

The future of farming in the EU

Position Paper
February 2023



Introduction

Eurogroup for Animals has, since its foundations, lobbied to ensure that farmed animals are effectively treated as “sentient beings”, who are able to experience both negative and positive feelings. As one step towards achieving this, Eurogroup for Animals pressures decision-makers to ensure all animal species live a good life in adherence with the “Five Domains” model. Besides this, Eurogroup for Animals calls for a 70% reduction in the production and consumption of animal-based products by 2030 in Europe (based on data from the EU and UK), to align European diets with the EAT-Lancet Planetary Health Diet¹. 70-by-30 is only the first step, and progressive additional reduction beyond this date is envisaged, creating further room for significantly improved animal welfare. The impetus for this work lies not only in the reduction of animal suffering, but also in the acknowledgement of the current climate crisis and the urgent need for food system transformation to try, as best as possible, to halt it. **Ultimately, Eurogroup for Animals advocates for a future where only plant-based food and drink, along with small amounts of food coming from cellular agriculture, is produced and consumed.**

This requires major changes to how food is produced and consumed in the coming decades, necessitating the transformation of the Common Agricultural Policy (CAP) into a Common Food Policy (CFP), which provides incentives for farmers to progressively shift to plant-based production.

The recognition of the connections between the health and welfare of human beings, animals and the planet - and therefore both the One Welfare² framework and the One Health³ concept - is the starting point of this paper, that outlines a vision on the future farming in 2050, when the wellbeing of animals is fully acknowledged, valued, and promoted.

With this document, Eurogroup for Animals goes to 2050, when this position paper is a reality.

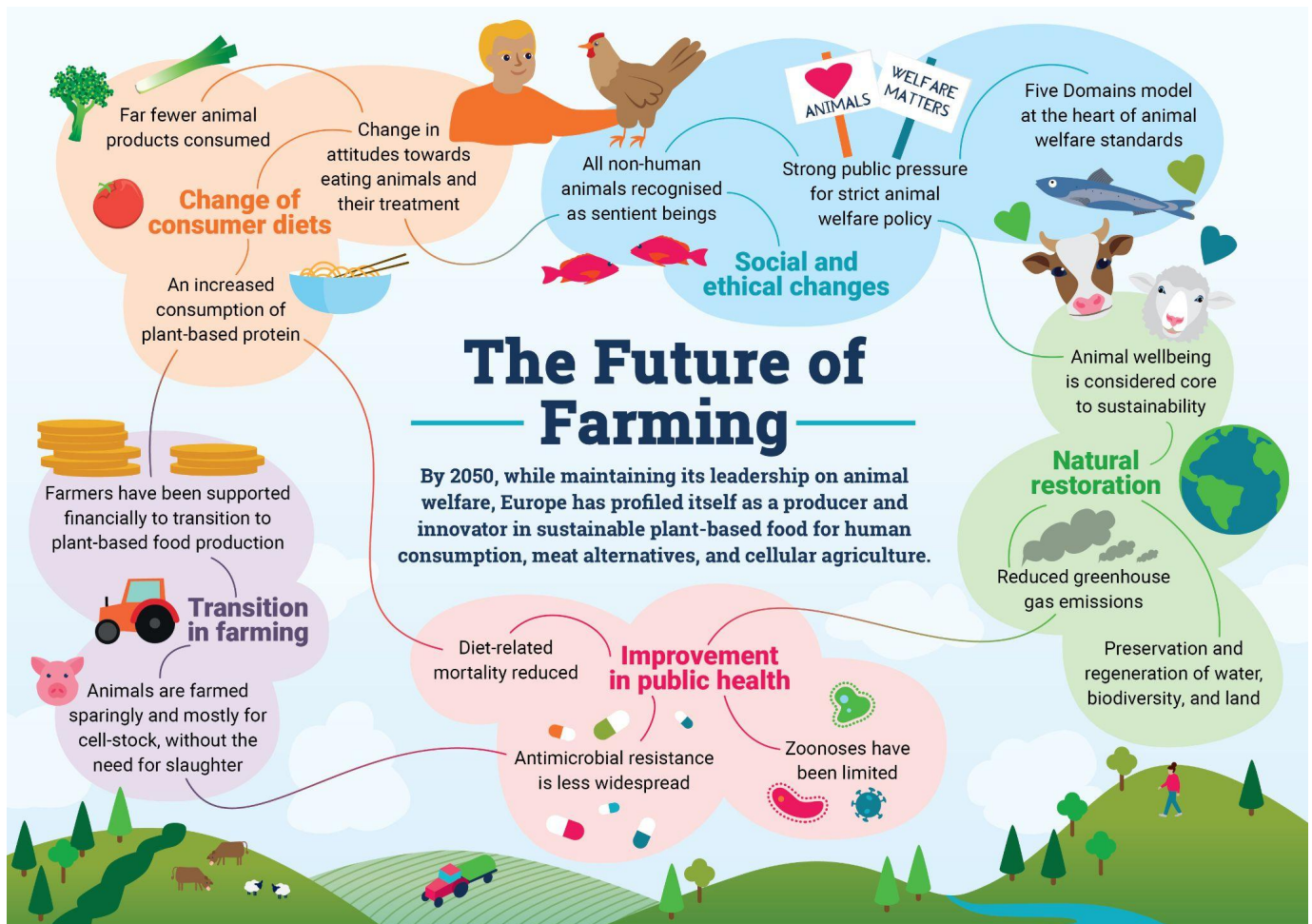
¹ The EAT- Lancet Commission on Food, Planet, Health. Can we feed a future population of 10 billion people a healthy diet within planetary boundaries?. Eatforum.org <<https://eatforum.org/eat-lancet-commission/>>. Accessed on: 11 April 2022.

² García Pinillos, R. (2018). One Welfare: A Framework to Improve Animal Welfare and Human Well-Being. CABI Publishing. June 18th, 2018.

³ Joint tripartite and UNEP statement on definition of “One Health”. United Nation Environmental Programme, 2021. <<https://www.unep.org/news-and-stories/statements/joint-tripartite-and-unep-statement-definition-one-health>>. Accessed on: 11 April 2022.

Our vision for 2050 is characterised by...

- An increased consumption of plant-based protein and significantly reduced consumption of animal products;
- A very limited number of animals raised for food production, mainly for the production of cell-stock;
- Reduced greenhouse gas emissions and preservation of water, biodiversity, and land;
- Improved public health as the emergence of zoonoses and the development of antimicrobial resistant pathogens has been limited, and diet-related mortality reduced;
- Increased awareness and knowledge about animal sentience, which has led to progress in the values that surround the treatment of all animals and is reflected in the attitudes towards eating animals.



In 2050, Europe has profiled itself as producer and innovator in sustainable plant-based food for human consumption, meat alternatives, and cellular agriculture.

Investments in research have led to more varieties of plant-based crops for human consumption being grown in the EU. Farmers have been supported financially to transition to plant-based protein and more diversified production, driving business opportunities in the plant-based sector.

Cellular products are also produced by a wide range of companies of different sizes, including local small-scale farms, thanks to easy access to bioreactors.⁴ Instead of the focus on productivity in animal breeding, traditional and robust breeds serve as cell-stocks, without the need for slaughter, while they play an ecological role by grazing.⁵ Cultivated meat has demonstrated that meat production is possible without the need to kill animals. The development of cell cultures and micro-organisms has contributed to replacing conventional animal farming. Cultivated meat, dairy, eggs, and seafood, fungal, microbial proteins, precision fermentation and biomass fermentation are well-established among consumers, readily available in stores and consumed alongside plant-based products.

The shift to largely plant-based diets in combination with new products, such as cultivated animal protein, has freed up large areas of land. Now the least amount possible of land is used for food production to leave space for wild animals and restore their habitats, both because of the intrinsic value of wild animals, and for the benefit of the ecosystem.⁶ No arable land is used for growing crops that are primarily feed for animals, and no feed crops grown on arable land outside of Europe are imported. Land that has been freed up or that cannot be used for growing human food is primarily used for rewilding, afforestation, nature conservation, bioenergy production, ecosystem services, promotion of biodiversity and carbon sequestration. There has also been reintroduction of hardy traditional crops that can grow on less fertile land to produce food.⁷

A secondary use of grassland and non-arable land is for grazing by a lesser number of animals, as part of regenerative agriculture that contributes to soil fertility and that actively fosters biodiversity.⁸ In some countries, public financial support is given to farmers to keep ruminants to protect biodiversity and provide ecosystem services, without the need to slaughter for consumption.⁹

⁴ Bock, AK., Maciej, K., Rudkin, JL., and Winthagen, V. (2020). Farmers of the Future. Publications Office of the European Union. <https://doi.org/10.2760/680650>.

⁵ Sanctorem, H. (2021). Cultivated meat - a guide for further discussion. Eurogroup for Animals. May, 2021.

⁶ Garnett, T., Godde, C., Muller, A., Rööös, E., Smith, P., de Boer, I., zu Ermgassen, E., Herrero, M., van Middelaar, C., Schader, C., and van Zanten, H. (2017). Grazed and confused? Ruminating on cattle, grazing systems, methane, nitrous oxide, the soil carbon sequestration question – and what it all means for greenhouse gas emissions. Food Climate Research Network (FCRN), Oxford Martin Programme on the Future of Food, Environmental Change Institute, University of Oxford.

⁷ *Ibidem*.

⁸ CIWF (2021). Regenerative agriculture: nurture for nature. Compassion in World Farming. 2021.

⁹ Carlsson-Kanyama, A. (2019). 'Fadderfår' skulle hålla landskapet öppet. LandLantbruk.

<<https://www.landlantbruk.se/debatt/fadderfar-skulle-halla-landskapet-oppet/>> Accessed on: 25 November 2021.



The social and ethical effects of the dietary shift, and the increased awareness and understanding of animal sentience (both scientifically and among the general public), have led to progress in societal values and attitudes towards eating animals and their treatment, as well as a strong public pressure for strict animal welfare policy. In 2050, factory farming has ended, and **animal wellbeing is recognised as an intrinsic part of sustainability**.¹⁰ Practices that do not provide a high level of animal welfare have been abandoned, as they are no longer seen as sustainable and acceptable. Food consumption patterns have changed towards primarily plant-based food. However, Eurogroup for Animals continues working to create an EU in which consumption is based on plant and cellular agriculture.

There is a very limited number of animals raised (under high welfare conditions) for the production of cell-stocks or for small amounts of meat, eggs and dairy, as well as to contribute to regenerative agriculture. These products are mainly produced for local consumption. Any animal products that are imported to the European Union follow high welfare standards equivalent to those applied in the Union. In the production cycle, animals' physical, ethological, and psychological needs are fully met; they are free from unnecessary sufferings and have the chance to have positive experiences. **Throughout the years, the “Five Domains” model¹¹ has been guiding the development and the implementation of advanced, species- and category- specific legal animal welfare standards.** Mutilations, gene editing, lower welfare breeds, force-feeding, mulling, and cages are banned. Terrestrial animals are housed in stables that have access to both outdoors and covered outdoor areas with a low stocking density. If animals are slaughtered, they are killed on farms with instant pre-cut stunning, and they never leave the European Union while alive.

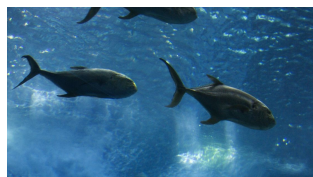
¹⁰ Visseren-Hamakers, IJ. (2020). The 18th Sustainable Development Goal. *Earth System Governance*, 3 (100047). <https://doi.org/10.1016/j.esg.2020.100047>.

¹¹ Mellor DJ., Beausoleil NJ., Littlewood KE., McLean AN., McGreevy PD., Jones B., Wilkins C. (2020). The 2020 Five Domains Model: Including Human–Animal Interactions in Assessments of Animal Welfare. *Animals*. 2020; 10(10):1870. <https://doi.org/10.3390/ani10101870>.

Aquatic animal consumption from intensive, fed aquaculture systems has ended, and consumption from aquaculture and wild capture fisheries have been almost entirely replaced by plant-based alternatives and cultivated seafood, with benefits in terms of animal welfare, public health, and environmental conservation. Marine cell cultures can grow at lower temperatures and thereby require less energy, which also lowers the production costs and makes cultivated seafood widely available. As a consequence, it has contributed to both a large reduction in the number of aquatic animals that are killed for food and to greater preservation of marine environments.¹² Production of low-trophic level aquatic animals takes place at a small scale in non-fed systems, which replicates their natural environment and makes significant contributions to carbon sequestration that are truly integrated with their environments, such as mussel farms¹³ and carp ponds¹⁴. Macro-algae is cultivated in marine environments at a scale that allows for maximal biodiversity and ecosystem resilience. Micro-algae is cultivated in open and flow-through pond-like systems, and in closed tank-based systems.

Insect farming was never allowed to scale up to be used for feed in industrial animal agriculture due to its negative impact on insect welfare, the ecological consequences of accidental releases, and the criticism that insects as feed for pigs and poultry serve to prop up industrial farming. As with other types of animal farming, **insect farming for food exists only as a very limited production on extensive small-scale farms with high animal welfare standards.** The insects are fed on crop by-products that cannot be transformed into food, and that are in-line with the needs of each species.

The lesser number of animals reared can also be fed on byproducts that humans cannot eat directly, under the condition that they are safe, tasty and fit with animals' behavioural and nutritional foraging needs. That said, **the primary use of byproducts is to process them into human edible food.**¹⁵ The per capita availability of animal-sourced protein is a maximum of 9-23g per person per day.¹⁶ However, **many people eat less animal-based food in 2050** (excluding cultivated animal-based products), due to successful political interventions at both EU and national level and the increased understanding of animal sentience.



¹² Rubio, N., Datar, I., Stachura, D., Kaplan, D., Krueger, K. (2019). Cell-based fish: A novel approach to seafood production and an opportunity for Cellular Agriculture. *Frontiers in Sustainable Food Systems*. 2019; 3(43). <https://doi.org/10.3389/fsufs.2019.00043>.

¹³ Martini, A., Cali, M., Capoccioni, F., Martino, M., Pulcini, D., Buttazzoni, L., Moranduzzo, T., Pirlo, G.. (2022). Environmental performance and shell formation-related carbon flows for mussel farming systems, *Science of The Total Environment*. <https://doi.org/10.1016/j.scitotenv.2022.154891>.

¹⁴ Edwards, P. (2015). Aquaculture environment interactions: Past, present and likely future trends, *Aquaculture*. <https://doi.org/10.1016/j.aquaculture.2015.02.001>.

¹⁵ Garnett, T., et al. (2017). *Op. cit.*

¹⁶ Hannah H. E. Van Zanten H.H.E., Herrero, M., Van Hal, O., Ross, E., Muller, A., Garnett, T., Gerber, P.J., Schader, C., De Boer, I.J.M (2018). Defining a land boundary for sustainable livestock consumption. *Global Change Biology*. Sept, 2018; 24(9):4185. <https://doi.org/10.1111/gcb.14321>.

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