Agroecology Europe's contribution to Strategic Foresights

Agroecology Europe (AEEU) would like to thank the European Commission for having invited stakeholders to contribute to this <u>public consultation on Strategic Foresights</u>.

The following contribution aims at providing relevant published (and pre-published) scientific research, analyses and data, especially documents that synthesise the current state of knowledge in the relevant fields, including available foresight studies and evidence-based input to help EU policymakers create pathways towards preferable long-term futures by proposing actionable policy recommendations, while addressing the actual questions asked in this public consultation.

Scope: what are the main challenges to long-term EU resilience and what are the strengths on which Europe can build it?

The motto of the long-term EU resilience forecast must be to follow the native American proverb that says: We do not inherit the earth from our ancestors, we borrow it from our children.

The challenges to long-term EU resilience

It is crucial that the European Commission, when setting scenarios on possible futures, gives full recognition to the enormous risks of environmental and climate tipping points, ranging them at the same level - if not more important - than risk on geopolitical challenges. Moreover, such environmental and climate tipping points can be expected to trigger social negative impacts, with high risk of instability and strong societal disturbances at regional, national, and European levels¹.

AEEU welcomes the reference in the public consultation saying 'For the EU, resilience means anticipating disruptions, absorbing them, and transforming in response to them - without compromising long-term goals and priorities. And doing all this in a sustainable, fair and democratic manner.' Also, AEEU welcomes the fact that 'The 2025 Strategic Foresight Report seeks to enhance coherence and synergies between policies that are relevant to strengthening long-term resilience.'

Furthermore, AEEU recognises the challenge in the geopolitical situation and the importance of developing a 'comprehensive framework for long-term resilience across policy priorities such as leveraging Europe's global power, sustainable prosperity and competitiveness, sustaining our quality of life and protecting democracy'.

¹ United Nations University Institute for Environment and Human Security (UNU-EHS). (2023). *Risk Tipping Points*. Bonn: Author: <u>UNU_Tipping-Points_231017_no-watermark.pdf</u>

AEEU encourages the European Commission to expand the scope of the strategic foresights to:

- Give at least equal recognition to the risk of tipping points and planetary boundaries, when setting up scenarios in the strategic foresights, and
- Look into the potential of the agricultural sector when developing transformative pathways towards avoiding soil degradation, biodiversity loss, and climate change impacts, recognising that the current agricultural sector is part of the problem, but it can also be part of the solution².

Here, AEEU would like to cite a series of examples of key studies on environmental and climate, and on tipping points that the EU needs to consider:

- The last IPCC report (Summary for policymakers)³
- The Global Tipping Points report of 2023⁴
- Tipping points in the biosphere⁵
- Warning of a forthcoming collapse of the Atlantic meridional overturning circulation⁶

As the IPCC report demonstrates, agriculture is one of the sectors which is most impacted by climate change. By impacting agriculture (but also water availability), climate change has a negative impact on food security⁷. The risk of the deterioration of food security in Europe should be taken into consideration in any European foresight⁸.

Also, it is then important that the European Commission recognises as 'drivers of change' the crucial importance of developing assumptions (scenarios/possible futures/drivers of change) on how to respect planetary boundaries and avoid/deal with tipping points (i.e.collapses of ecosystems, melting of arctic ice, permanent adverse weather patterns (e.g. extreme rainfall events and flooding, prolonged droughts, heat waves, forest fire waves)).

² Sargu, L., Ignat, G., Timus, A., Prigoreanu, I., & Sargu, N. (2025). *Economic and Energy Assessment of Emissions from European Agriculture: A Comparative Analysis of Regional Sustainbaility and Resilience*. Sustainability 2025, 17(6), 2582 - https://doi.org/10.3390/su17062582

³ IPCC. (2023). Summary for Policymakers. In Climate Change 2023: Synthetis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: Author: IPCC_AR6_SYR_SPM.pdf

⁴ Lenton, T., Armstrong McKay, D., Loriani, S., Abrams, F., Lade, S., Donges, J., Milkoreit, M., Powel, T., Smith, S., Zimm, C., Buxton, J., Bailey, E., Laybourn, L., Ghadiali, A., Dyke, J. (2023). *The Global Tipping Points Report 2023*. Exeter: University of Exeter: Global Tipping Points | Home

⁵ Global Tipping Points Report 2023 - Section 1 Earth System Tipping Points - 1.3. Tipping points in the biosphere

⁶ Ditlevsen, P., & Ditlevsen, S. (2023). *Warning of a forthcoming collapse of the Atlantic meridional overturning circulation.*Nature Communications 14 - https://doi.org/10.1038/s41467-023-39810-w

⁷ Gupta, H. (2023). Climate change is accelerating the global food crisis, we must act now to protect the most vulnerable. Retrieved from: How climate change is accelerating the global food crisis I World Economic Forum

⁸ EU Commission. (2023). State of Food Security in the EU - A qualitative assessment of food supply and food security in the EU within the framework of the EFSCM - 1st report on the State of Food Security in the EU (Autumn 2023)

Agroecology Europe calls on the European Commission to recognize agroecology as a promising and key solution for the future of the EU food system as many studies demonstrate that agroecology and related practices are approaches that manage to adapt and mitigate climate change in agriculture^{9,10,11,12}.

Moreover, there are foresight models that present what an EU Agroecological food system could look like and what are the possible paths to transition towards such an agroecological system:

Examples at European level

- An agroecological Europe in 2050: multifunctional agriculture for healthy eating¹³
- The economic potential of agroecology: Empirical evidence from Europe¹⁴
- Towards a Chemical Pesticide-Free Agriculture in Europe¹⁵
- Afterres2050 scenario: food, cultivating, breeding animals, using biomass and farmlands for evaluating agronomical, environmental and socio-economic impacts at French country level¹⁶

Examples more on a global level

- Agrimonde-Terra: a set of scenarios to explore what the future holds for food security and land use^{17,18}
- Global review on the socioeconomic performance of agroecology¹⁹

⁹ FAO & Biovision. (2020). The potential of agroecology to build climate-resilient livelihoods and food systems. - The potential of agroecology to build climate-resilient livelihoods and food systems - summary

¹⁰ Bezner Kerr, R., Postigo, J., Smth, P., Cowie, A., Singh, P., Rivera-Ferre, M., Tirado-von der Pahlen, M., Campbell, D., & Neufeldt. (2023). *Agroecology as a transformative approach to tackle climatic, food, and ecosystemic crises*. Environmental Sustainability, Vol.62 - https://doi.org/10.1016/j.cosust.2023.101275

¹¹ Dittmer, K., Rose, S., Snapp, S., Kebede, Y., Brickman, S., Sheltin, S., Egler, C., Stier, M., & Wollenberg, E. (2023). *Agroecology Can Promote Climate Change Adaptation Outcomes Without Compromising Yield In Smallhoder Systems*. Environmental Management (2023)m 72:333-342 - https://doi.org/10.1007/s00267-023-01816-x

¹² IFOAM-EU, Biovision, FiBL, IFOAM-Organics International. (n.a.). *SBI/SBSTA Koromovia Joint Work on Agriculture: 2(e) livestock management and, 2(f) socio-economic and food security dimensions of climate change, Response from Biovision, FiBL, IFOAM-EU and IFOAM-Organics International.* Bonn: IFOAM - Organics International - Microsoft Word - SB52 KJWA_IFOAM - OI, Biovision, FiBL, IFOAM EU.docx

¹³ Poux, X., & Aubert, P. (2018). *An agroecological Europe in 2050: multifunctional agriculture for healthy eating - Findings from the Ten Years For Agroecology (TYFA) modelling exercise*. Paris: Institut du developpement durable et des relations internationales (IDDRI) -

https://www.iddri.org/en/publications-and-events/study/agroecological-europe-2050-multifunctional-agriculture-healthy-eating 14 Van der Ploeg, J., Barjolle, D., Bruil, J., Brunori, G., Costa Madureira, L., Dessein, J., Drag, Z., Fink-Kessler, A., GAsselin, P., de Molina, M., Gorlach, K., Jurgens, K., Kinsella, J., Kirwan, J., Knickel, K., Lucas, V., Marsden, T., Maye, D., Migliorini, P., Milone, P., & Wezel, A. (2019). *The economic potential of agroecology: Empirical evidence from Europe*. Journal of Rural Studies, Vol71, 46-61 - https://doi.org/10.1016/j.jrurstud.2019.09.003

¹⁵ European Research Alliance (ERA) Pesticide Free - Towards a chemical pesticide free agriculture

Couturier, C., Charru, M., Doublet, S., & Pointereau.(2016). *The Afterres2050 scenario - 2016 version*. Toulouse: Solagro Association - https://afterres2050.solagro.org/wp-content/uploads/2021/06/solagro_afterres2050_version2016_english.pdf
 Mora, O., Le Mouet, C., de Lattre-Gasquet, M., Donnars, C., Dumas, P., Rechauchere, O., Brunelle, T., Manceron, S., Marajo-Petitzon, Moreau, C., Barzman, M., Forslund, A., & Marty, P. (2020). *Exploring the future of land use and food security:* A new set of global scenarios. https://doi.org/10.1371/journal.pone.0235597

¹⁸ Le Mouet, C., de Lattre-Gsquet, M., & Mora, O. (2018). Land Use and Food Security in 2050: a Narrow Road. Versailles: Edition Quae - https://library.oapen.org/bitstream/handle/20.500.12657/22799/9782759228805.pdf?sequence=1&isAllowed=y
¹⁹ Mouratiadou, I., Wezel, A., Kamilia, K., Marchetti, A., Paracchini, M., & Barberi, P. (2024). The socio-economic performance of agroecology. A review. Agronomy for Sustainable Development (2024) 44-19 - https://doi.org/10.1007/s13593-024-00945-9

Concretely, AEEU proposes that the European Commission adds the following inputs into EUs strategic reflections when developing agricultural transition pathways:

- Agroecological and other innovative approaches, and transition pathways^{20,21}
- Governance networks for agroecology transitions in rural Europe²²
- Wallon government initiative promoting agroecology, called TerraE²³

The strengths on which Europe can build its resilience

This public consultation recalled that the EU should 'enhance coherence and synergies between policies that are relevant to strengthening long-term resilience'.

The most appropriate way forward is moving towards full implementation of the EU Green Deal, and as part of that, continue to develop and implement its policies enhancing long-term resilience, keeping soil healthy, combating climate change and biodiversity degradation.

Plus, the EU should ensure policy coherence, and not simplify but strengthen the green architecture of the Common Agricultural. While efficiency in policies and regulations is important, it cannot be used as a mechanism to deteriorate commitments to biodiversity restoration, climate change mitigation and adaptation, economic fairness, ... That would put in jeopardy the future capacity of the EU to cope with future challenges (climate change impacts, geostrategic tensions, ...).

Europe's strength is the EU Green Deal. The scenario setting of the Strategic Foresight needs to take into account the potential of COP negotiations.

It is fundamental that resilient societies and fairness are being created not only in Europe but globally. The EU should build on the fact that 197 countries including the European Commission and a number of its member states signed up to the 10 elements of agroecology of FAO in 2019²⁴. In October 2024, environmental ministers called on the 13 principles of agroecology to be integrated into the COP on soil desertification²⁵.

- The conclusion of the last COP Biodiversity²⁶
- The conclusion of the last COP Desertification²⁷

²⁰ HLPE. (2019). Agroecology and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. Rome: UN Committee on Food Security - https://openknowledge.fao.org/server/api/core/bitstreams/ff385e60-0693-40fe-9a6b-79bbef05202c/content

²¹ Wezel, A., Gemmil Herren, B., Bezner Kerr, R., Barrios, E., Rodrigues Goncalves, A., & Sinclair, F. (2020). *Agroecological principles and elements and their implications for transitioning to sustainable food system. A review.* Agronomy for Sustainable Development (2020) 40:40 - https://doi.org/10.1007/s13593-020-00646-z

²² Gava, O., Vanni, F., Schwarz, G., Guisepelli, E., Vincent, A., Prazan, J., Weisshaidinger, R., Frick, R., Hrabalova, A., Carolus, J., Yoldi, U., Pyysiainen, J., Smyrniotopoulou, A., Vlahos, G., Balazs, K., Janos Szilagyi, A., Jegelevicius, G., Miksyte, E., Zilans, A., Fratila, M., & Povellato, A. (2025). *Governance networks for agroecology transitions in rural Europe*. Journal of Rural Studies, Vol114 - https://doi.org/10.1016/j.jrurstud.2024.103482

²³ https://www.terrae-agroecologie.be/

²⁴ FAO. (2019). The 10 elements of agroecology - Guiding the transition to sustainable food and agricultural systems - https://openknowledge.fao.org/handle/20.500.14283/i9037en

²⁵ Council of the European Union. (2024). *Desertification, Land Degradation and Drought - Council conclusions (14 October 2024) -* https://data.consilium.europa.eu/doc/document/ST-14146-2024-INIT/en/pdf

²⁶ UN Convention on Biological Diversity. (2024). *Outcomes*. Retrieved from: <u>COP-16 - Documents</u>

²⁷ UN Convention to Combat Desertification. (2024). Report of the Conference of the Parties on its sixteenth session, held in Riyadh, Saudi Arabia, from 2 to 13 December 2024 - Part two: Action taken by the Conference of the Parties at its sixteeth session - 2424652E.pdf

The conclusion of this specific COP expresses that it is necessary to "(...) continue developing, defining and promoting the use of sustainable land and water management practices and approaches with high potential for combined environmental and socio-economic gains, such as nature-based solutions and/or ecosystem-based approaches, schemes for payment for ecosystem services, agroecology, agroforestry and other sustainable agricultural practices, and to collaborate on projects that contribute to the achievement of the Sustainable Development Goals relevant to the United Nations Convention to Combat Desertification²⁸". In that sense, as the EU has been leading and is engaged in advancing these commitments, it could take the lead in opening up an honest and participative dialogue in parallel at the three COPs of the Climate change, Biodiversity, and Desertification Conventions around how to face a fair transition of agriculture without harm for all people, territories and political stability.

Imagine 2040: How would you characterise a resilient EU in 2040?

The way forward developing transition pathways through increased uptake of agroecology.

An agroecological world in 2040 could look like:

- Diversified farming is promoted by policies. The role of biodiversity in providing benefits for farming and for the whole society is recognized and highly valued. Consumers are aware of the importance of a short supply chain for the sustainability (social, economic, and environmental) of farming systems, consequently the demand for local products is high.
- The territorial approach is promoted by policies where local markets and short supply chains are highly developed. Local communities are engaged around local supply chains and territorial diversities are economically and socially valorised. Young farmers are replacing aging farmers and are encouraged to start a new farm thanks to policy support. Access to land is easier and secured for new farmer.
- There is an increase in the number of farming cooperatives and farm innovation networks that enable farmers to share resources (e.g. equipment/labour), and combine their learning to keep innovating both in terms of production and marketing.
- Healthy food policies are strong and consumers are encouraged to demand high-quality food instead of cheap and high-calories food. Farmers diversify their production to meet the high demand of local and high-quality products. Diversity of crops and cultivars is exploited because of the higher nutritional quality and adaptability to local environments. Farmers are paid a fair and decent price for their production.
- Thanks to the higher adaptability of a high-biodiversity system, it is not necessary to rely on chemicals to maintain productivity. Diversified crop rotations, increasing crop/livestock systems, and the maintenance of semi-natural habitats that host beneficial insects help increase biodiversity that, in turn, helps keep pests and

²⁸ Conference of the Parties Desertification, (2024). *Enhancing the implementation of the Convention and the 2018-2030 Strategic Framework of the United Nations Convention to combat Desertification*. 7-cop16.pdf

diseases under control. Farms have adopted practices to increase on-farm recycling of nutrients and energy. The transition towards agroecology has reduced the dependence on fossil fuels and chemical inputs of the EU food system (by applying practices that rely much less on chemical inputs to produce and valorise best natural resources and ecosystem services), which consequently has increased EU resilience, sovereignty, and independence vis-a-vis other countries²⁹.

 Farms are resilient face to climate change impacts due to the implementation of agroecological practices.

In addition, beyond facilitating the uptake of sustainable and healthy diets, EU resilient food systems should seriously tackle the issue of drastically reducing food waste from the alarming present global level of 30%³⁰, which is unethical besides being environmentally and socio-economically unsustainable. This issue is another key pillar of the agroecological approach.

Society and generations: How can we ensure a resilient society and fairness between generations?

The EU should better engage with civil society organisations and citizens when developing such strategic forecast reports. The EU should reinforce democracy within the Union and in the Member-States.

An important step in developing a resilient society and fairness between generations is to ensure that these strategic forecast reports are not only limited to 'discussions with other EU Institutions via the European Strategy and Policy Analysis System'. AEEU welcomes this public consultation, but looking at the limited number of respondents it is crucial to find other ways to ensure full inclusion of reflections from civil society organisations.

Nowadays European democracy is shaken by interests that want to limit it or even destroy it³¹, but for the sake of good livelihoods for European citizens, prosperity, and fairness, it is paramount that the EU commits to reinforce democracy in the EU. Democracy is not limited to voting. Citizens must be informed with science-based facts and reality, and the Rule of Law should be upheld in every EU Member-State and civil society organisations should be sufficiently supported in the Multiannual Financial Framework³².

²⁹ To go further: <u>EU fertilizer dilemma: How to kill Putin's profits without hitting farmers – POLITICO</u>

³⁰ EU Commission. (n.a.). Food Waste. Retrieved from Food Waste - European Commission

³¹ International IDEA (2023). *The state of democracy in Europe*. Retrieved from <u>The state of democracy in Europe – The Global State of Democracy 2023</u>

³² Ipsos European Public Affairs. (2023). *Flash Eurobarometer 522 Democracy - March 2023*. Ghent: Author - <u>Flash Eurometer 522 - Democracy</u>

Long-term resilience: Which critical policy actions should be initiated today to strengthen resilience in the EU by 2040?

The EU should identify transition pathways within the approach of the European Union being "United in Diversity" (an EU slogan from a few decades ago) with attention focused on uptake of agroecology in a territorial and/or regional approach.

The EU should consider transforming the CAP so that it becomes the Common Agroecology Policy, embracing agroecology as the main paradigm of the future EU Food System.

Finally, while the idea of social tipping points³³ is important as part of the strategic reflections on transition pathway actions that need to be accompanied by the European Commission developing and implementing EU environmental, climate and agricultural laws, it cannot rely on citizens willingness to engage all alone.

Synergies and tensions: What crucial synergies and tensions can be identified across various EU priorities which might, respectively, help or hamper EU's long-term resilience? How can we enhance these synergies and mitigate these tensions?

Developing a resilient, agroecological and sustainable EU food system could create tensions with other EU priorities (such as the development of new Free Trade Agreements that integrate agriculture). As the EU food system has impacts on various policy fields (agriculture, trade and economy, health, environment, ...), its transformation towards a resilient food system for 2040, based on agroecology demands that the different involved DGs work together and strengthen their collaboration, to limit the tensions. Political choices are made in coherence with the global objective of 'agroecologizing' the EU food system.

Enhancing strategic foresight: How could the European Commission further improve its approach to strategic foresight to increase its impact on designing EU policies for a desirable future?

Implement what is being mentioned above.

³³ Pizzioli, V. & Tavoni, A. (2024). From niches to norms: the promise of social tipping interventions to scale climate action. npj Clim. Action 3, 46 - https://doi.org/10.1038/s44168-024-00131-3