1007/978-3-030-01953-2_6
- McMichael P (2016) *Regímenes alimentarios y cuestiones agrarias*. Barcelona: Icaria, 260 p
- Menconi ME, Grohmann D, Mancinelli C (2017) European farmers and participatory rural appraisal: A systematic literature review on experiences to optimize rural development. *Land Use Pol* 60:1–11, doi:10.1016/j.landusepol.2016.10.007
- Méndez VE, Caswell M, Gliessman SR, Cohen R (2017) Integrating agroecology and participatory action research (PAR): Lessons from Central America. *Sustainability* 9(5):705, doi:10.3390/su9050705
- Mier y Terán Giménez Cacho M, Giraldo OF, Aldasoro M, Morales H, Ferguson BG, Rosset P, Khadse A, Campos C (2018) Bringing agroecology to scale: key drivers and emblematic cases. *Agroecol Sustain Food* 42(6): 637–665, doi:10.1080/21683565.2018.1443313
- Peredo y Parada S, Barrera Salas C (2018). Democratizando el consumo ecológico: Elementos para la acción y aprendizaje colectivo en procesos de investigación acción participativa. *Agroecología* 13(1):57–69
- Rivera-Ferre MG (2018) The resignification process of agroecology: Competing narratives from governments, civil society and intergovernmental organizations. *Agroecol Sustain Food* 42(6):666–685, doi:10.1080/21683565.2018.1437498
- Schattman R, Méndez VE, Westdijk K, Caswell M, Conner D, Koliba C, Zia A, Hurley S, Adair C, Berlin L, Darby H (2015) Vermont agricultural resilience in a changing climate: A transdisciplinary and participatory action research (PAR) process. In: Benkeblia N (ed) *Agroecology, ecosystems and sustainability*. Boca Raton, FL: CRC Press, 326–343

- Simón-Rojo M (2019) Agroecology to fight food poverty in Madrid's deprived neighbourhoods. *Urban Des Int* 24(2):94–107, doi:10.1057/s41289-019-00088-4
- Tornaghi C, Dehaene M (2019) The prefigurative power of urban political agroecology: rethinking the urbanisms of agroecological transitions for food system transformation. *Agroecol Sustain Food* 44(5):594–610, doi:10.1080/21683565.2019.1680593
- Val V, Rosset PM, Zamora Lomeli C, Giraldo OF, Rocheleau D (2019) Agroecology and La Via Campesina: I. The symbolic and material construction of agroecology through the dispositive of "peasant-to-peasant" processes. *Agroecol Sustain Food* 43(7–8):872–894, doi:10.1080/21683565.2019.1600099
- van der Ploeg JD (2010) *Nuevos campesinos. Campesinos e imperios alimentarios*. Barcelona: Icaria, 430 p. Retrieved from <<https://edepot.wur.nl/424202>> [at 13 Nov 2020]
- Van Dyck B, Vankeerberghen A, Massart E, Maughan N, Visser M (2018) Institutionalization of participatory food system research: Encouraging reflexivity and collective relational learning. *Agroecologia* 13(1):21–32

OPEN ACCESS

This article is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>)

© The author(s) 2020