

Agroecological transition at the digital age: levers or barriers?

Soil erosion, water pollution, loss of biodiversity, landscape standardization, contribution to climate change, and the low nutritional quality of agricultural produce, among others, have raised consumers' and citizens' awareness about the negative externalities of the current farming system. The capitalistic nature of the current farming system has slowly transformed agriculture from an activity contributing to regional sustainability to an extraction activity with little concerns for regional development. The holistic approach supporting a regionally integrated agricultural sector has evolved towards a speculative price-driven agricultural with superficial regional anchorage.

The development of multifunctional forms of agriculture has challenged this trend. Urban-influenced farms where farmers take advantage of the geographical proximity with urban markets well exemplified this trend. For instance, urban-influenced farmers have developed original farming systems with diversified sources of income, complementary on-farm service-delivering activities, and innovative relationships with consumers. In this regard, the availability of broadband and social media has greatly contributed to reshaping the relationships and coordination mechanisms linking farmers and consumers. Nowadays, the generalized availability of broadband in most rural and remote rural areas may open the door to new forms of agricultural development in rural areas.

Agroecology, which builds on the mobilization of local knowledge and ecosystem services, is another form of multifunctional agriculture, which can result in similar changes in more remote areas. In this special session, we would like to investigate the impacts of farmers' adoption of digital technologies on the sustainability of the agricultural sector. In particular, we wonder whether the availability of digital technologies provides support for an agroecological transition or whether it contributes to the greening of the current capitalistic agricultural sector. Below are some of the questions we would like to address during this session how digital technologies reshape the farming sector in regards to an agroecological transition:

- What kind of farm practices are supported by farmers' adoption of digital technologies?
- To what extent farmers' adoption of digital technologies modify the flow of agricultural knowledge between farmers or between farmers and other stakeholders of the food system?
- To what extent farmers' adoption of digital technologies modifies the coordination between farmers or between farmers and other stakeholders of the food system?
- To what extent the entrance of new farmers is modified by farmers' adoption of digital technologies?
- To what extent farm specialization can be redefined in regards to farmers' adoption of digital technologies?
- To what extent Local Agri-Food Systems can build on the development of both agroecology and digital technologies?