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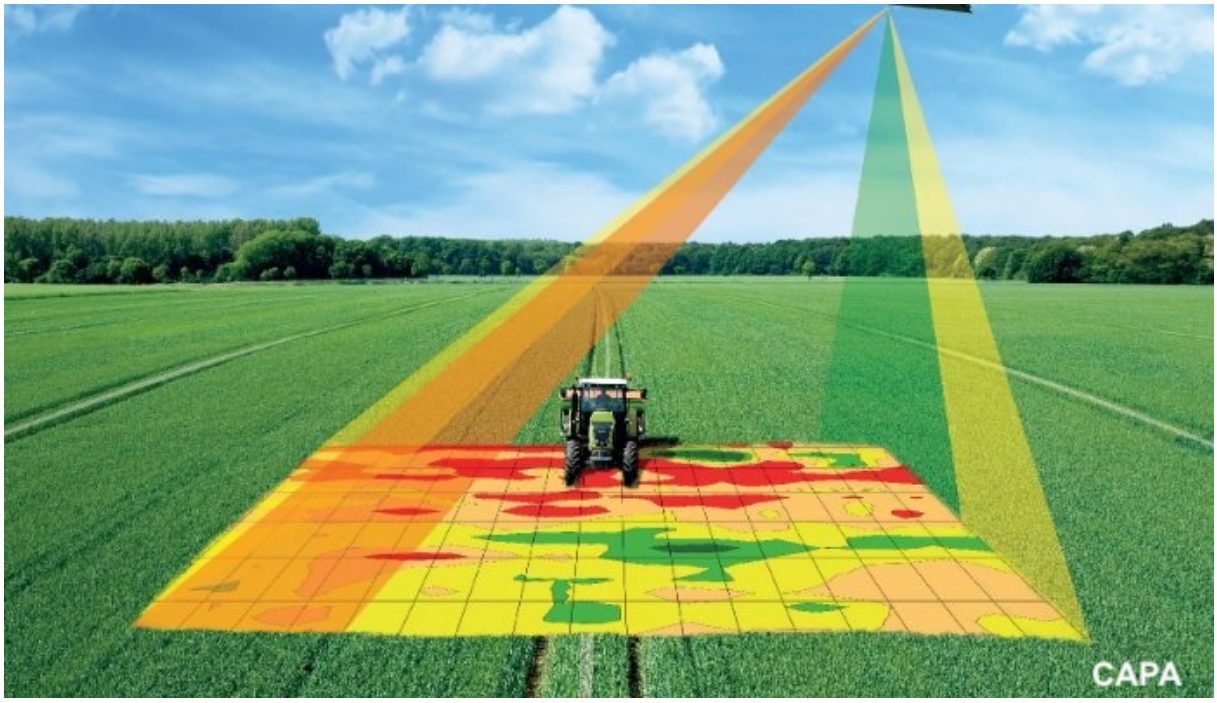
A review of two recent publications and of forthcoming studies illustrates EU's thinking on food and agriculture

In an earlier article on hungerexplained.org, we lamented on rich countries' view of the future of food and agriculture that was giving "*the lion's share to multinational corporations and the financial system, while not bothering about world hunger*" [read]. In the present note, we would like to analyse examples of how EU is thinking on food and agriculture.

For this, we analysed the content of two recent studies and the forthcoming research topics of the European Parliament's Think Tank.

The two studies were published in late 2016. One was on precision agriculture (Precision agriculture and the future of farming in Europe) and the other on human health implications of organic farming (Human health implications of organic food and organic agriculture).



Let's remind here that precision agriculture is a farming management concept using digital techniques to monitor and optimise agricultural production processes with the view to reduce as much as possible costs and use of inputs (fertilizer, pesticides, animal feed, etc.). Organic agriculture does not use any synthetic inputs such as chemical fertiliser and pesticide but emphasizes instead building up the soil with compost and animal and green manure, managing pests through the use of ecosystem services, crop rotations, crops and livestock diversification, and enhancing functional biodiversity.

The first of these studies appears to rest on a basic assumption that is not questioned at all and that is : "*Precision agriculture* is *the future of European agriculture*". Based on this assumption, the study works out various scenarios and produces a set of

recommendations on what the EU should be doing to promote precision agriculture so as to "*save costs, reduce environmental impact and produce more and better food*". For this, the study informs "*about the current state-of- the-art* [of precision agriculture]*, possible developments for the future, societal concerns and opportunities, and policy options for European policy-makers to consider*". Three main concerns are voiced by the study which deal with: (i) protection of ownership of the data generated for/by precision agriculture; (ii) the biased view of the public of what precision agriculture entails and that does not consider the diversity of this type of agriculture; and (iii) for what goals will precision agriculture be promoted and who will benefit. All these three concerns are highly valid, but one could have expected the paper first to give convincing arguments on why precision agriculture, rather than alternative approaches, really is the best approach to achieve the objectives stated in the first place (i.e. reduce costs, reduce environmental impact and produce more and better food). We believe that it is not by chance that this fundamental question was not asked. Terms of reference of the study not being available, it is not clear whether the limitation comes from an omission by the Think tank who commissioned the study, or whether it is the choice of the researchers who conducted it. In both cases, neither agrochemical and big data companies nor banks will complain about this lacuna. It is less sure that all European citizens will be happy with it. At hungerexplained.org, we certainly are not, and we feel that alternatives to precision agriculture, such as ecological agriculture or organic agriculture should also have been analysed to shed more light on what the EU should be doing to achieve a more cost effective (all real costs included), environment-friendly and healthy food and agriculture.

In the second study, on organic agriculture - it is not clear on how these two studies fit in a coherent research framework of the Think Tank -, authors rightly note that "*very few studies have been performed that directly investigate the effect of organic food on human health*". They mention some of the positive effects found in the existing studies (e.g. on childhood allergies or on obesity) but qualify them as non conclusive, and note that organic food consumers often adopt a behaviour that leads to healthier food consumption patterns associated with reduced GES emissions. In a rather odd paragraph, authors write that "o*rganic agriculture provides both a source of food with low pesticide residues and an environment in which agronomic techniques for pesticide-free plant protection are developed*" and continue by saying that "*these techniques can be adopted in conventional production, thereby aiding a transition towards integrated pest management and overall lower pesticide exposure of the population and the environment*" thus *de facto* negating the differences between organic and conventional agriculture. This does not seem to be a very rigorous attitude, to say the least. Differences are also everything but negated in terms of food content, including content in antibiotics for which "*hypothetically … a transition to organic production for the whole livestock sector would, on its own, be only part of a solution to the antibiotic resistance issue, because factors outside animal production, such as their use in humans, will be unaffected*". In other words: if a problem requires for its resolution to put in practice two solutions, don't put either of them into practice, as each separately will not solve the problem. This to us, in hungerexplained.org is a Groucho-Marxian kind of logic, but without the fun. To add two cherries to the cake:

- recommendations end in alternative options that create confusion in the mind the most benevolent policy maker, and
- authors "overlook" the environmental benefits of organic vs. conventional agriculture, a domain where there is good convincing evidence.

As a conclusion: we seem to have here cases that would need to be further investigated to apply the advice given by us to our dear readers in our article of 27 December 2016:

"W*hen you read an article or a study, always check who are the authors and who funds them before taking their conclusions for granted!*"

Any volunteer to carry out the job?

Last point: while looking at the research agenda of the European Parliament Committee on Agriculture and Rural Development, we note that in 2017, there will be (at least) three pieces of research that are very relevant to this discussion:

- The consequences of climate change policies for agriculture - Follow-up to the COP21
- Policy support for productivity vs sustainability in EU agriculture: towards viable farming and green growth
- Preserving agricultural soils in the European Union.

Let's hope that these studies will provide clear, independent, well supported and convincing recommendations to European legislators!

To know more:

- Van Woensel, L., Precision agriculture and the future of farming in Europe, Scientific Foresight Unit (STOA) Directorate for Impact Assessment and European Added Value Directorate-General for Parliamentary Research Services, European Parliament, Brussels, December 2016
- Mie, A. *et al.*, Human health implications of organic food and organic agriculture, Scientific Foresight Unit (STOA), Directorate for Impact Assessment and European Added Value Directorate-General for Parliamentary Research Services, European Parliament, Brussels, December 2016
- European Parliamentary Research Service Blog

Earlier articles on hungerexplained.org related to the topic:

- Scientific research under the influence of private interests, 2016
- How do rich countries see the future of food and agriculture?, 2016
- In the US, the industrial food and agriculture sector spent hundreds of millions on communication to influence the media, consumers and policy. What about in Europe? 2015
- Researchers show that organic agriculture generates more economic value than conventional agriculture, 2015
- Food, Environment and Health, 2014
- The large multinational corporations in charge of our agri-food system...: upstream corporations, 2014.