



FOSTERING THE TRANSFORMATIVE ROLE OF AGROECOLOGICAL RESEARCH IN EUROPE

Policy Brief, AE4EU

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Forward

Agroecology is a holistic concept that embraces a diversity of interpretations, intentions and realities, depending on the country and its context, history, stakeholders and sociopolitical environment. Its aim is to restructure the food system in a way that maximises ecological processes to attain sustainability – encompassing agricultural practices, science and social movements (Gliessman 2007, Wezel et al. 2009).

Agroecology also represents a collective-action model to challenge and contrast the dominant agri-food system while creating sustainable alternatives built on place-based food interactions, food sovereignty, local knowledge and identity, and social justice (Levidow et al., 2014; Altieri and Toledo, 2011). Nevertheless, agroecology is also adopted by actors who promote conventional and agro-industrial agriculture (Holt-Gimenez and Altieri 2013) through sustainable intensification approaches geared towards increasing productivity. These two visions (*transformative vs conformative*) create a very different role for agroecology, with varied outcomes and socio-technical dynamics, including how science is conceived and articulated.

Thus, amongst the broad range of topics identified in European agroecological research (Wezel et al., 2018), some approaches are more in line with the dominant agri-food regime, while others can better integrate the participation of different actors and promote territorial development with a wider transformative role. Such analytical distinctions are necessary in order to set up appropriate agendas fostering the transformative role of agroecological research in Europe. This policy brief aims to provide research-based policy recommendations for policy makers that are responsible for the design and funding of research programmes related to sustainable agriculture, as well as agroecology. These are based on the results of the research carried out within the AE4EU project on European agroecological research projects and funding programmes.



Approach

The research was undertaken as a desk-based activity in order to collect information on research projects and funding programmes which deal with agroecology in Europe, principally at the European (within the Horizon framework which is funded by the European Union) and transnational (co-designed and co-funded by Member States with the participation of European Union) levels. Only projects where agroecology was explicitly mentioned or exemplified at least the third level (system redesign) of Gliessman’s framework for classifying food system change, were considered (Gliessman, 2015). Relevant key-informants (e.g., national funding agencies) for each European country also provided information on agroecological projects and programmes at the country level (designed and funded nationally).

Further, three different surveys were conducted and sent to:

- i) the coordinators of the identified research projects to learn more about their projects’ features and their implementation of agroecological elements;
- ii) the leaders of the identified funding research programmes to understand how agroecology is perceived by the programme designers, as well as how these programmes promote agri-food transformation through agroecology in Europe and the countries in question;
- iii) any researcher involved in agroecology in order to gain a better understanding of the potential opportunities and obstacles for agroecological research.

All the data collected was integrated into a database. The information obtained through the surveys was further analysed to draw a comprehensive picture of the state of the art of the implementation of agroecological research in Europe, as well as to identify the needs for future cross collaboration between various countries and their networks.

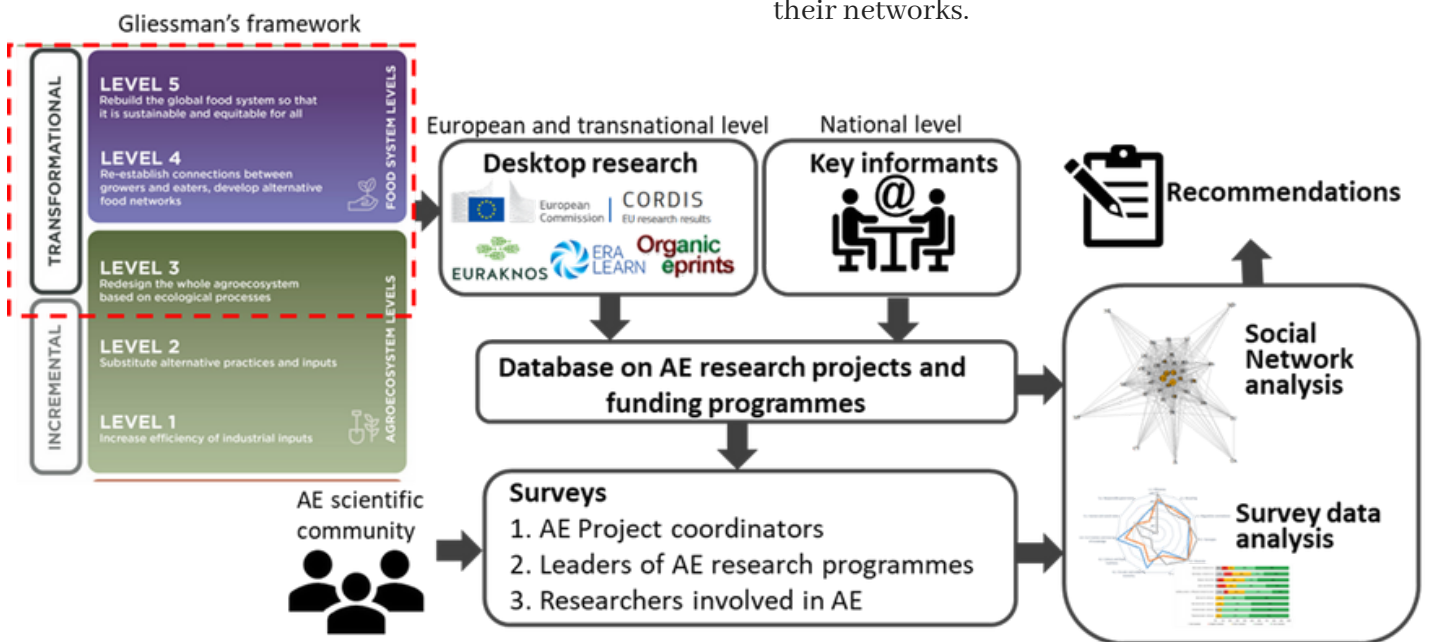


Figure 1: Methodological framework implemented. AE= Agroecology

Focal features of agroecological research in Europe

Agroecological research was found to predominantly focus on the transformation of the agri-food system, rather than on mere progress in efficiency. France, Germany, Italy, the Netherlands, Portugal, Spain, and the United Kingdom were found to be the most active countries engaged in agroecological research, as well as in transnational research collaborations. On the other hand, countries such as Malta, Moldova, and Ukraine were found to be less involved in this type of research.

The surveys showed that researchers, projects, and funding programmes all primarily focussed on improving efficiency (level 1 of Gliessman’s framework), strengthening synergies (level 3), developing local economies (level 4), and the co-creation and sharing of knowledge (level 4) to support agri-food transformation through agroecology in Europe. Issues related to resilience (level 3), and the social and governance aspects (level 5) were the most uncommon. Further, the surveys confirmed that the actors most involved in agroecological research were researchers, farmers and their associations, cooperatives, and advisors. Only a few examples were found of limited participation by upstream and downstream value chain stakeholders, such as consumers.

Transdisciplinary approaches based on the interaction with non-academic actors in the co-creation of knowledge along the different phases of the research were primarily addressed by European projects, while transnational and national projects showed lower degrees of interaction, where actors were just informed or consulted. Living labs (LLs) are also becoming increasingly relevant. LLs are defined as “user-centred, open innovation ecosystems based on

systematic user co-creation approach, integrating research and innovation processes in real life communities and settings.” LLs, used as a means to strengthen co-innovation with non-academic actors and increase the impact of the research, were present in approximately 50% of the European and the national projects, and only in about 20% of the transnational ones.

Most of the Research Infrastructures (RIs), which are “facilities, resources and services that are used by the research and innovation community to conduct research and foster innovation in their fields,” that were used and developed in the research remained available after the end of the projects (89% of cases). Nevertheless, among these cases, only 41% of them consisted of data that was collected and elaborated within the project, and then shared and made available to the scientific community for future research.

An increased project duration was considered the most important change needed in funding and research programmes by both researchers and programmes leaders. In addition, researchers strongly urged the introduction of more flexibility and less bureaucracy in budget and partnership management in order to enable a dynamic and functional interaction with non-academic partners in projects implementation.

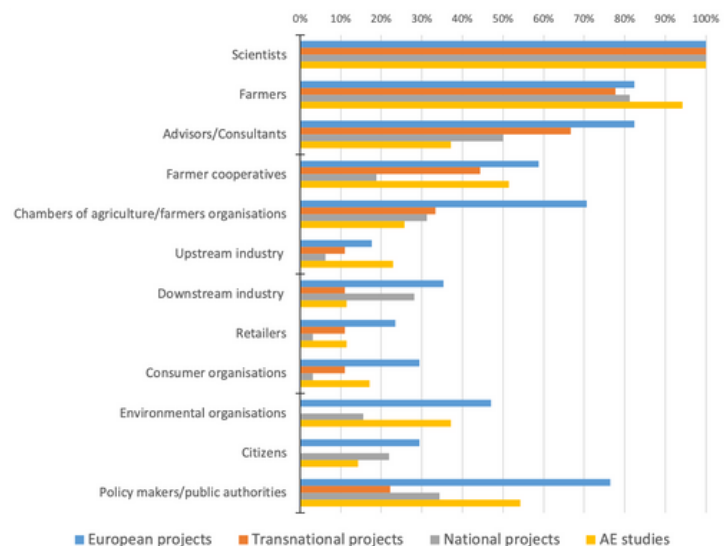


Figure 2: Actors in the Food System

Recommendations

1. Establish research programmes that consider the entire agri-food system and its actors, not only on the agronomic field and farming scales.
2. Strengthen research cooperation and networks at the European scale by lowering the barriers that hinder the connection and participation of the currently less involved countries.
3. Promote research programmes addressing, at least, level 3 (redesign) of Gliessman's framework, and especially those that go beyond this and include the social and governance aspects of level 4 and 5. On the other hand, diminish research programmes addressing only level 1 (efficiency) and 2 (substitution).
4. Design research programmes that strengthen transdisciplinary research, and explicitly demand the implementation of transdisciplinary designs and processes.
5. Enhance the involvement of a greater number of actors from the entire agri-food system, in particular those who have been less represented thus far, such as upstream and downstream value chain actors, and the non-economic actors of the food system (i.e., citizens).
6. Identify important elements and traits of agroecological Living Labs to truly guarantee the implementation of transdisciplinary approaches.
7. Promote appropriate policies regarding scientific data to guarantee data sharing and reuse within the scientific community (i.e., rewards, mandatory data sharing agreements).
8. Introduce institutional and procedural innovation to guarantee higher flexibility in the implementation of research projects, especially within budget and partnership management
9. Increase the duration of projects that are dealing with agroecology.
10. Frame research programmes in a way that does not allow small projects whose results might be too simplified, as well as very large ones that cannot be efficiently managed.

The way forward

The results and science-based recommendations provided in this policy brief aim to steer the actions of policy makers responsible for the design and funding of research programmes related to agroecology, in order to fortify its transformative role for the future of agriculture and sustainable food systems.

Indeed, today more than anytime in the past, European and transnational research programmes and their funding schemes, can encourage a transformative paradigm due to new calls and partnerships which are now being launched and designed explicitly for agroecology within the new Horizon Europe framework.

This larger, strengthened, and harmonized European perspective on agroecology can also support and drive the agroecological vision of the national funding programmes of various European countries.



Reference List

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Images

- Image 1 by Stefano Canali
- Images 2, 3, & 4 by Canva

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More information about the H2020-Agroecology for Europe project can be found at: www.ae4eu.eu, www.twitter.com/ae4eu_H2020, or www.youtube.com/channel/UCOsUVqM8tOhE28Gr2xcp2_w

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