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Upgrading the Agricultural Sector with Skills in Regenerative Agriculture

Summary

Food production is considered one the primary drivers of climate change, with the agricultural sector responsible for up to 18.4% of global greenhouse gas emissions¹. According to the Food and Agriculture Organization (FAO) of the United Nations, soil erosion induced by traditional agriculture is expected to lead to water scarcity and a crop yield diminishment of up to 50%. Considering current socio-demographic trends, traditional agricultural practices will thus not suffice to help feed the world, reach climate mitigation targets² or prevent further biodiversity losses.

In light of these alarming figures, the European Commission has identified sustainable agriculture and food systems as well as biodiversity preservation as paramount in recent EU action plans such as the EU <u>Green Deal</u>, the <u>Farm to Fork strategy</u> and the <u>EU Biodiversity Strategy</u>.

Yet, the <u>new proposals</u> for reforms of the current Common Agricultural Policy and its subsidies for European agriculture are still insufficiently linked to ecological or regenerative practices and heavily rely on intensive output-oriented mechanisms and structures (e.g. hectare-based direct payments to farmers, low consumer prices), which eventually keep unsustainable agricultural schemes afloat³.

The European Union and national governments would greatly benefit from the inclusion and promotion of often disregarded alternatives, especially that of **Regenerative Agriculture**. We present a set of recommendations aimed at emphasizing the utmost importance of such regenerative agricultural practices, and fostering its mainstreaming into vocational education for farmers.



Challenges induced by conventional agriculture

In light of the current environmental challenges engendered by traditional agriculture, the need for more sustainable farming techniques has become all-the-more pressing⁴.

Conventional agriculture is known for largely contributing to soil degradation, simultaneously engendering soil erosion⁵ and a decrease in soil fertility⁶. Intensive agriculture also induces considerable biodiversity losses⁷, while impacting overall water supplies and weather patterns, all of which is attributable to a dramatic increase in greenhouse gas (GHG) emissions⁸. The global food system is overall namely accountable for 25% of annual anthropogenic greenhouse gas emissions⁹.

Furthermore, current socio-demographic challenges, including population growth, have started putting an additional strain on agriculture, inducing greater production demands and creating a higher dependency on fossil fuels, chemical fertilizers and other unsustainable products.

Regenerative Agriculture at a glance

Regenerative agriculture is routinely identified as a consistent pathway towards sustainability¹⁰. While there is no single definition for regenerative agriculture, it could be defined as a set of tenets and practices which aims to promote, facilitate and accelerate the global transition to regenerative food, farming and land management in order to restore climate stability, increase biodiversity, rebuild soil fertility and produce healthy food. Regenerative agriculture can therefore help increase the quantity of soil organic matter and contribute to mitigating climate change.

Additionally, Regenerative Agriculture could help foster a fundamentally different model of agriculture based on the diversification of farms and landscapes and could concomitantly help fulfil many of the sustainable development goals (SDGs) laid down by the UN such as the alleviation of poverty (#1) and hunger (#2), the improvement of health (#3) and the advancement of climate action (#13).

Despite its potential, information on regenerative agriculture is mainly disseminated by niche actors within the expert sphere¹¹ and the practice is hardly promoted by national or local authorities, with no concrete policy shell backing such innovative practices - thereby reinforcing the perception of conventional intensive, industrialized agriculture as the commonly-accepted narrative.

The lack of knowledge about Regenerative Agriculture is specifically attributable to the lack of academic recognition and of a focused approach on ecosystemic agriculture. Indeed, with the exception of some newly-EU-funded projects¹², neither Regenerative Agriculture nor Permaculture constitute possible curriculum options or self-standing subjects in higher education or vocational training (VET).

The RegAgri4Europe project therefore seeks to address this gap by developing a vocational open online course (VOOC) aimed at providing apprentices and farmers with the necessary practical skills and insights to ultimately embrace practices that are respectful of the soil, biodiversity and the climate.

Such a course would simultaneously help improve networking and communication on Regenerative Agriculture, sustainable soil management and agroecological practices and thereby pave the way for the mainstreaming of agroecology and holistic food systems approaches.

Policy Recommendations

While vocational training constitutes part of the answer, it is not a full-fledged solution. Therefore, we would collectively like to **share subsequent policy recommendations** to enhance the effectiveness of sustainable agriculture, as for the EU to best meet its climate ambitions:

EU institutions, national and regional governments should secure more structural funds to invest in sustainable agriculture education, while concomitantly adapting existing policies and mechanisms to truly fit the new EU environmental and biodiversity objectives. Synergies between the Green Deal, the Farm to Fork Strategy and the future Common Agricultural Policy are of great importance in that regard.

- European competent authorities at regional, national and EU levels should invest in the educational and vocational training of farmers to allow them to upgrade their skills and further implement regenerative practices on the field.
- Agricultural schools and related university programs should be supported to develop a focused approach on (eco)systemic "agriculture" in order to popularize the practice and foster its use.

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RegAgri4Europe Project

Project Name

RegAgri4Europe -

Upgrading the Agricultural Sector with Skills in Regenerative Agriculture

Consortium

- CEFE International (Germany)
- Safe Food Advocacy Europe (Belgium)
- Schloss Tempelhof e.V. (Germany)
- Skybridge Partners (Greece)
- Agricultural University of Patras (Greece)
- ACQUIN (Germany)
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