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Commission Roadmap on Biodiversity post-2020 – Agroecology Europe Comments

Agriculture represents >50% of land use in Europe. As such, mismanagement of agricultural systems can have severe consequences on the environment, strongly contributing to pollution and biodiversity loss. This is what happens with industrial agriculture, a production paradigm aiming to maximize yields by employing high levels of energy and external inputs in simplified systems paying little attention to the natural capital conservation. These systems can only be productive with massive use of inputs (fertilisers, pesticides, water), and are becoming increasingly vulnerable to perturbations like climate change and biological invasions just because they lack the self-regulation capacity given by biodiversity. Advocates of the productivist paradigm sustain that these problems will be solved by technological fixes, like new crop varieties developed through the application of novel genetic engineering techniques. However, the ecological theory forecasts that these fixes will eventually fail if mainstream agriculture will keep on promoting large-scale simplified systems. We then need a paradigm shift towards truly sustainable farming and food systems. These can only be based on the sustainable use of agrobiodiversity at each of the three levels identified by the CBD: genetic, species and habitat (ecosystem). This alternative paradigm already exists: its name is Agroecology. Application of agroecological principles and practices at the European scale will have a tremendous positive impact on environmental protection and biodiversity conservation, just because agriculture is the dominant land use type in our continent. Agroecology is the only paradigm that can reconcile agricultural production with biodiversity conservation and that can fully meet the ambition of the EC's European Green Deal.

“Agroecology is based on the sustainable use of biodiversity and related ecosystem services in agricultural production, and thus represents a true rupture from the way agriculture has been considered by mainstream science for over a century, and the way it has been promoted since the advent of the Green Revolution. Agroecology aims to manage, and in some cases to increase, production in a sustainable and resilient way that will maintain and improve the natural capital in the long term. It will enhance the ecological processes and interactions of functional biodiversity elements above- and below-ground, across different spatial and temporal scales, by intensifying biological cycles for nutrients, water and energy, and promoting biological regulation of crop aggressors. Quote from the Proceedings of the FAO International Symposium: Agroecology for Food Security and Nutrition (p. 37)

Agroecology Europe supports the general objective, as set out in Article 3 of the LIFE Regulation (Regulation (EU) No 1293/2013), *“to contribute to the shift towards a resource-efficient, low-carbon and climate-resilient economy, to the protection and improvement of the quality of the environment and to halting and reversing biodiversity loss, including the support of the Natura 2000 network and tackling the degradation of ecosystems”* and more precisely the following priority areas and specific objectives of the sub-programme for Environment: *“Environment and Resource Efficiency”* and *“Nature and Biodiversity”*, as set out in Article 9 of the above-mentioned Regulation.

Besides, Agroecology Europe very much welcomes the priority objectives of the 7th Environment Action Programme and more specifically the following ones where Agroecology Europe can directly contribute to their achievement: *“(a) to protect, conserve and enhance the Union’s natural capital; (b) to turn the Union into a resource-efficient, green and competitive low-carbon economy”* and *“(e) to improve the knowledge and evidence base for Union environment policy”*.

More generally, Agroecology Europe welcomes all the European initiatives related to the environment, the protection of biodiversity (EU Biodiversity Strategy to 2020), the Natura 2000 network, the High Nature Value Farming (HNVF) program, the General Union Environment Action Programme to 2020 *“Living well, within the limits of our planet”*, the reduction of pesticide use, etc. as major milestones towards achieving sustainable agriculture and food systems in Europe.

If those environment-related policies and legislation have already delivered substantial improvements to the state of the environment, there remain still major challenges ahead which might have significant consequences for Europe if not addressed.

The European Commission has announced that the future CAP will *“continue to ensure access to high-quality food and strong support for the unique European farming model with an increased focus on the environment and climate, supporting the continued transition towards a more sustainable agricultural sector and the development of vibrant rural areas”*.

Indeed and as correctly stated in the Proceedings of the FAO International Symposium: Agroecology for Food Security and Nutrition (p. 140), *Agriculture faces the dual challenge of feeding a 9-12 billion global population by 2050 and reducing its footprint on the environment. While the impact of agriculture on the environment is well recognized, and there are growing calls for efforts to reduce or mitigate this impact, the ecosystem services approach presents an alternative where ecosystems are managed to support and improve agriculture. As the world’s single largest terrestrial ecosystem, agro-ecosystems must be managed for the multiple goods and services they provide. A principal question for agroecology is whether the large-scale adoption of ecosystem-based approaches is capable transforming agriculture’s environmental externalities from negative to positive, while meeting food production needs. Ecosystem services science plays a significant role in this transformation by focusing attention on how biodiversity in agricultural land uses and landscapes can be managed for multiple benefits.*

The future CAP needs to reflect social demands and the finite limits of our environment and world resources. It is time to take into account climate change, loss of biodiversity, ecosystem collapse, and depletion of resources that affects all the citizens of this planet. The CAP should support the transition towards a social and agroecological model, delivering sufficient amounts of healthy, nutritious, quality food to all EU citizens, ensures a fair income for farmers and supports micro, small and medium sized farms, while maintaining long term fertility, productivity and efficient resource use.

This is why Agroecology Europe has a high interest in contributing achieving the objective of **preserving landscapes and biodiversity** for the 2021-2027 CAP. Indeed, as correctly stated by the European Commission in one of its factsheets published on the occasion of the new CAP proposal, *“Soil is one of the most important natural resources, supplying essential nutrients, water, oxygen and support for plants, the soil provides many other essential services in terrestrial ecosystems”* and further acknowledged that *“Although it does not represent a problem that is uniformly felt throughout Europe, soil health raises a significant share of concerns. It absorbs all the consequences of human presence, both in terms of direct activities we perform on it (intensive cropping, irrigation, compaction, contamination building, etc.) and of weakening its ability to react to other natural forces, as in the case of water erosion. This is the reason why the contribution of policies to address soil protection becomes more and more relevant, based on an array of mandatory and voluntary measures in the new CAP proposal. Alongside with the uptake of integrated sustainable practices, such as **agro-ecology**, new technologies can bring an important help in this process as well, with precision farming enabling simultaneous improvements in both economic and environmental performance based on a higher degree of knowledge incorporated in best practices”*.

Finally, Agroecology Europe strongly supports the harmonization of EU policies on environmental protection, agriculture and land use planning. Too often, these policies have worked in isolation producing weak or contradictory results on biodiversity conservation, and creating tensions among conflicting resource uses. Agroecology works with nature and not against it, thus supporting it would be the best way to conserve biodiversity and achieve the multiple services that biodiversity can offer to a growing population for a healthy European economy and society.