MINUTES FROM THE RISE FOUNDATION'S PRE-FFA WORKSHOP ON SUSTAINABLE INTENSIFICATION

Venue: The Arc Room, The Square Conference Center, Brussels
Time: March 31, 2014, 15:30-17:15

1. Chief Editor **Matthew Dempsey (MD)** of the Irish Farmers' Journal opened the workshop, introduced the issue of sustainable intensification as critical for both farmers and landowners and introduced Professor Allan Buckwell as the first keynote speaker.

2. Professor **Allan Buckwell (AB)** presented the sustainable intensification concept and our project.
   - The rising global population requires increased food production towards 2050. Most of the easily convertible land on the planet has already been converted to farmland; therefore we need to think about how to produce more food from less input.
   - Intensity/intensification is always a ratio and refers to outputs relative to inputs.
   - This study focuses exclusively on the production side of EU agriculture. While the consumption side, and particularly food wastage, has to be dealt with, this lies outside the scope of this project.

3. Professor **Winfried Blum (WB)** presented the soil survey that is part of the SI project:
   - We developed a concept, with the colleagues at RISE, as mentioned by Professor Buckwell, delineating agricultural sites in Europe with soil resilience, based on five soil-intrinsic parameters and topography.
   - We can recommend sustainable intensification for 37% of European soils.

4. The first panelist, Professor **Les Firbank (LF)**, offered his comments:
   - Different people have quite different views about what those metrics are actually trying to measure.
   - At what level do we want to balance environmental performance and food production? Individual farms? Or nationally, which might look very good on paper but will be very difficult for those poor people who want to look at some decent environment, living in one of the intensive landscapes. And then think in terms of the future, because the dynamics of these systems are changing extremely rapidly, with reference to the IPCC scenarios. So what might work now is unlikely to work in thirty years' time.

5. The second panelist, Professor **Martin van Ittersum (MvI)**, gave his comments:
   - I very much agree with Professor Buckwell, who stated that intensification is not an aim in itself, it's to achieve something, in the end, to deliver useful services. Intensification can be a means to achieve that.
   - Intensification suggests that it's relative to something, relative to the present situation. If we are at low intensity, we might have to intensify, but if we're at a high intensity, we might have to extensify.
   - The degree to which intensification, the addition of extra inputs, is sustainable, depends on environmental conditions. I would like here to distinguish between global environmental issues and local environmental issues. The global ones, like GHG emissions and phosphorus scarcity, or biodiversity, I think these can be expressed usefully in kg of losses or kg of environmental impact or kg of product. So really, the resource efficiency so to speak. But for local problems, I would very much look at emissions per hectare. And a very high resource use efficiency can nevertheless lead to local environmental problems, because the emissions per hectare are simply too high. Now, all of these of course require a very location-specific analysis in the way of sustainable intensification, so I very much agree with both speakers.

6. The third panelist, **Dr. Martijn Gipmans (MG)**, gave his comments:

- We couldn't agree more that we need sustainable intensification to supply the increasing the demand that is coming through the next decades. Whether we can call it 'sustainable intensification' or 'grow more with less' is to us a discussion of terminology and perhaps not as important.
- First of all, we should accept that this topic is complex and driven by this complex context. This means that we should look for multifactorial analyses of the topic. We shouldn't go for just one indicator for each topic, because if you concentrate too much on that you will drive the debate in the wrong direction.
- The second aspect, for us, is that measurement should be used to enable continuous improvement, rather than indicate what is sustainable or not. It's not a binary system, sustainability and if what you do on your farm is sustainable or not depends so much on the context. What we should look for is metrics and measurements that enable continuous improvements on all farms regardless of where they are producing. Metrics should not be used to exclude farmers from being in a marketplace.

7. The fourth panelist, **Dr. Maria-Luisa Paracchini (MLP)**, gave her contribution:

- All this knowledge that we gather at the higher level must somehow go back to the farmer, because if we want to improve the overall performance of the policy in the end, the main actor is the farmer .
- Concerning indicators, there is now an effort to streamline them more and more, but also to make use of data gathered at the farm level, in order to produce useful knowledge at the farm level.

8. The fifth panelist, **Claudio de Paola (CdP)**, gave his contribution*:*

- In my opinion, sustainability means to find the right efficiency on each farm that enables food and services production whilst improving biodiversity and allowing agriculture to play the fundamental social role in society that it has traditionally done so. So sustainable intensification could mean maximizing agronomic efficiency, i.e. respecting the needs of the crops and the soil capability, reducing pollution and GHG emissions, but also providing biodiversity protection, landscape protection and the protection of threatened species. And importantly, the development of farms to stabilise their income. This and the optimization of CAP subsides is very important.
- But can we identify the right course of action without indicators, without measuring these performances? With the SOSTARE report, we have tried to answer this at the local level. The SOSTARE project has been developed in the Lombardy region with the aim to propose an operational tool that could be used to model integrated sustainability at the farm level. We identified 37 basic indicators, aggregating them into 12 pillars and then aggregating them in three dimensions: agronomy, economy and biodiversity. This kind of tool could be useful to support farmers in the analysis of their performance, but also in CAP management and implementation.

9. The floor was opened for discussion

- **Philippe de [?] from Dal Agro Scientists** asked if and how we can start building knowledge rather than reinvent the wheel all the time?

- **AB** responded that we should start with the top down work that's been done over the past ten years.

- **Gabriel Odares from the European Landowners' Organisation** brought up the question of agricultural advisers as a link between farmers, scientists and policy makers. Farmers must be involved, he stressed

- **WB** agreed that we need a bridge between farmers and society. The concept of sustainability is a concept which is constantly under change based on the constant development of regions, countries, people.

- **MD***:* Yes, but they do vary, though, enormously around the world. I was in Texas last year, and the aquifers are visibly dropping, and they're not allowing any more water to be drilled. So here we are in wealthy Europe, saying 'we want more environment', and not that far away, in a very rich country, their water shortage is really looming. So this is truly the antithesis of everything that sustainability should be about.

- **John Gililano, Irish farmer** pointed out that famers' discussion groups and peer pressure has produced great positive changes in behaviour.

- **MD** asked Professor van Ittersum about how they weight individual indicators.

- **MvI** explained that it's very different in a research group to get consensus on weighting, so what they try to do is quantify each of the indicators and then look at the degree of trade-off between the indicators that are of interest to a certain group.

- **MD** pointed out that some regions will have different priorities than others.

- **MvI** explained that with the involvement of the stakeholders one can look at the individual indicators and their tradeoffs, and then eventually look at some weighting factor if that is possible, to reach some consensus.

- **Ladislav Miko, DG SANCO,** asked if the panelists could mention any examples in Europe, medium or large scale, of sustainable intensification, both socially, environmentally, and economically, which could serve as an example of where to go?

- **WB** replied that this is a very important question, but we have so many different conditions that it's hard to compare cases and say that this is good and that one's not.

- **LF** mentioned that the best evidence he had seen was when SI had happened on extremely degraded land, especially in Africa, where you start out with such a low level that it's not difficult to see good evidence that environmental, productive, social, and economic, improvements have been made.

- **AB** pointed out that the cheap answer is no, because we haven't agreed what sustainability is. There's no agreed definition.

- **Tobias Gräs** from the **Danish Agriculture and Food Council** pointed out that Dutch and Danish ammonia and GHG emissions per unit of production are half of the European average, and that this constituted an example of SI.

- **Ariel Brunner** from **BirdLife Europe** argued that people are tiptoeing around how big the problem we have really is. There is almost a linear relationship between the intensity of

agriculture and the loss of biodiversity. He urged focus on the consumption and waste side of the equation.

- **Corrado Pirzio-Biroli** from **the RISE Foundation** suggested the Commission could make recommendations for land use across Europe based on the findings from this project.

- **MD** asked about the direct correlation between biodiversity and crop yield

- **AB** replied that every farm can enormously improve its biodiversity with more knowledge and information. The problem is that this is only one of our environmental indicators, and the complexity is that we've got at least another ten or twenty.

- **MvI** pointed out that the decline in biodiversity is strongest at the low end of the yield, so the issue of indirect land use change means that more of our hectares are in this steep decline curve.

- **Phillip Merricks, UK farmer** asked whether intensifying conservation management, intensifying biodiversity management, would be an answer for Ariel Brunner?

- **MD***:* asked for a show of hands on whether people accepted that it is possible to have intensive agriculture plus intensive environmental management at the same time? The vast majority did.

- **An unknown** offered the reflection that as everybody's been talking about sustainable intensification as a 'moveable target', always changing. The objectives we're trying to reach are therefore changing and so it is even more important that we help consumers understand these complexities.

- **LF** pointed out that everybody agrees that it's possible to manage for multiple objectives, but you need a business model in there as well.

- **Ross Murray** from the **CLA** disagreed with Professor Firbank. He argued there are thousands of British farmers who are managing their land and estates because they've got an interest in hunting and they do this voluntarily, with their own money. But they are providing fantastic habitat for biodiversity, and that's an example.

- **MD** asked if they were doing it as a commercial enterprise as well, to which **RM** replied that they were often doing it for the farm.

- **MD** returned to the original question, and asked the panelists if we have to measure environmental performance and work out these indicators if we're serious about this?

- **CdP** answered 'yes we do'

- **MLP** said she thought so, as long as it helps increase the knowledge per hectare.

- **MG** answered that measurement is clearly needed at farm level, but it's always context dependent. Stakeholders must be included.

- **MvI** agreed that measurement tools must be developed with farmers.

- **LF** expanded, saying the general public should be involved as well.

- **WB** agreed that measuring is necessary. The question is how and when.

- **MD** thanked the panelists, asked if AB wanted a last word.

- **AB** agreed that the public must be involved, *b*ecause there's public good and public bad at stake here, and at the moment the performance is not good enough.

- **MD** asked if AB did not accept that when you look at Europe, in world terms, it's almost reeking of super-environmental respectability compared to many places.

- **AB** answered that he did not, and we should not be complacent that Europe is on top of the league because we have high standards, because he is not sure we are.

- **MD** asked **WB** to compare environmental standards in Europe and South America.

- **WB** explained that Brazil has a totally different structure from Europe. Brazil is almost a continent. Whereas in Europe, we have very different cultures and very different opinions on nature and nature conservation which makes it hard to come to a conclusive concept that is used all over Europe, we have to develop step by step. But it will be neither tomorrow nor the day after tomorrow.

MD wrapped up proceedings, thanked everyone for coming, and urged participants to submit further suggestions they may have.