

Food sovereignty and Agroecology are the adequate framework to develop innovations for family farming

Working paper

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1. What we understand by *innovation*

The term *innovation* tends to have positive connotations. The western concept of time is linear; it looks towards a future that constantly brings something new with respect to the past and this novelty or “newness” is linked to the **idea of progress**.

Because it is something that is, by definition, new, ‘innovation’ is often presented as inherently positive and progressive, evading clarity or critical assessment of the **value system** embedded in it.

Moreover, it also serves as a linguistic trap that enables ideological manipulations in which the fascination with new technologies obscures any awareness or exploration of the consequences in the medium-to-long-term. Hence, it is always important to ask: **Innovation desirable for whom?** At what cost? Who will be affected? Both short- and long-term consequences should be taken into account. It is obvious at this point that a whole series of values and ideologies are involved in the meaning of ‘innovation’.

As stated earlier, in linguistics and narration, an *Objective*, or a good is pursued by a presumed *Subject*, or an agent of intention (agent of innovation). However, there is also someone or something that inspires the *Agent* to pursue this good or objective. In our case, behind the *Agent* that is pursuing innovation is an instigator, or more precisely, an *Addressor*, that may be hidden, and an *Addressee*, who cannot officially be proclaimed as such. Therefore, the question is **who is this Addressor** that is fostering this innovative action in the *agent* and who is the real *Addressee* of this promised innovation?

This reflection on the term ‘**innovation**’ is useful in understanding how the term is passed off as good in itself, and how today, **its meaning hides a large part of the capitalist system** that seeks to transform food production irreversibly from a communal, social, democratic act that is respectful of the natural cycles into a commercial business for a few.

This process is also the product of a conscious act of **decimating the traditional knowledge** of peasants, fisherfolks, and all other members of the food production community of the world, which, for more than 10,000 years, have continuously innovated their own production systems in harmony with the natural cycles. This knowledge, which has a different logic, has simply been removed: the innovation of western modernisation does not understand and include it.

Going back to the discussion about the linguistic suggestion of the term – when talking about Agricultural Innovation for Family Farming (the title of the FAO Symposium 21 to 23 November 2018), it is clear that if we really want to help family farming, then the Addressor of the innovative action must not be the capitalist agrifood production system, and the Addressee not a farmer forced to be made more competitive. As otherwise, although new technologies will be promoted, it will only reproduce the capitalist agrifood system, hiding its faults, weaknesses and dangerous negativity from society (see, for example, how positively the innovation processes brought by the destructive *Green*

Revolution in agriculture were initially perceived by society).

On the contrary, real innovation for family farming, is not subjected to a logic of reproducing the capitalist agrifood system, but must, above all, promote exchanges between different perspectives, involving agents with different outlooks and skills, in order to blend them together and explore new possibilities (food producers and academicians for instance): agroecology already models this practice of dialogue between various sources of knowledge keeping at the centre the food producer community knowledge.

2. Family farming and innovation

The distinctive element of family farming is that it **values useful**, non-commoditized, **work**, rather than the remuneration of invested capital. Regardless of cultural norms and the diversity of its forms, the family is the base unit of society and it therefore changes and evolves together with society. However, despite this diversity and evolution, the centrality and value of the qualitative nature of work remains characterised by the family dimension (in this sense, workers' cooperatives can be included in family farming).

This is why family farming is **incompatible with the agro-industrial model**, which uses capital as its core value, thereby demeaning the quality of work - and, together with this, the skills and knowledge of the people carrying out the work - in favour of a *uniform* development model that only seeks to increase capital growth. The agro-industrial model tends to grasp and reuse its own skills and knowledge, bending these to its logic and aiming to override family farming.

Do we really want “*innovation*” that **overrides family farming**? The erosion of family farming and the consequent loss of its knowledge and biodiversity make agricultural models and farmers fully dependent on those with the **power of information and data** (multinationals).

There is therefore a need to **strengthen** the knowledge system of family farming, its **ability to innovate**, as well as boosting its value, so that it does not get lost and avoid uniformity of agriculture, food and biodiversity. In this working paper, we are showing how, based on food sovereignty and agroecology, family farming is already guiding numerous innovative processes.

3. Knowledge as an economic commodity

In the near future, knowledge and the data in which it is organised, will be of the most important economic value. Family farming can strengthen itself and continue to guarantee the **right to food for all** only if it can maintain control of knowledge and data.

The concentration of knowledge and ownership of data in the hands of a few, does not bring to a harmonised development in society, but rather, creates inequality and conflict. The large agro-industrial companies - products of an *extractivist* culture, which expropriate peasant knowledge, plunder nature, favour monoculture and demean biodiversity - are promoting a gigantic process of **concentrating and controlling data** in agriculture.

The clearest example of this process can be seen in the livestock sector. *Marvellous innovations* have been applied the most to this sector of the agro-industrial model, erasing the experience of thousands of years' worth of breeders and shepherds. As a result, the livestock sector receives the largest capital investment and so, the family farming model in this sector has become almost totally absent. At the same time, we are aware that this model has triggered an extraordinary loss of animal biodiversity and caused the highest levels of pollution in the whole of the agriculture industry, with the result that it has been labelled as the largest emitter of greenhouse gases and the main cause of polluting groundwater. This assertion of the agroindustrial model has also generated an extraordinary concentration of ownership of the entire production chain from fodder production all the way to the finished product. This example illustrates that the **concentration of knowledge leads inevitably to the further loss of**

biodiversity, together with other negative effects, which we cannot allow if we want to guarantee the future of humanity.

The Sustainable Development Goals (SDGs) of the United Nations also confirm this statement. Innovations for family farming must follow clear criteria and cannot contradict the SDGs. The decade on family farming, launched by the UN General Assembly, has already demonstrated the recognition of the centrality of family farming to achieve the SDGs.

4. Agroecology: innovation for family farming

It is clear that any innovation in agriculture must be subject to a process that verifies the effectiveness and validity for family farming. This process cannot be delegated to a third party. The failure of third-party certification models proves this.

Positive innovation in agriculture can only occur, if innovation itself is the product of a process where family farming actors are totally involved, constituting a community that works not only as an *Addressor working towards the common good*, but also as an *Addressee seeking the social benefit of this good*.

This leads us to the point that an agroecological approach, which recognises peasant knowledge as a core element can bring about favourable innovation for family farming. Agroecology is therefore the framework in which real innovation for family farming can be developed. This is already taking place in all the continents and today, agroecology is at the forefront of progress in terms of social innovation and family farming production¹.

5. The challenge of digitalisation for family farming

We must immediately tackle the issue of digital agriculture, which is, undoubtedly, one of the most important tools used by agroindustry to promote itself. Farmers' knowledge has been extracted countless times in order to gain the total control of the entire production chain. The **dematerialisation of agriculture** is a work in progress and is clearly set on a collision course with the interests of family farming.

At the same time, it has to be underlined that digitalisation has undoubted potential, if subject to a few fundamental principles:

- The control of data must be in the hands of food producer's and their organisations,
- The continuous processing of data must have the full participation of the farmers and it need to be the farmers, who continue to be in charge of the production process.

Digitalisation must therefore be a tool subject to the control of the food producers and at their service, which strengthens the ability to improve their quality of life, boost the rural community livelihoods and strengthen the centrality of peasant knowledge in the production process and in the organisational and social system.

Innovation inspired by agroecology and food sovereignty is aimed at the collective common good, and can **be strengthened with the help of digitalisation**.

At the same time, we have to recognize that **no artificial brain can be ever better than a human brain**. The farmer's ability to analyse the data of his or her own farm is unique and cannot be replicated. Peasant knowledge is also made up of the senses, the feelings and smell of the earth and the air and even a sixth sense (attention to the environment, a kind of intuition), which can only be acquired after years of work and cannot be digitalised. Digitalisation improves our knowledge but cannot replace it.

¹ For a better understand of what Agroecology is, see the [Declaration of Nyeleni 2015](#)

6. Family farming and alliances with different sources of knowledge

The defence and value of our knowledge can be in no way interpreted as the full knowledge self-sufficiency of peasant culture or its isolation from other actors. We want also to anticipate that peasant knowledge should instead be cross-fertilized by other social sectors and other knowledges, without losing the centrality of its role for the rural world in economic (production and commercialisation), social (social organisation and community welfare) and environmental (biodiversity, landscape and climate change mitigation) terms.

Building alliances with other social sectors such as *open source software* engineers, or lawyers for the defence of collective peasant knowledge is a strategic objective that must be pursued in order to maintain this centrality.

7. The need for international regulation

Digitalisation forces the question of regulating data collection and control in agriculture.

The **lack of legislation** on the matter is contributing to an incredible acceleration in the concentration processes in the industrial food chain favouring the agro-industrial model that is seeking to wipe out family farming, which instead claims its autonomy based on a different logic of development and value for its own knowledge.

In this context, the United Nations, the FAO and the CFS (Committee on World Food Security) need to play a more decisive role in defining the rules that will guarantee the centrality of the role of family farming, in order to guarantee the right to food for humanity in the coming future.

8. Peasant knowledge, innovation and food sovereignty

The autonomy of peasant knowledge is **incompatible with the agroindustrial food chain** that wants to impose its own production models and requires simple implementers.

Food sovereignty, based on rights, claims its right to defending collective peasant knowledge². The **struggle for farmers' rights** over their own seeds in the last few years has shown that results in that sense are possible and the "International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)" is one of the tool we use.

Today this must be extended to all the knowledge that makes peasants unique as economic, social and environmental actors in their field. The approval of the "Declaration on the rights of peasants and other people working in rural areas" by the United Nations Human Rights Council is another tool that we have to use to defend peasant knowledge³.

The challenge of innovation leaves us with a clear choice: **who should possess the knowledge?** If we want to talk of innovation for family farming, we all know the answer.

**Article collectively written by members of Schola Campesina APS, www.scholacampesina.org

² For a better understand of what Food Sovereignty is, see the [Declaration of Nyeleni 2007](#)

³ <http://www.scholacampesina.org/28th-of-sept-the-declaration-for-the-rights-of-peasants-adopted-at-the-human-rights-council/>