Innovations at the service of Agriculture. What opportunities and emerging risks

Keynote Speaker Presentation



Julie Ingram is a professor of Innovation for Sustainable Agriculture at the University of Gloucestershire and a member of the Countryside and Community Research Institute. Her research is focused on Agricultural Knowledge and Innovation Systems with an interest in co-innovation approaches working with stakeholders. Such approaches can be applied to identify opportunities for innovations to manage risk in agriculture, as well as the emerging risks associated with these innovations.

By way of illustration, the article published in 2020 "What are the implications of digitalization for agricultural knowledge?" of which she is the first author, discusses the opportunities of digital transformation of knowledge in terms of new learning methods that are known to enhance the performance and resilience of global agriculture. The article presents but also characterizes the tensions issued from this transformation, especially in terms of decision making in the agricultural setting.

The same year, Julie Ingram published an article entitled "Barriers to and opportunities for the uptake of soil carbon management practices in European sustainable agricultural production" as a second author. The opportunities offered by the innovations in organic carbon management in terms of mitigating climate change are characterized. However, there are also risks that these management practices do not take into account the knowledge and experience of farmers and other land managers; hence the need for capturing and fostering farmers' experiential knowledge, and building capacity for learning through interactive models of communicative intervention.

Previous work highlights the opportunities and risk of niche level innovations in the transition towards sustainable agriculture. Opportunities will not be realized if the dominant regime does not incorporate the knowledge produced within these niches. Julie Ingram's 2018 study "Agricultural transition: Niche and regime knowledge systems' boundary dynamics" reports on processes that could strengthen and reduce the knowledge gap between niches and the conventional regime to promote transition. This study highlights the importance of developing an interconnected learning process to facilitate knowledge system of the dominant regime as well as its adaptation through the dissemination of knowledge and innovations at the niche level.

References

- Ingram, Julie and Maye, Damian (2020) *What are the implications of digitalisation for agricultural knowledge?* Frontiers in Sustainable Food Systems, 4. Art No. 66. doi:10.3389/fsufs.2020.00066
- Ingram, J. (2018). *Agricultural transition: Niche and regime knowledge systems' boundary dynamics*. Environmental innovation and societal transitions, 26, 117-135.
- Mills, Jane, Ingram, Julie, Dibari, Camilla, Merante, Paolo, Karaczun, Zbigniew, Molnar, Andras, Sánchez, Berta, Iglesias, A and Ghaley, Bhim Bahadur (2020) Barriers to and opportunities for the uptake of soil carbon management practices in European sustainable agricultural production. Agroecology and Sustainable Food Systems, 44 (9). pp. 1185-1211. doi:10.1080/21683565.2019.1680476
- Ingram, J. (2018). Agricultural transition: Niche and regime knowledge systems' boundary dynamics. Environmental Innovation and Societal Transitions, 26. pp. 117-135..doi:<u>10.1016/j.eist.2017.05.001</u>