

Balancing biodiversity & food production

Can we attain Sustainable Development Goals 'Zero Hunger' AND 'Life on Land'?

Globally, biodiversity is declining. In 2010, the EU committed to the Biodiversity Strategy (to 2020 back then, and recently extended to 2030) with the aim to halt biodiversity loss, and enhance biodiversity in Europe. These aims directly link to Sustainable Development Goals (SDGs) 15 -Life on Land-, but also to SDG 6 -Clean water and sanitation- and SDG 14 -Life Below Water-. Indirectly, biodiversity is threatened by climate change thus will benefit from SDG 13 -Climate Action-, and biodiversity is considered to underpin human health and well-being (SDG3).

Biodiversity is largely related to land use. The largest land use in the EU is agriculture and forestry. The EU is the largest exporter of agri-food products, including animal-source food. As such, the EU contributes to global food security, and SDG2 -Zero Hunger-. Although the dominant agricultural systems in Europe achieve high yields, land used for intensive agriculture competes with land uses that would benefit biodiversity, such as extensive or low-input agriculture, or nature. The high inputs of the current agricultural systems are also responsible for environmental pollution, which also compromise e.g. clean water (SDG6). Hence, there is a trade-off between SDG2 and SDGs 6, 14 and 15.

Moreover, the production of animal-source food in Europe heavily depends on imported feeds, that are produced elsewhere. On the one hand, this feed production and international trade can contribute to livelihoods (in line with SDG 1 -No Poverty-). On the other hand, the production of feed may compete with food production (SDG 2) and other land uses that would enhance biodiversity, and shift the environmental burdens of European food production to the feed-producing countries. Therefore, externalization of feed production may compromise SDGs 2, 6, 14 and 15 (in Europe and in third countries).

Internalization of European feed production would be possible in terms of available land that is currently not used for agriculture. However, this internalization would compromise biodiversity, as it would require nature area to be converted to intensive agriculture. Solutions to this trade-off may encompass redesigning the food system and reducing the overall food demand through the reduction of food waste and a change in human diets. Responsible Consumption and Production, SDG12, may be a solution to balance food production and biodiversity.

This concern sheet links with Deliverable 5.6 that can be found on the website of MAGIC.

SUSTAINABLE DEVELOPMENT GOALS

Balancing biodiversity and food production in Europe



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