



UNISECO

UNDERSTANDING & IMPROVING THE SUSTAINABILITY OF AGRO-ECOLOGICAL FARMING SYSTEMS IN THE EU

Deliverable Report D5.1 **Inventory of Market and Policy Incentives** **Supporting AEFS** **Annex 1 – Annotated Bibliography**

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DATE OF APPROVAL:	18.01.2019
APPROVED BY PROJECT COORDINATOR:	Gerald Schwarz (Thünen Institute)
DATE OF APPROVAL:	18.11.2019
CALL H2020-SFS-2017-2	Sustainable Food Security-Resilient and Resource-Efficient Value Chains
WORK PROGRAMME Topic SFS-29-2017	Socio-eco-economics - socio-economics in ecological approaches
PROJECT WEB SITE:	www.uniseco-project.eu

This document was produced under the terms and conditions of Grant Agreement No. 773901 for the European Commission. It does not necessarily reflect the view of the European Union and in no way anticipates the Commission's future policy in this area.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 773901.

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ANNEX 1 - Annotated Bibliography

The annotated bibliography presented in this annex was compiled to identify the most relevant literature dealing with the market incentives and policy instruments supporting Agro-ecological Farming Systems (AEFS) in both the EU and non-EU contexts.

To date very few scientific contributions focus on the scope and scale of the policies and market instruments currently in place and in their role in supporting agro-ecological systems. On the opposite, the majority of articles provide general recommendations on the type of market and policy incentives needed to further support such transition at different scales.

In this annotated bibliography we tried to include all the most recent (last 10 years) and relevant contributions that discuss and describe the recent policy regulations as well as the most common market tools (e.g. organic and other green certifications, etc.) that are favouring (or may favour) the transition towards AEFS.

The annotated bibliography is structured as a list of articles and reports (with abstracts) in alphabetic order. The articles and reports have been categorised according two different criteria: (i) type of source and (ii) type of market and policy incentives described in the source.

Type of sources:

- *Article*: Academic articles, refereed journal articles, conference proceeding;
- *Report*: Technical reports, position papers and other non-scientific publications.

Type of market and policy incentives:

- *EU Policy*: CAP, EU directive, EU regulation, EU regulation;
- *National/regional policy*: organic strategy, organic regulation, policy for agro-ecology;
- *National/regional market incentives*: labelling, market support for organic food;
- *Mix public/private incentives*: bio-districts, bio-regions, organic food valleys;
- *Local incentives*: local market-incentives, short supply chain, grass-roots collective action
- *Extra-EU national incentives*: extra-EU national policies and regulations;
- *Extra-EU local incentives*: extra-EU local market-incentives, NGOs initiatives, grass-roots collective action



Cuoco, E., & Basile, S. (2014). Bio-districts to boost organic production. Practitioners' Track, IFOAM Organic World Congress 2014, 'Building Organic Bridges', 13-15 Oct., Istanbul, Turkey

Article - Mix public/private incentives

Abstract A bio-district is an area where farmers, citizens, tourist operators, associations and public authorities enter into an agreement for a sustainable management of local resources, based on organic farming. The first bio-district was launched in Italy in 2009. After 4 years, the bio-district now includes 30 municipalities, 400 SMEs, 20 restaurants and 10 tourist establishments and it constitutes a permanent workshop of culturally significant ideas and initiatives.

FAO/INRA (2018). Constructing markets for agro-ecology – An analysis of diverse options for marketing products from agroecology, by Loconto, A., Jimenez, A. & Vandecandelaere, E. Rome, Italy.

Report – Extra-EU Local incentives

No abstract

FAO (2018). Catalysing dialogue and cooperation to scale up Agroecology: Outcomes of the FAO regional Seminars on agroecology. FAO <http://www.fao.org/3/I8992EN/I8992EN.pdf>

Report – Extra EU Local incentives

Abstract Agroecology has been gaining interest in recent years among governments, research and civil society organisations worldwide and many actors present it as a strategic pathway to transition to sustainable food and agriculture systems for achieving food security and nutrition. Following the 1st International Symposium on Agroecology for Food Security and Nutrition, held in Rome in 2014, FAO organized a series of regional multistakeholder seminars in Latin America and the Caribbean, sub-Saharan Africa, Asia and the Pacific, China, Europe and Central Asia, and the Near East and North Africa from 2015 to 2017. These seminars provided many opportunities for exchange and debate and revealed that while the scientific framework for agroecology dates back to the last century, it is a living concept that can be interpreted differently by different actors. The participants' testimonies showed not only the wealth of existing initiatives but also their high expectations about supporting agroecological transitions on a larger scale. This report presents a summary the main lessons learned from the regional meetings and drawing from this, proposes a framework for action to support the development of agroecology in the coming years. This is a direct contribution to the 2nd International Symposium on Agroecology: Scaling up Agroecology to achieve the SDGs.

Feret, S., & Moore, O. (2015). Transitioning towards agroecology. Using the CAP to build new Food systems.

Report - Mix public/private incentives

No abstract

Ferreira de Moura, I., Miranda, C., & Linhares de Asis, R. (2017). Agroecology in the Brazilian Government Agenda: Developments between 2011 and 2014. *Cuadernos de Desarrollo Rural*, 14(79), 1-15. <https://doi.org/10.11144/Javeriana.cdr14-79.abga>

Article – Extra-EU national incentives

Abstract Since 2003, in Brazil, the agroecological perspective has been present in punctual public policies of the federal government. In 2012, with a convergent action of the agroecological movement and the organic production, the National Policy for Agroecology and Organic Production was created. This article presents a reconstruction of the process, while highlighting involved actors, as well as their demands and interests, ideas, and main forums. Despite its limitations and conflicts, the Pnapo is a benchmark and a political achievement, having insured the agroecological agenda in



the public policies inter-related to rural development, food sovereignty, and the human right to adequate food.

Friends of the Earth International (2018). Agroecology: innovating for sustainable agriculture and food systems friends of the earth international. Who Benefits? series 2018
<https://www.foei.org/resources/publications/agroecology-innovating-for-sustainable-food-systems-and-agriculture>

Report – Extra-EU National incentives

No Abstract

Gonzalez, R. A., Thomas, J., & Chang, M. (2018). Translating Agroecology into Policy: The Case of France and the United Kingdom. *Sustainability*, 10(8), 1-19.

Article - National/regional policy

Abstract The popularity of agroecology has grown over the last few years as an alternative paradigm for food systems. This public attention has meant agroecology is increasingly becoming institutionalised and integrated into food policy frameworks. While there is a significant body of literature discussing the origins and worldviews intrinsic to agroecology, hardly any academic publications focusing on analysing policies claiming to have an agroecological focus exist. This first policy study of its kind contributes to the scarce agroecological policy literature by interrogating what we argue is a ‘translation’ process, which starts with the vision of agroecology and analyses how the concept changes once it has been operationalised into a policy document or law. Evidence from two European agricultural policy contexts, namely France and the United Kingdom, is presented. The methodology followed focused on the analysis of the context, problem construction, conceptualisation of agroecology, operational principles, and policy instruments included in the policy documents. Three main themes emerged from the case studies: differences in framing agroecology in the public policy arena; common dependencies to existing configurations influencing translations of agroecology in public policies; and the need for democratic discussion on the hybridisation of agroecology itself, as well as on implied, but often veiled, political choices. This paper concludes that a selective and relational hybridisation of agroecology is emerging during its ‘translation’ into public policies.

González de Molina, M., & Guzmán, G. I. (2017). On the Andalusian origins of agroecology in Spain and its contribution to shaping agroecological thought. *Agroecology and Sustainable Food Systems*, 41(3-4), 256-275.

Article - National/regional policy

Abstract Agroecology is a transdisciplinary approach focused initially on agroecosystems and then on broader agro-food systems, which responds to the growing problems arising from an increasingly globalized and industrialized agro-food system. Given that these problems are not homogeneously distributed worldwide, the emergence of agroecology could not be homogenous either. In fact, it is linked to regions, such as Latin America, which have suffered early and serious socio-environmental problems caused by industrialized agriculture. This explains why agroecology in Europe emerged first in Andalusia where, owing to a series of circumstances, there was a certain similarity with social processes unraveling in Latin America. The first part of the paper provides an account of the emergence of agroecology in Andalusia (and Spain), offering explanations about the context that made it possible and the actors involved. It also justifies the strong social and political content that agroecology had in Andalusia from the very beginning. This strong sociopolitical orientation made a very significant contribution to agroecological thought, becoming one of the fundamental pillars of its very definition as a scientific approach. The second section analyses the circumstances that facilitated the realization of planned government action and sets out the consequences of its implementation. The final section draws certain conclusions about the specificity of agroecology in



Andalusia and its contribution to the development of agroecological theory and practice on a global scale.

Henderson, C. (2015). *Scaling up agroecology through market systems: Using technology justice in agriculture to leave no one behind*. Practical Action Publishing.

Report - Local incentives

Abstract To eradicate extreme poverty means focusing on the 500 million smallholders so they can reliably generate more food and income from their agricultural activities. This paper uses the three pillars of Technology Justice (access, local innovation, and sustainable use of technologies) to assess the range of agricultural development pathways available. Agroecology emerges as the strongest pathway for *leaving no one behind* and meeting the triple challenge of productivity, sustainability and poverty eradication, as outlined in the Sustainable Development Goals. This policy brief presents existing evidence and research in agroecology alongside case studies of successful initiatives with scalable potential, particularly where market systems are at the core of development practices. Considering the barriers to scaling up agroecology, the paper recommends that development actors work together to identify incentives to enable systemic change, through facilitating market systems and private-sector engagement in agroecological production and value chains.

Herren, H. R., Hilbeck, A., Hoffmann, U., Home, R., Levidow, L., Müller, A., ... & Pimbert, M. (2015). *Feeding the People: Agroecology for Nourishing the World and Transforming the Agri-Food System*.

Report – Extra-EU local incentives

No Abstract

IPES-Food (2016). *From uniformity to diversity: a paradigm shift from industrial agriculture to diversified agroecological systems*. International Panel of Experts on Sustainable Food systems. www.ipes-food.org

Report - Extra-EU national incentives

No Abstract

Isaac, M., Isakson, S., Dale, B., Levkoe, C., Hargreaves, S., Méndez, V., ... & Nelson, E. (2018). *Agroecology in Canada: Towards an Integration of Agroecological Practice, Movement, and Science*. *Sustainability*, 10(9), 3299.

Article - Extra-EU local incentives

Abstract This article surveys the current state of agroecology in Canada, giving particular attention to agroecological practices, the related social movements, and the achievements of agroecological science. In each of these realms, we find that agroecology emerges as a response to the various social and ecological problems associated with the prevailing industrial model of agricultural production that has long been promoted in the country under settler colonialism. Although the prevalence and prominence of agroecology is growing in Canada, its presence is still small and the support for its development is limited. We provide recommendations to achieve a more meaningful integration of agroecology in Canadian food policy and practice.

Laforge, J. M., & Levkoe, C. Z. (2018). *Seeding agroecology through new farmer training in Canada: knowledge, practice, and relational identities*. *Local Environment*, 23(10), 991-1007.

Article – Extra-EU local incentives

Abstract As a concept, agroecology emphasises the interweaving of scientific and traditional ecological knowledge and is evolving in conjunction with farmer-led social movements from around the world addressing the health, equity and ecological sustainability of food systems. In Canada, many new agroecological farmers come from non-farming backgrounds and are finding limited



training opportunities and support structures. While there is a growing literature on the evolution of agroecology, there is limited research on the existence and impact of training programmes on the subject-formation of new farmers. In this paper, we consider the subject-formation of new agroecological farmers through a case study of the Everdale Community Learning Centre, one of Canada's only agroecological farm schools. In particular, we explore how the knowledge, practice, and relational identities of participating graduates are informed by and build on the science, practice, and movement of agroecology. Drawing on a survey and interviews with past participants, we found that Everdale's education programme contributes to an agroecological subject-formation by promoting the co-creation of place based agricultural knowledge; teaching the complexities of agroecology practice through both experiential and theoretical training; and, building a supportive community of peers. We conclude with reflections on ways to encourage a greater diversity of new farmer entrants and opportunities to support training programme graduates in establishing successful farms. These findings provide insight into developing new agroecological farmers and supporting the growing agroecological movement in Canada.

Lamine, C., & Dawson, J. (2018). The agroecology of food systems: Reconnecting agriculture, food, and the environment. *Agroecology and Sustainable Food Systems*, 42(6), 629-636.

Article - Extra-EU national incentives

Abstract Re-localization is part of the solution but does not fully address the diversity of interdependencies within food systems. Based on the discussion in a workshop that was part of the 2015 conference on The Agroecological Imagination, we argue that an agroecological approach to food systems might provide an appropriate framework for understanding food systems transitions. We address three central questions. (1) Can agroecological practices add value to food, and what process of certification and labelling would help consumers understand the added value that certain practices provide? (2) How can agroecology introduce ecological concepts into decisions on food systems, especially at the scale of food systems rather than the scale of specific products? (3) What approaches to research and action-research are most appropriate – or remain to be developed – in order to favor such processes of reconnection between agriculture, environment and food? We conclude by arguing that an agroecological approach to food systems should favor processes which allow relational reflexivity – the capacity to take into account one's own interdependencies to others but also interdependencies between other actors.

Lampkin, N.H., Pearce, B.D., Leake, A.R., Creissen, H., Gerrard, C.L., Girling, R., Lloyd, S., Padel, S., Smith, J., Smith, L.G., Vieweger, A., Wolfe, M.S. (2015). The role of agroecology in sustainable intensification. Report for the Land Use Policy Group. Organic Research Centre, Elm Farm and Game & Wildlife Conservation Trust.

Report - National/regional policy

Abstract The study is intended to help to develop the work of the LUPG and others on sustainable intensification and follows research carried out for the LUPG by ADAS/Firbank (Elliott et al., 2013) exploring the concept of sustainable intensification. The current study is desk-based and appraises whether agroecological systems and techniques have relevance to sustainable intensification. It involves a systematic comparison of the relative performance of agroecological and conventional agricultural systems, based on a literature review and contact with experts.

Lefebvre, M., Langrell, S. R., & Gomez-y-Paloma, S. (2015). Incentives and policies for integrated pest management in Europe: a review. *Agronomy for sustainable development*, 35(1), 27-45.

Article - EU policy

Abstract Integrated pest management and organic farming are alternatives for sustainable agriculture and less pesticide use in the European Union. All professional users of pesticides in the European Union should follow the general principles of integrated pest management from 2014.



States should report to the European Commission on their national action plan for the effective application of those general principles through crop-specific guidelines. The major remaining issues are: (1) when guidelines are not already applied, what incentives would encourage European farmers to adopt those guidelines? (2) How and to what extent should public money be used to promote the adoption of guidelines? Here, we review the adoption of integrated pest management in Europe. We deliver a framework to understand the drivers of changes in farmers' pest management practices. This framework also helps to understand farmer reaction to different policy incentives.

Levkoe, C. Z., & Sheedy, A. (2017). A people-centred approach to food policy making: Lessons from Canada's People's Food Policy project. *Journal of Hunger & Environmental Nutrition*, 1-21.

Article - Extra-EU local incentives

Abstract This paper reflects on a major public engagement process that was established to develop a Pan-Canadian food policy based on the principles of food sovereignty. We present an account of the People's Food Policy (PFP) as a social and political experiment that mobilized a diversity of civil society networks and Indigenous people to establish transformative spaces and processes for (re)claiming control of the food system. We argue that the PFP process was a successful, yet imperfect model of a people-centred, counter-hegemonic policy-making process enacted through food movement networks that provided important lessons for advancing public participation in decision making and action.

Løes, A. K., Dyrmondsson, O. R., Kreismane, D., Mikkola, M., Pehme, S., Rasmussen, I. A., ... & Wiwstad, M. (2015, June). The organic sector in the Nordic–Baltic region—what is achieved, and what is challenging further growth. In the 25th NJF congress—Nordic view to sustainable rural development Riga, Latvia.

Article - National/regional policy

Abstract This paper compiles statistics for certified organic farmland and organic consumption in the eight Nordic-Baltic countries, and describes main drivers and obstacles, focussing on policy and strategies including organic research. Significant differences are found between the countries, also between countries with relatively comparable climatic and economic conditions. Explanations are discussed. Successful examples, especially Denmark and Sweden, show that organic agriculture is an option for refreshing agriculture in general, when there is a significant political will to support this farming practice.

McKay, B. (2013). A socially inclusive pathway to food security: the agroecological alternative.

Report - Extra-EU national incentives

No Abstract

Mier y Terán Giménez Cacho, M., Giraldo, O. F., Aldasoro, M., Morales, H., Ferguson, B. G., Rosset, P., ... & Campos, C. (2018). Bringing agroecology to scale: key drivers and emblematic cases. *Agroecology and Sustainable Food Systems*, 42(6), 637-665.

Article - Extra-EU local incentives

Abstract Agroecology as a transformative movement has gained momentum in many countries worldwide. In several cases, the implementation of agroecological practices has grown beyond isolated, local experiences to be employed by ever-greater numbers of families and communities over ever-larger territories and to engage more people in the processing, distribution, and consumption of agroecologically produced food. To understand the nonlinear, multidimensional processes that have enabled and impelled the bringing to scale of agroecology, we review and analyze emblematic cases that include the farmer-to-farmer movement in Central America; the national peasant agroecology movement in Cuba; the organic coffee boom in Chiapas, Mexico; the spread of Zero Budget Natural Farming in Karnataka, India; and the agroecological farmer–consumer



marketing network “Rede Ecovida,” in Brazil. On the basis of our analysis, we identify eight key drivers of the process of taking agroecology to scale: (1) recognition of a crisis that motivates the search for alternatives, (2) social organization, (3) constructivist learning processes, (4) effective agroecological practices, (5) mobilizing discourses, (6) external allies, (7) favourable markets, and (8) favorable policies. This initial analysis shows that organization and social fabric are the growth media on which agroecology advances, with the help of the other drivers. A more detailed understanding is needed on how these multiple dimensions interact with, reinforce, and generate positive feedback with each other to make agroecology’s territorial expansion possible.

Migliorini, P., & Wezel, A. (2017). Converging and diverging principles and practices of organic agriculture regulations and agroecology. A review. *Agronomy for Sustainable Development*, 37(6), 63.

Article - National/regional policy

Abstract There is ongoing debate among stakeholders about the future development of agricultural and food systems to meet the global challenges of food supply, biological and cultural diversity, climate change, and social justice. Among other options, agroecology and organic agriculture are discussed. Both have similar goals and use a systems approach; however, they are recognised and received differently by stakeholders. Here we review and compare principles and practices defined and described in EU organic agriculture regulations, International Federation of Organic Agricultural Movement (IFOAM) norms, and agroecology scientific literature. The main findings are as follows: (1) Regarding principles, EU organic regulations mainly focus on appropriate design and management of biological processes based on ecological systems, restriction of external inputs, and strict limitation of chemical inputs. IFOAM principles are very broad and more complete, and include a holistic and systemic vision of sustainability. Agroecology has a defined set of principles for the ecological management of agri-food systems, which also includes some socio-economic principles. (2) Many proposed cropping practices are similar for EU organic, IFOAM, and agroecology, e.g. soil tillage, soil fertility and fertilisation, crop and cultivar choice, crop rotation, as well as pest, disease and weed management. In contrast, the origin and quantity of products potentially used for soil fertilisation and pest, disease, and weed management are different. Additionally, some practices are only mentioned for one of the three sources. (3) In animal production, only a few proposed practices are similar for EU organic, IFOAM, and agroecology. These include integration of cropping and animal systems and breed choice. In contrast, practices for animal management, prevention methods in animal health, animal housing, animal welfare, animal nutrition, and veterinary management are defined or described differently. (4) Related to food systems, organic agriculture focusses on technical aspects, such as food processing, while in agroecology there is a prominent debate between a transformative and conformative agenda. Both agroecology and organic agriculture offer promising contributions for the future development of sustainable agricultural production and food systems, especially if their principles and practices converge to a transformative approach and that impedes the conventionalisation of agro-food systems.

Migliorini, P., Gkisakis, V., Gonzalez, V., Raigón, M., & Bàrberi, P. (2018). Agroecology in Mediterranean Europe: Genesis, state and perspectives. *Sustainability*, 10(8), 2724.

Article - EU policy

Abstract: The Mediterranean agro-food systems need to be properly managed. A promising pathway is the transition towards more sustainable food systems through agroecology, which represents the ecology of food systems. In this paper, the state-of-the-art of agroecology is described for three representative euro-Mediterranean countries: Italy, Greece, and Spain. The analysis has been partly based on results of a dedicated literature search and partly on grey literature and expert knowledge. After an overview of the history of agroecology, targeted research and education, collective action (political and social), and some agroecological practices in the three countries are presented. These



countries share a rather similar use of the term “agroecology”, but they differ regarding (i) the existence/extent of strong civil and social movements; (ii) the type of study/educational programmes, and the relative importance of different scientific disciplines and their evolution; (iii) the development of political support and legal frameworks; and (iv) the elaboration of concepts to rediscover traditional practices and apply new ones, often taken from the organic agriculture sector. Agroecology is an emerging concept for the Mediterranean agricultural sector, with huge potential due to the peculiar socio-cultural, bio-physical, and political-economic features of the region. To boost agroecology in Mediterranean Europe, better networking and engagement of different actors within a coherent institutional framework supporting the transition is strongly needed.

Miles, A., DeLonge, M. S., & Carlisle, L. (2017). Triggering a positive research and policy feedback cycle to support a transition to agroecology and sustainable food systems. *Agroecology and Sustainable Food Systems*, 41(7), 855-879.

Article - Extra-EU national incentives

Abstract An ecologically sustainable and socially equitable food system, one that restores ecosystem services, enhances human welfare, and promotes community-based economic development, is urgently needed. Applied agroecological research and the development of regional and community food systems are key means through which pressing ecological and social externalities may be mitigated. However, progress in both of these areas has been limited, particularly in the USA, with constraints in each likely holding the other back. In this article, we first review and explore how public investment in agroecology research and development has been limited in the USA. We then discuss how agricultural research funds could be shifted to better support the development of more resilient and equitable food systems. Finally, we explore a broader set of structural obstacles to food system change and identify key policies that could work jointly to strengthen a positive feedback cycle of research, policy, education and practice. Such a feedback cycle could work to accelerate a transition to ecological farming and food system norms that enhance natural resources sustainability, equity and resilience.

Moeskops, B. (2014). The European Innovation Partnership: opportunities for innovation in organic farming and agroecology.

Report - Local incentives

Abstract The European Innovation Partnership for Agricultural Productivity and Sustainability, or EIP-AGRI, is a new policy instrument for more stakeholder and demand-driven research & innovation in agriculture. It contains several elements that are supportive of organic farming and agroecological innovation. The organic sector, with its history of strong collaboration across disciplines and between researchers and producers, should take advantage of the opportunities the EIP-AGRI offers. This dossier is there to help the organic sector and the agroecological community understand the implementation of the EIP-AGRI. After a general introduction to the EIP-AGRI in the first chapter, the concepts behind the new approach to innovation are explained. The third chapter addresses the EIP-AGRI activities at EU level. An important part of the work will have to be done, however, by the rural development programmes at the national or regional levels. This is explained in the fourth chapter. Whilst each Member State will take its own approach, the EIP-AGRI is all about learning from each other. Therefore, the fifth chapter describes a number of interesting initiatives in the Member States. The dossier ends with an overview of the wide range of innovations with which the organic sector can contribute to the EIP-AGRI.

Moraine, M.; Lumbroso, S.; Poux, X. A Comprehensive Outlook on the Diversity of Agroecological Initiatives in Europe. EFNCP; IDDRI (2016) Available online: http://www.efnkp.org/download/Plaqueette_AE-initiatives_VF_June_light.pdf

Report - Local incentives



No Abstract

Mosquera-Losada, M. R., Santiago Freijanes, J. J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., ... & Pantera, A. (2017). Deliverable 8.24: how can policy support the appropriate development and uptake of agroforestry in Europe? September 2017. 21 pp. URL: <https://agforward.eu/index.php/en/how-can-policy-support-the-uptake-of-agroforestry-in-europe.html>

Report – EU policies

No Abstract

Mottershead, D. and Maréchal A. (2017), Promotion of agroecological approaches: Lessons from other European countries, a report for the Land Use Policy Group

Report - National/regional policy

Abstract This report reviews how agroecology has been promoted at European level. It presents two case studies on policies and programmes supporting agroecology, in France and Germany, and compares their findings with the situation in the UK. For the purposes of this report, 'agroecology' is defined as a set of agricultural practices and systems which aim to enhance natural processes and can include (but is not limited to) organic farming, integrated farm management (IFM) and agroforestry. Agroecology as a whole has recently been the subject of high level political attention within and outside the EU and increasing interest from farming and environmental stakeholders.

Moudrý, J., Bernas, J., Konvalina, P., Ujj, A., Manolov, I., Stoeva, A., ... & Bucur, D. (2018). Agroecology Development in Eastern Europe—Cases in Czech Republic, Bulgaria, Hungary, Poland, Romania, and Slovakia. *Sustainability (2071-1050)*, 10(5).

Article - National/regional policy

Abstract: Agroecology is a discipline of science that is based on several disciplines, primarily ecology and agronomy. Although the first mention of agroecology was more than 100 years ago, it has recently been more intensely developed throughout Eastern European countries, beginning in the 1990s. Basically, such interest developed due to the intensification of agriculture in the second half of the 20th century, which was based on the premise of agricultural research, and related specifically to production. Agroecology is also strongly associated with sustainable agricultural activities, especially organic farming, which began to develop in Eastern European countries around 1990. Due to the unique environment of Eastern European countries, and a combination of several disciplines within them as well as other factors, agroecology in these differing countries can be perceived as somewhat different from one another. This overview focuses on the current state of agroecology in the Czech Republic, Poland, Hungary, Bulgaria, Romania, and Slovakia

Nicholls, C. I., & Altieri, M. A. (2018). Pathways for the amplification of agroecology. *Agroecology and Sustainable Food Systems*, 1-24.

Article - Local incentives

Abstract A transition to an agriculture based on agroecological principles would provide rural families with significant socioeconomic and environmental benefits. If agroecology has such great potential to feeding the world, why it is not adopted more widely by farmers? Most research analyzing factors needed for scaling up agroecology focuses on the social and policy dimensions. Herein we argue that a key challenge for the amplification of agroecology lies in the translation of agroecological principles into practical strategies for soil, water, and biodiversity management to enhance production and resilience. We use old and recent case studies to understand how amplification of agroecology has happened, both in numbers of farmers and at a larger geographical scale. We focus on two main strategies that have proven effective in the past: (a) the revival of traditional agricultural systems which offer promising models of sustainability and resilience and (b) the creation of "agroecological



lighthouses” from which principles radiate out to local communities, helping them to build the basis of an agricultural strategy that promotes efficiency, diversity, synergy, and resiliency. Such agroecological strategies must be complemented by policies and solidarity market arrangements to provide economic viability to the amplification of agroecology.

OEP (2017) The various approaches of agroecology in the different countries. Synthesis of the national reports Austria – France – Italy – Lithuania – Slovenia. Erasmus+ Euro-EducATES project. Osservatorio Europeo del Paesaggio <http://www.euroeducates.eu/medias/files/oep-o1-synthesis-of-national-reports-en-17-03-22.pdf>

Report - Mix public/private incentives

No Abstract

Padel, S., Rubinstein, O., Woolford, A., Egan, J., Leake, A., Levidow, L., Pearce, B., Lampkin, N. (2017). Transitions to Agroecological Systems: Farmers’ Experience. A Report for the Landuse Policy Group. Organic Research Centre and Game & Wildlife Conservation Trust. Newbury and Fordingbridge.

Report - National/regional policy

Abstract - The term agroecology is used mainly to describe an approach “emphasising ecological principles and practices in the design and management of agroecosystems, one that integrates the long-term protection of natural resources as an element of food, fuel and fibre production” (Lampkin et al., 2015, P9). Agroecological approaches in farming can make a major contribution to the sustainable intensification of agriculture in the UK (APPG Agroecology), but in the policy context of the UK, there is no specific framework for ‘agroecology’, although some practices (for example organic farming) are supported under the Rural Development Programmes. We undertook a social science study aiming to explore how farmers make and experience their own personal transition from conventional agriculture to farming using agroecological practices and to draw some conclusions on how such transitions can be supported.

Pancino, B., Franco, S., & Marino, D. (2008). “Organic District”: identification methodology and agricultural policy objectives. In 2008 International Congress, August (pp. 26-29).

Article - Mix public/private incentives

Abstract - Italy, unlike other countries, has included the territorial dimension in the recent interventions and regulations of organic agriculture, introducing explicitly the concept of “organic district”. It is defined as a local productive system with a high agricultural vocation where organic production and processing practices are predominant. The main object of this new subject is to promote the diffusion of organic agriculture focusing on the productive and environmental territorial characteristic. In this poster, after a general definition of the organic districts, as they are introduced in the Italian regulations, a method for their identification in a region is proposed. In the final part, some considerations about the role of the organic district within the general framework of agro-environmental policies are developed.

Parmentier, S. (2014). Scaling-up agroecological approaches: what, why and how. Oxfam-Solidarity, Brussels, 472-80.

Report – Extra-EU National incentives

No Abstract

Sanderson Bellamy, A., & Ioris, A. A. (2017). Addressing the knowledge gaps in agroecology and identifying guiding principles for transforming conventional agri-food systems. *Sustainability*, 9(3), 330.

Article – Extra-EU national incentives



Abstract: Today's society faces many challenges when it comes to food production: producing food sustainably, producing enough of it, distributing food, consuming enough calories, consuming too many calories, consuming culturally-appropriate foods, and reducing the amount of food wasted. The distribution of power within the current mainstream agri-food system is dominated by multinational agri-businesses that control the flow of goods and wealth through the system. This hegemony has implemented a regime whose structures reinforce its control. A growing response to the current agri-food regime is the rise of agroecology, in both developed and developing country contexts. This is not a new phenomenon, but it has evolved over time from its Latin American origins. However, agroecology is not a monolithic block and represents many different perceptions of what it means to advance agroecology and ways in which it can help today's society tackle the crisis of the agri-food system. This paper addresses these sometimes discordant viewpoints, as well as the gaps in our knowledge regarding agroecology in an effort to lay out some guiding principles for how we can move forward in transforming the current agri-food system to achieve sustainability and a more equitable distribution of power and resources.

Silici, L. (2014). *Agroecology-what it is and what it has to offer*. Issue Paper 14629IIED. London: International Institute for Environment and Development.

Report – Extra-EU National incentives

Abstract Agroecological farming is coming of age. Once the exclusive domain of food sovereignty and ecology movements, it has begun to be promoted enthusiastically in both developed and developing countries by non-government organisations, international development organisations and others seeking more sustainable food production and consumption systems. Though difficult to quantify, a growing body of anecdotal evidence and small-scale studies highlights the environmental and social benefits that these practices can bring. For example, a review of 40 initiatives employing different agroecological practices showed an average crop yield increase of 113%, in addition to environmental benefits such as carbon sequestration, reduction in pesticide use and soil restoration. Yet despite the fact that agroecological practices can bring resilience and broad-based productivity to rural communities and provide important ecosystem services across the landscape, they are still not being widely promoted in agricultural policies or by agricultural research organisations in developed nor developing countries, nor scaled-up at a significant level. This paper asks why, tracing the multiple interpretations of agroecology: what it means to different people and how it is used. It lists the benefits and challenges of agroecological practices and how they compare with input-intensive, large-scale farming. Finally, it asks what more needs to be done to mainstream agroecology more widely in agricultural policies and practices?

Stassart, P. M., Crivits, M., Hermesse, J., Tessier, L., Van Damme, J., & Dessein, J. (2018). *The Generative Potential of Tensions within Belgian Agroecology*. *Sustainability*, 10(2094).

Article - National/regional policy

Abstract Food crises and ecologization have given rise to a Belgian dynamic that does not behave according to the conventional tripod of agroecology: practitioners, social movement, and scientists. Instead of simply recounting the history of Belgian agroecology, the authors trace the history and dynamics in Belgium), a journey along six strands that weave themselves into a Belgian tapestry: Genetically modified crop commandos, a scientific paradigm shift, hybrid expertise opening the Northern route that intersects with a Southern political route, an original non-institutional dynamic in the French-speaking part of Belgium and an institutional initiative that led to a rift in Flanders. In the following section, we identify, emerging from those six strands, four tensions that create a space of innovations, namely, politically differentiated discourses, land access, fair price, and epistemic tensions. We discuss then the generative potential of the 4 tensions and describe the potential of reconfigurations generated by boundaries organizations, food justice and transdisciplinarity. We



conclude that the concept of agroecology continues to have transformative potential in Belgium today. However, no one can predict the course of such a largely non-institutional dynamic.

Stotten, R., Bui, S., Pugliese, P., Schermer, M., & Lamine, C. (2017). Organic Values-Based Supply Chains as a Tool for Territorial Development: A Comparative Analysis of Three European Organic Regions. *International Journal of Sociology of Agriculture & Food*, 24(1).

Article - Mix public/private incentives

Abstract. Recently established organic regions aim to be model regions of sustainability. In the frame of this article we understand organic regions as territories that aim at the sustainable management of local resources, based on the principles of organic farming and agroecology. The contribution focuses especially on the role and configurations of values-based supply chains for the territorial development of such organic regions. Three different case studies, in Italy, France and Austria, are investigated. Principles of organic farming, according to the International Federation of Organic Agriculture Movement and the concept of neo-endogenous development by Christopher Ray, serve as framework for analyses. Finally, we include values-based supply chains into the model of neo-endogenous development for two reasons: first to link values on a territorial level, and second as a tool to permanently apply those values within a region.

Thrupp, L. A., Colozza, D., & Choptiany, J. (2015). tHe influence of food SySteMS on tHe AdoPtion of AgroecologicAl PrActiceS. *Agroecology for food security and nutrition*, 255.

Report – Extra-EU local incentives

Abstract Farmers' decisions about the practices they use are inevitably affected by the social, political and economic conditions that surround them, as well as the biophysical or environmental context. Increasing the adoption of agroecological practices to produce nutritious food requires efforts to address critical political-economic and market factors in food systems, which influence farmers' decisions and actions, but tend to be overlooked. This chapter will identify and explore several key factors in food systems that hinder or limit the use of agroecological approaches to meet food security needs, as well as contrasting elements that can support and expand the adoption of agroecology. The influential food system factors that are considered here include market conditions (such as the roles of food retailers, buyers and brokers in shaping food demand), farm input suppliers and related food policies. Relationships between peers and organizations in food systems are also briefly discussed. The concentration and globalization of commodity markets in food systems are significant factors that prevent farmers from adopting sustainable agroecological practices that meet their food security needs. The chapter will conclude with some comments on the policy and political-economic implications, such as the importance of addressing market power in food systems, supporting social movements that help scale up agroecological practices, as well as developing policies to support more sustainable, diverse, healthy and just food systems.

Rivera-Ferre, M. G. (2018). The resignification process of Agroecology: Competing narratives from governments, civil society and intergovernmental organizations. *Agroecology and Sustainable Food Systems*, 42(6), 666-685.

Article – Extra-EU national incentives

Abstract The definition of Agroecology as a science, as a movement, and as a practice is widely accepted worldwide. But these three approaches are in fact interrelated elements which cannot be separated one from the others. They rather articulate among them to reflect different mental models and narratives all willing to tackle the unsustainability of food systems. However, this fragmentation, together with the late development of policy proposals to promote agroecology at higher scales (political agroecology), has facilitated the emergence of different narratives in the political area, in a process of resignification of what is agroecology. Through a lexicometric analysis of policy documents from different political actors (civil society, governments, and intergovernmental



organizations) which self-claim to promote agroecology, I identify five narratives in the political arena, which put different emphasis on the different dimensions of agroecology and on different scales (from farm to the food system).

Trabelsi, M., Mandart, E., Le Grusse, P., & Bord, J. P. (2016). How to measure the agroecological performance of farming in order to assist with the transition process. *Environmental Science and Pollution Research*, 23(1), 139-156.

Article - National/regional policy

Abstract The use of plant protection products enables farmers to maximize economic performance and yields, but in return, the environment and human health can be greatly affected because of their toxicity. There are currently strong calls for farmers to reduce the use of these toxic products for the preservation of the environment and the human health, and it has become urgent to invest in more sustainable models that help reduce these risks. One possible solution is the transition toward agroecological production systems. These new systems must be beneficial economically, socially, and environmentally in terms of human health. There are many tools available, based on a range of indicators, for assessing the sustainability of agricultural systems on conventional farm holdings. These methods are little suitable to agroecological farms and do not measure the performance of agroecological transition farms. In this article, we therefore develop a model for the strategic definition, guidance, and assistance for a transition to agroecological practices, capable of assessing performance of this transition and simulating the consequences of possible changes. This model was built by coupling (i) a decision-support tool and a technic-economic simulator with (ii) a conceptual model built from the dynamics of agroecological practices. This tool is currently being tested in the framework of a *Compte d’Affectation Spéciale pour le Développement Agricole et Rural (CASDAR)* project (CASDAR: project launched in 2013 by the French Ministry of Agriculture, Food and Forestry, on the theme *Bcollective mobilisation for agroecology*,[^] <http://agriculture.gouv.fr/Appel-a-projets-CASDAR>) using data from farms, most of which are engaged in agrienvironmental process and reducing plant protection treatments since 2008.

Triantafyllidis, A. (2014). Local Governance through Organic Farming. The bio-district of the Vara Valley, a private/public partnership to assure vitality to a rural area.

Article - Mix public/private incentives

Abstract Organic farming became an issue in the Vara Valley, Liguria, NW Italy, during the end of the 90s. The conversion of local cattle farmers to organic, fostered development, identity, co-operation, labour and finally gave a well deserved nickname of the Organic valley (la Valle del Biologico) that attracted tourism to the area. The Bio-district Val di Vara is formally and legally recognised by the Regional Council of Liguria, by the regional law 66/2009. The law itself sets the criteria to reach the recognition as Bio-distretto. The share of organic farms over the total farms of the bio-district area is 22 %, and it is considerably larger both of the regional share (1,9 %) and the national one (2,8 %). The share of Utilised Agricultural Area (UAA) of organic farms is 50% of total farmland of the bio-district. One hectare out of two is certified organic. To foster rural vitality is the clear objective of the biodistrict, but also to expand its international network of relations, seeking fruitful partnerships in order to exchange experiences, and learn from good practices.

Wezel, A., Goette, J., Lagneaux, E., Passuello, G., Reisman, E., Rodier, C., & Turpin, G. (2018). Agroecology in Europe: Research, education, collective action networks, and alternative food systems. *Sustainability*, 10(4), 1214.

Article - National/regional policy

Abstract: Agroecology is considered with different focus and weight in different parts of the world as a social and political movement, as science, and as practice. Despite its multitude of definitions, agroecology has begun in Europe to develop in different regional, national and continental networks



of researchers, practitioners, advocates and movements. However, there is a lack of a comprehensive overview about these different developments and networks. Therefore, this paper attempts to document and provide a mapping of the development of European agroecology in its diverse forms. Through a literature review, interviews, active conference participation, and an extensive internet search we have collected information about the current state and development of agroecology in Europe. Agroecological research and higher education exist more in western and northern Europe, but farm schools and farmer-to-farmer training are also present in other regions. Today a large variety of topics are studied at research institutions. There is an increasing number of bottom-up agroecological initiatives and national or continental networks and movements. Important movements are around food sovereignty, access to land and seeds. Except for France, there are very few concrete policies for agroecology in Europe. Agroecology is increasingly linked to different fields of agri-food systems. This includes Community Supported Agriculture systems, but also agroecological territories, and some examples of labelling products. To amplify agroecology in Europe in the coming years, policy development will be crucial and proponents of agroecology must join forces and work hand-in-hand with the many stakeholders engaged in initiatives to develop more sustainable agriculture and food systems.

