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Sylvia Karlsson-Vinkhuyzen¹, Pavlína Schultzová² and Lucy Fisher³

¹*Public Administration Policy Group, Wageningen University, Wageningen, Netherlands*

²*Global Change Research Institute of the Czech Academy of Sciences, Brno, Czech Republic*

³ Earth Systems and Global Change Group, Wageningen University

TRANSPATH

Transformative pathways for synergising just biodiversity and climate actions



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1 Preface

Making a comprehensive review of policies that can synergistically address both biodiversity loss and climate change is far beyond the scope of this report. What we have done is to take a two-pronged approach to narrow down the focus of the review. We identify the most useful areas of interventions for policies by cross-referencing the knowledge summarized in IPBES and IPCC assessments with the priorities of the TRANSPATH cases. This version is the first of three and includes place holders for more results from the project as they unfold over the coming months. The summary must thus be seen as both preliminary and incomplete. As the joint formulation of transformative pathways across the different work packages takes shape it will also be possible to make more targeted identification of the types of policies that can support these and examine what the literature has to say about these.

2 Summary

The review of the large IPBES and IPCC assessments provides important insight into the synergistic potential of specific interventions that could be leveraged to curb biodiversity loss and mitigate climate change. We find a long list of synergistic largely physical interventions in the 'sectors' of land, energy, food, forests and cross-cutting, but we also find albeit a shorter list of interventions with risks for trade-offs. How to bring synergistic interventions off the ground is the next question – and here the assessments provide a number of rather broad governance options, and while they are mostly not specific down to the type of policy instrument, they do provide directions for policy development. Importantly they point us to a much broader set of policy options than what has traditionally been the focus of biodiversity or climate change policies.

In the following chapter 6, these are translated and reflected in the Czech context, building upon the findings of the Czech case study, in the form of a policy review. The policies identified in the current Czech legislative environment as having the most promising leverage potential are those related to food system decentralization and the shortening of food supply chains. In this context, we also examine the current efforts to mainstream the principles of sustainable public procurement at both national and local governance levels in Czechia. Despite the benefits of applying such principles in public procurement, price remains the most prominent factor in public spending decisions in many European countries, including Czechia making this a disabling factor for moving forward in a desirable direction. However, the policy review identified a significant gap in supply chain policies, which are currently set up in an inadequate manner, and are instead creating an unfriendly environment for small local businesses. Compared to other European countries and their best practice examples, Czechia is falling substantially behind in policies promoting food system decentralization and shortening food supply chains.

In chapter 7 our policy review is focused on how farmers in England can be supported by the state to deliver coordinated environmental improvements at a landscape scale. Landscape-level approaches to conservation are both praised as important interventions and at the same time highly contested. In this chapter we analyse efforts to strengthen farmers' willingness and capacities to work together for environmental outcomes including what may happen when funding for such efforts is phased out. Our research shows that joining a group of farmers is primarily motivated by the desire to learn from each other, in such groups they can get first hand advice, practical tips, and the chance to compare practices with neighbours. Over time membership of such a group also enables more advanced learning when neighbours demonstrate visible achievements - such as water monitoring or restored ponds – which reinforces the commitment of the group as it seen to have tangible impacts.

Chapters 8-10 will be developed in the next versions of the policy review.

3 List of abbreviations

AFOLU: Agriculture, Forestry, and Other Land Use

CEE: Central and Eastern Europe

EU: European Union

GDP: Gross Domestic Product

GHG: Greenhouse Gas

ICT: Information and Communication Technologies

IPCC: Intergovernmental Panel on Climate Change

IPBES: Intergovernmental Platform on Biodiversity and Ecosystem Services

KMGBF: Kunming-Montreal Global Biodiversity Framework

SDG: Sustainable Development Goal

SMEs: Small and medium-sized enterprises

WP: Work Package

4 Introduction

This policy review aims to make visible what can be learned about public policies at different levels that can support the realisation of transformative pathways across different governance system levels. In TRANSPATH we are seeking to identify leverage points, places to intervene in a system, where ‘a small shift in one thing can produce big changes in everything’ (Meadows 1999). Public policies can serve as different types of leverage points – from the most ‘superficial’ as influencing parameters through providing financial incentives to enabling information flows or setting the rules of the system. At an even deeper level policies can capture the goals of the system – which, if they are allowed to influence action – in turn can influence the potential of less deep leverage points. Furthermore, evidence highlights that it is usually policy mixes rather than single policies that can catalyse these shifts.

As argued in TRANSPATH deliverable 1.2, in our theoretical framework, researchers can be more helpful for transformations if they focus also (in addition to more ‘shallow’ interventions) on identifying interventions that work towards addressing systems’ intent and design as these deal with the deep and ultimate causes of unsustainability. It is against this background that the value of the Transformative Change Assessment’s identification of the underlying drivers of biodiversity becomes clear for efforts to identify policies that can either create the enabling conditions for such change or directly leverage it.

In this report we have made use of not only the Transformative Change Assessment but also other assessments by IPBES and IPCC. In chapter 5 we use the latest assessments from these international bodies to identify interventions and governance/policy strategies that are synergistic for addressing both climate change and biodiversity loss. In chapter 6 we draw on the case study from Work Package 2 in Czechia, cross-referencing the interventions stakeholders identified there with the lists of synergistic interventions from chapter 5. This leads us to take a closer assessment of policies that support sustainable public procurement, decentralisation and shortening of food systems. In chapter 6 we turn to a case study in the United Kingdom from Work Package 2 where we examine policies that support efforts by the state to encourage farmers in England to deliver coordinated environmental improvements at a landscape scale. Chapter 7 is a place holder for a review of policies supporting the financial sector to address biodiversity that will draw on results from Work Package 4. Chapter 8 has been added as a direct result of the analysis in chapter 5, where strengthening human-nature connectedness emerged as deep leverage point. The question we will ask here (the analysis is not yet made) is how EU policies could play a role for reconnecting humans and nature. Finally, chapter 9 is a place holder for more targeted analysis of policy mixes that can enable the joint TRANSPATH transformative pathways that will be identified in the project’s last year.

5 Insights from global assessments on climate change and biodiversity

This chapter aims to provide an overview of interventions, as concluded by a subset of global assessments, that are simultaneously synergistic for biodiversity and climate change, as well as those interventions from which there are risks for trade-offs for one or the other of these two global challenges. Moreover, it examines the direct and indirect drivers that assessments have identified as being common to both climate change and biodiversity loss – as addressing such ‘synergistic’ drivers can be useful intervention points. Interventions and drivers listed in the tables come from several of the most recent assessments that focus on climate change and biodiversity respectively – the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). We included the most recent global assessments from these institutions as well as one of IPBES’ thematic assessments that explicitly focuses on biodiversity and climate interlinkages: *Climate Change 2023: Synthesis Report* (IPCC, 2023), *IPBES Global Assessment of Biodiversity and Ecosystem Services* (IPBES, 2019), *IPBES-IPCC Workshop Report on Biodiversity and Climate Change* (Pörtner et al., 2021), and the *IPBES Thematic Assessment Report on the Interlinkages among Biodiversity, Water, Food and Health* (IPBES, 2024).

The selection process of the interventions and drivers was based on several criteria. First, the review focuses on terrestrial (land-based) interventions only as TRANSPATH is not engaging with water/marine cases; hence, their categorization is based on the energy, land, forest, and food sectors. Second, the listed interventions focus on the physical/natural aspects of climate change and biodiversity loss, whereas governance, financial, and policy tools and instruments are excluded from the tables and instead presented in the final part of this chapter as a list as we see these as different analytical levels.

Regarding energy interventions, there are generally trade-offs with biodiversity, with no significant impact or insufficient evidence of impact. The synergistic interventions within the energy sector category are therefore those with no impact on biodiversity. However, it is essential to note that all interventions aiming to mitigate climate change are highly dependent on their implementation – if the implementation takes biodiversity into account, the interventions can synergize climate change mitigation with biodiversity loss reduction. For example, solar and wind energy production can be beneficial for biodiversity if used in concert with agriculture (agrivoltaics) or technology-based measures (e.g., artificial reefs on offshore turbines), respectively.

The interventions in Table 1 are categorized based on the sectors they are targeting, namely the energy, land, forest, and food (in the broadest sense of food production and security, food quantity and quality) sectors. The last category, called “other”, encompasses rights and justice issues, urban planning, pollution, and measures that are cross-cutting and cannot be categorized under a single sector. The highlighted (yellow and bold) interventions are those identified by the WP2 Czech case study as significant from the stakeholders’ perspective. Together with the interventions marked with an asterisk, identified by the IPBES Nexus Assessment (2024) as particularly significant since they simultaneously advance more than five Sustainable Development Goals (goals number 2, 6, 13, 14, 15, 17) and more than five Kunming-Montreal Global Biodiversity Framework’s targets, and the input from other work packages, we will in later versions of the policy brief be able to shortlist the table further and focus on few synergistic interventions in depth. For example, there is considerable alignment in the factors in Table 1 with the analysis of interventions for biodiversity and climate change in the scenario literature in WP3 where agro-ecological intensification/sustainable land use management as well as food consumption, loss, and waste/deduced food waste, diet changes came out as important.

Table 1. Classification of interventions for biodiversity loss and climate changes

Sector	Synergistic interventions	Trade-off interventions
Energy	<ul style="list-style-type: none"> • Reduce methane from coal, oil and gas 	<ul style="list-style-type: none"> • Solar and wind energy production • Bioelectricity • Geothermal and hydropower energy production • Nuclear energy production • Energy efficiency measures
Land	<ul style="list-style-type: none"> • Efficient livestock systems • Improved cropland management • Biodiversity management and ecosystem connectivity • Conservation management measures; *Area-based conservation • *Agroforestry; agroecology • *Restore soil health • Soil moisture conservation • Farm and landscape level diversification in agriculture • *Integrated landscape approaches • Sustainable land management approaches; Sustainable land use • Ecosystem-based adaptation measures: urban greening, restoration of wetlands/peatlands and upstream forest ecosystems; Ecosystem-based adaptation in rural landscapes* • Reduce/halt conversion of natural/intact ecosystems • Carbon sequestration in agriculture • Reduce methane and N₂O in agriculture • Sustainable agricultural and agroecological practices (e.g., multifunctional landscape planning, cross-sectoral integrated management) • Restoring land and ecosystems • Protection and restoration of carbon-rich and species-rich ecosystems • Nature-based solutions¹ • Improving the management of agricultural systems (e.g., soil carbon) 	<ul style="list-style-type: none"> • Large-scale biomass crop production • Manage alien species • Offshore wind power • Solar photovoltaics on land

¹ IUCN (2016) definition of nature-based solutions: “actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.”

	<ul style="list-style-type: none"> • Preventing the degradation of wetlands and peatlands • Wetland conservation and restoration • *Ecological intensification – rangelands, croplands 	
Forests	<ul style="list-style-type: none"> • *Forest conservation • Reforestation, afforestation, and ecological restoration of degraded forest habitats • Sustainable forest management • Eliminating illegal logging • Increasing efficiency in forest product use • Reducing deforestation • Forest-based adaptation 	<ul style="list-style-type: none"> • Large-scale afforestation (of not previously tree-covered ecosystems) • Reforestation with monocultures
Food	<ul style="list-style-type: none"> • Shift to sustainable healthy diets* • Reduce meat overconsumption • Reduce food loss and food waste • Transforming supply chains (targeting the whole chain from the beginning to the end in order to reduce food waste, overconsumption, and the demand for animal products.) 	<ul style="list-style-type: none"> • Rewilding • Forest-based practices to address climate change* • Reduce nutrient pollution
Other (cross-cutting, rights & justice issues, urban planning, etc.)	<ul style="list-style-type: none"> • Sustainable urban planning • Urban green infrastructure* and ecosystem services • Urban nature-based solutions* • Pollution prevention • *Reconnecting people with nature • Combination of nature-based and technology-based measures (e.g., artificial reefs on offshore turbines) • Reduced consumption • Sustainable exploitation of natural resources 	<ul style="list-style-type: none"> • Some climate technology-based solutions (e.g., mining for minerals for batteries) • Some climate adaptation technological measures (e.g., building dams and sea walls)

Note: Interventions marked with an *are those that simultaneously advance more than five SDGs and more than five KMGBF targets (from IPBES, 2024). Interventions in bold and yellow highlight are those that were also identified as most important by the stakeholders in the TRANSPATH case in the Czech Republic.

Table 2. Direct and indirect drivers that are causing both biodiversity loss and climate change

Direct drivers	Indirect drivers
<ul style="list-style-type: none"> • GHG emissions (climate change) • AFOLU: Agriculture, Forestry, and Other Land Use • Pollution 	<ul style="list-style-type: none"> • Dominant economic systems (economic growth): GDP, trade • Demographic: population growth, urbanization • Cultural: per capita consumption • Institutional: armed conflicts

	<ul style="list-style-type: none"> • Technological change: renewable energy (solar, wind, etc.), use of ICT (information and communication technologies) • Fragmented governance (resulting in conflicting objectives, duplication of efforts)
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Note: The direct and indirect drivers that assessments have identified as being common to both climate change and biodiversity loss and addressing such 'synergistic' drivers can be useful intervention points.

The governance tools/approaches that can synergistically address biodiversity loss and climate change which the assessments mention include the following (those with an * simultaneously advance more than five SDGs and more than five KMGBF targets (from IPBES, 2024):

- Improving food market transparency (e.g., labelling and sustainability certification)
- *Rights-based approaches: Applying human rights principles to conservation and other measures, and accounting for the rights of nature and the rights of non-human entities; this includes recognizing the rights of Indigenous Peoples and local communities and of women, such as to land and territories, water, food, health and a safe and clean environment.
- Foster gender transformative approaches: A range of options to end gender-based discrimination in the context of food systems; for women this includes increasing access to resources and markets, securing land tenure, inclusion in value chains, improved labour conditions and economic empowerment.
- Indigenous food systems: Recognizing and respecting Indigenous Peoples' food production systems and food requirements, formalizing and securing their land tenure rights on traditional territories and supporting safe, healthy and sovereign Indigenous food systems.
- Access to natural resources and land: Promoting, enabling and securing equitable access to natural resources and land, and securing land tenure rights for vulnerable and marginalized groups, including Indigenous Peoples and local communities.
- *Multilateral environmental agreements
- Equitably redistributed consumption
- Policy interventions within the climate-biodiversity-society nexus
- Reformed governance system (e.g., that uses systems perspective and adaptive management)
- Circular economy
- *Sustainable bioeconomy: An economic model based on the use of renewable natural capital, including biological resources, that minimizes waste and reduces the use of fossil-based energy and products to conserve nature, mitigate climate change and support sustainable, equitable development.
- Biodiversity offsetting (if set up correctly)²

The list here shows the broad categories of governance approaches that these assessments have identified by reviewing the literature. Hardly any of them are specific enough with regard

²Biodiversity offsetting is the practice of mitigating the negative impacts of developments on biodiversity (e.g., mining, urban/housing development, agricultural expansion) by restoring the biodiversity, or setting aside areas for protection, elsewhere in remote sites.

to policy instruments but they do give directions for identifying potentially suitable policy instruments and specific policy designs. Perhaps the most important conclusion to draw is the wide scope of approaches that are highlighted which have not been the main focus of biodiversity or climate change policies.

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6 Policy analysis: Decentralization and supply chain transformation in Czechia

This policy analysis aims to synthesize previous work from WP1, together with other relevant work packages in the TRANSPATH project, into a review of relevant policies related to the TRANSPATH transformative pathways across different governance system levels.

The role of supply chains and the decentralization of food systems was seen as crucial in the Czech case study, evident throughout each research stage, from the initial scoping interviews to the participatory workshops with relevant stakeholders from these sectors (TRANSPATH D2.1). This was particularly prominent during the Fuzzy Cognitive Modelling workshop, where participants highlighted the role of these factors within the systems map, which influence the whole dynamic of food systems transformation. Based on this work, the policy review selected two types of policies: supply chain transformation policies, specifically in terms of food-related public procurement, and decentralization policies, particularly those that impact local farm shops and sales associations, promoting the sale of local and sustainably produced products. This choice also aligns with the findings of the IPCC and IPBES Assessments, which highlight the significant synergistic effect of these interventions within transformation efforts towards a socially just climate and biodiversity future as described chapter 5.

The policy review described in the following sections assesses cross-scale and cross-regional policies, specifically Czech policies at the national and local scales, as well as their links to EU-level policies. The rest of the chapter is structured as follows: first, the methodological steps are described; then, the Czech public procurement and decentralization policies are reviewed, including their evaluation, assessed policy gaps, and recommendations, while also providing a cross-regional comparison of policy implementation.

6.1 Methodology

In the early summer of 2025, three expert semi-structured interviews were conducted in Czechia with one interviewee from the Ministry of Regional Development on the topic of public procurement and two interviewees from a farm shop and a sales association, respectively, on decentralization policies. The interviews focused on both enabling and disabling policies that influence sustainable public procurement and decentralization efforts related to supply chain transformation in Czechia. A particular focus was on the level of policies mentioned and their potential link to EU-level policies. For more details, please refer to the interview guide below (Table 1). The interviews were later anonymized and analysed in the MAXQDA software.

THEME	QUESTION	NOTES
Enabling policies	What legal regulations support environmentally sustainable public procurement/helped you in the operation/establishment of your association/business?	Generally speaking, all levels
Follow-up questions on enabling policies	What is the level of this legal regulation?	National/regional/EU?
	Who is the author of this legal regulation?	Who created/issued it?
	How specifically has this legal regulation helped?	In which aspects?
Disabling policies	Which ones, on the other hand, make sustainable public	Generally speaking, all scales

	procurement/your business operation more difficult?	
Follow-up questions on disabling policies	What is the level of this legal regulation?	National/regional/EU?
	Who is the author of this legal regulation?	Who created/issued it?
	How specifically does this legal regulation make it more difficult?	In which aspects?
Cross-scale linkages	Are these legal regulations linked to the European level/EU legal regulations?	If national (Czech) policies are mentioned
	Do these legal regulations also exist in the Czech legislative environment/at the national level?	If EU policies are mentioned

Table 1: Interview guide for Czech interviewees

Based on the policies mentioned by the interviewees, a literature review was conducted to complement the findings and provide a deeper understanding of the existing policy landscape, including its practical implementation, identified policy gaps, and potential recommendations. This review included academic and grey literature, policy briefs, and articles. All relevant literature was coded using the MAXQDA software, applying a code system (Table 2) inspired by Cairney (2012), who categorizes public policies into a set of policy tools. Additionally, for the purpose of this policy review, we have included the following codes: mandatory and hygiene standards, strategies, supporting programs, policy gaps and recommendations, links to EU policies, links to EE countries/policies, transformative actors, best practices, and power inequality.

Table 2: Code system applied in the literature review, inspired by Cairney (2012). Edited with additional codes.

Code System
1. National level
Enabling policies
Public expenditure
Economic incentives
Economic penalties
Formal regulations/legislation
Mandatory standards
Hygiene standards
Voluntary regulations
Strategies
Providing services/resources to help change behaviour
Supporting programs
Disabling policies
Economic penalties
Formal regulations/legislation

Voluntary regulations
Policy gaps
Policy recommendations
Link to EU policies
Link to EE countries/policies
Transformative actors
Best practices
Power inequality
2. EU level
Enabling policies
Public expenditure
Economic incentives
Economic penalties
Formal regulations/legislation
Mandatory standards
Hygiene standards
Voluntary regulations
Providing services/resources to help change behaviour
Supporting programs
Disabling policies
Economic penalties
Formal regulations/legislation
Voluntary regulations
Policy gaps
Policy recommendations
Link to Czech policies
Best practices

6.2 Public procurement policies

Public procurement represents a powerful tool for promoting sustainable efforts in the public sector, utilizing public resources to purchase goods, works, and services. Procuring entities are considered to be public authorities, including the state, state organizational units, local government units, and entities established by the state or local government units (e.g. state-owned canteens, schools, hospitals, departments). According to the European Commission, around €2 trillion is spent on public procurement across the EU each year, illustrating the significant impact this tool has on shaping national markets and boosting economies when

implemented efficiently³. In Czechia specifically, the total annual amount of public procurement purchases is up to CZK 990 billion, according to the latest report from the Ministry of Regional Development, which corresponds to around 15% of Czechia's GDP (Ministry of Regional Development, 2023). Consequently, public procurement represents a crucial leverage in achieving transformative change toward sustainability (Kožmínová, 2025).

6.2.1 National public procurement policies

The most foundational policy related to food and food-related public procurement in Czechia is the **Food and Tobacco Products Law (No. 174/2021)**. Besides setting mandatory regulations for the health security of food products, the novelization of the original Act No. 110/1997 Coll. also introduced, among other things, the ban on “dual quality” of food products within the European Union countries, new legal regulations for official controls of food products, and new conditions for listing allergens on shelf labels. More importantly, it also amends the Public Procurement Act, allowing contractors to make the public procurement (tender) procedures more sustainable by conditioning suppliers to provide local and/or regional produce, thus supporting short supply chains, as well as opting for organic produce. This amendment was primarily incorporated to align Czech and EU legislation, specifically to transpose the latest amendment of the original EU Regulation No. 178/2002, which sets out the general principles and requirements of food law⁴.

The Czech **Act No. 134/2016 Coll. on Public Procurement** sets the basic principles of public procurement and reflects the new requirements mentioned above in a new amendment included in § 6 that the contracting authority “is obliged, provided that this is possible given the nature and purpose of the contract, to adhere to the principles of socially responsible procurement, environmentally responsible procurement, and innovation” (Public Procurement Act, 2016)⁵. How this gets operationalised is left open to interpretation of what is socially and environmentally responsible. Nevertheless, this is an enabling amendment, effective as of 2021, as it represents the first legal basis for a sustainable and socially beneficial public procurement procedure within the Czech legislative environment, as one of our respondents stated.

In 2024, the Ministry of Regional Development prepared the **National Public Procurement Strategy in the Czech Republic for the period of 2024-2028**, which represents the first-ever coherent strategy and provides a concise guideline for a public procurement process while highlighting the crucial role of public procurement authorities in taking advantage of their purchasing power to advance the priority areas within national politics and in shaping the market toward “offering high-quality, sustainable, safe, resilient, and innovative solutions so that their implementation fully harnesses the potential of society as a whole” (Ministry of Regional Development, 2024). The Strategy also emphasizes that public procurement in Czechia needs to reflect the commitments accepted within the Paris Agreement and, therefore, the principles in the European Green Deal. The alignment with the overall EU strategy to become a climate-neutral continent by 2050, thus, requires Member States' national financial flows to be allocated responsibly and sustainably.

Besides assessing the current state of public procurement and public expenditures, for example, less than 1% of the largest contracting authorities in Czechia to date have been guided by any environmental and social criteria (Ministry of Regional Development, 2023), the National Public Procurement Strategy also provides implementation measures to achieve the standard use of environmentally and socially responsible public procurement in appropriate

³ [Public procurement - Internal Market, Industry, Entrepreneurship and SMEs](#)

⁴ [Regulation - 178/2002 - EN - EUR-Lex](#)

⁵ [Úplné aktuální znění zákona o zadávání veřejných zakázek - Portál o veřejných zakázkách](#)

tenders. These include updated tools, methodological materials, examples of best practices, webinars, and other educational activities available to contractors, as well as the development of the Sustainable Procurement Action Plan, which encompasses the **Minimum Standards for Responsible Public Procurement**, providing guidance on the minimum level of compliance with the Public Procurement Act.

The database of proposed minimum standards, which were identified in two rounds in collaboration with relevant stakeholders, includes specific social and environmentally responsible targets and applies to the following selected deliverables:

- Supplies of office paper
- Food supplies
- Provision of physical security services for administrative buildings
- Provision of catering services
- Provision of cleaning services for administrative buildings
- Construction

Relevant food system and including food supply chain transformation-related standards include those related to food supplies and the provision of catering services, for which we provide a brief summary below.

Minimum standards for responsible public procurement for food supplies include the following:

- I. Minimum share of organically produced food (organic food): The contracting authority is required to purchase annually “at least 5% of the total value of its public contracts for food supplies”, which is aligned with the Action Plan of the Czech Republic for the Development of Organic Farming in 2021-2027.
- II. Minimum share of seasonal production of fruit, vegetables, or potatoes: From December to May, the contracting authority is required to purchase at least 20% and from June to November at least 50% of the financial volume of its public contracts for the supply of the above-mentioned produce.
- III. Fairtrade certified coffee and cocoa: Such purchases must be aligned with the requirements of the Fairtrade certification system.
- IV. Exclusion of eggs from cage systems: All eggs purchased from contracting authorities must be from cage-free systems in accordance with Commission Regulation (EU) No. 2023/2465.

Minimum standards for responsible public procurement to ensure catering services include the following:

- I. Minimum standards for food purchased as part of catering services: The contracting authority needs to comply with all minimum standards for food supplies stated above.
- II. More frequent inclusion of meals with a higher proportion of legumes, vegetables, fruit, whole grains, and nuts, while maintaining the necessary nutrient intake: Catering services are subjected to this condition within the procurement procedure. Furthermore, if the catering service offers more than one meal per day, there must always be at least one vegetarian or purely plant-based meal option available.
- III. Measures to reduce food waste and minimize waste: The tender procedure will be conditioned by the development of a Methodology for preventing food waste and minimizing waste for effective food loss and waste analysis, including its prevention.

The Minimum Standards of Responsible Public Procurement proposed by the Ministry of Regional Development are currently under an internal review process, and thus, no evaluation is available yet. After the comment settlement, the Standards are expected to be adopted by

the government in the form of a Government Resolution, which will be binding for the state administration and recommended for local government and municipalities.

6.2.2 Local public procurement policies

At the lower governance level, some regions and municipalities have been implementing the principles of environmentally and socially responsible public procurement for some time. The specific principles and conditions that regions or municipalities intend to support through public purchases are typically reflected in internal directives, often in the form of strategies. An illustrative best practice example is the town of Jičín, located in the Hradec Králové Region, which adopted the Responsible Consumption Strategy⁶ at the municipal level in June 2022. Annually, the town of Jičín spends nearly CZK 17 million on food for its school facilities, thereby setting a good example of responsible public spending. Besides awareness-raising and best practice sharing activities, this Strategy ensures that four elementary schools and five kindergartens are continuously supplied with locally grown, seasonal, organic produce, while supporting small local or social enterprises. Specifically, from January to May, the amount of seasonal produce is 15-20%, and from June to December, it rises by up to 30%. Regarding supporting local small enterprises, approximately 15-20% of the food supply is sourced from the region⁷.

Czech universities represent another entity concerned with environmentally and socially responsible public procurement, particularly the type of meals provided in their respective catering facilities. Consequently, many universities have internal strategies that ensure at least one plant-based or vegetarian meal option is available daily, particularly in response to active student pressure to make the universities more inclusive and environmentally friendly. For example, the largest university in Czechia, Charles University, states in its Sustainable Development Strategy that university canteens, buffets, and vending machines provide “varied and balanced food options” including meat-free meals, while also highlighting the University’s waste prevention approach⁸. Whereas Masaryk University, the second largest university, also emphasizes the role of sustainable procurement in the “orientation of its canteens towards local suppliers”⁹.

[Placeholder for the 2nd draft of the policy review: Public procurement policies at the EU level]

6.2.3 Public procurement policy evaluation

The literature review revealed a significant gap in the academic policy evaluation literature. To date, the majority of research related to this topic has been conducted in high-income Western countries, particularly the United States, Spain, and Canada, whereas the region of Central and Eastern Europe (CEE) remains underrepresented (Moramarco et al., 2025). Moreover, there were only a few relevant papers related to decentralization and public procurement policies, as well as their evaluation, in Czechia.

⁶ [Responsible dining: Jičín](#)

⁷ [NSVZ_PDP_JICIN_strategie_odpovedneho_stravovani_2025.cdr](#)

⁸ [Food Services - Sustainable Development](#)

⁹ [Catering | Sustainability at Masaryk University](#)

There is generally a wide consensus across Europe, including CEE countries, that sustainable public procurement plays a key role in decentralization efforts and the advancement of short supply chains (Vörösmarty et al., 2024). Additionally, applying green public procurement is particularly effective in food production, which accounts for nearly 70% of greenhouse gas emissions within the entire supply chain (Cerutti et al., 2016). Despite the benefits of applying the principles of sustainable and responsible public procurement, price remains the most prominent factor in public spending decisions in many European countries, including Czechia (Vörösmarty et al., 2024).

Although this recent legislative development is undoubtedly essential for Czech public procurement, many Western European countries have already made significant progress. For example, the share of organic (not necessarily local) food in public catering in Denmark is 60% (in Copenhagen, 90%); in Sweden, it is 25% (in Malmö, 100%); and in France, it is 50% (Kožmínová, 2025). Furthermore, Vienna has developed complex and holistic evaluation criteria for supplying its municipal care facilities with local vegetables, specifically evaluating suppliers' transport distance, whereas Rome conditions school canteen suppliers to provide fresh produce (no later than three days elapsed from harvest) (Dobrovodská & Moudrý, 2024). However, it should be noted that 'organic' doesn't necessarily mean 'local,' and 'local' doesn't by default imply that it is more sustainable than conventional produce. According to Enthoven & Van den Broeck (2021), the environmental impact of a food system always depends on the type of produce and the country in which it's produced, which should be reflected in the policy design processes.

Nevertheless, there are some policy gaps in the Czech Public Procurement Act and the National Public Procurement Strategy that should be addressed to leverage their full potential in promoting sustainable procurement in Czechia. For instance, the terms such as "local", "regional", and "short supply chain" used in the EU legislation are not precisely defined, which could be problematic (Vörösmarty et al., 2024). Dobrovodská & Moudrý (2024) recommend, e.g., applying the definition of a "short supply chain" that is formulated in Article 11 of Commission Regulation (EU) No. 807/2014 on support for rural development by the European Agricultural Fund for Rural Development as a supply chain that "includes at most one intermediary between the farmer and the consumer." Additionally, the basic principles of public procurement include the principles of "non-discrimination and equal treatment" toward all suppliers. This, however, applies primarily to large-scale public contracts, leaving more options for school canteens and educational facilities looking for local suppliers (Dobrovodská & Moudrý, 2024).

Another practical recommendation by Dobrovodská & Moudrý (2024) is to use indirect measures to increase the likelihood of small and micro local businesses succeeding in winning a public procurement contract, such as setting up a general training for potential suppliers, providing them with information brochures, and developing an updated database of local SMEs that can be used by contractors to set up a communication channel with small businesses, a practice frequently applied abroad (Vörösmarty et al., 2024). The above-mentioned barriers and recommendations resonate across various European countries that face similar issues hindering the full potential of sustainable procurement for food systems transformation (Parsons & Barling, 2022). Ensuring synergies with other policy instruments at national levels is one potential solution to help overcome these obstacles, according to Parsons & Barling (2022). Such an approach can be illustrated by Denmark's Organic Action Plan, which consisted of several policy actions: doubling the country's organic agricultural area, investing financial resources into, e.g., campaigns, educational activities, knowledge sharing, as well as high stakeholder involvement in public procurement policy development and implementation (Parsons & Barling, 2022; Spyridon & Mikkelsen, 2018; Walton & Hawkes, 2020).

6.2.4 Policies for decentralization and shortening of food supply chains

Based on the conducted interviews, the current state of structural support for sales associations, cooperatives, farm shops, and alternative food networks in general can be summarized as inadequate. Among other barriers, the interviewees emphasized the excessive administrative and financial burden associated with running a farm shop or sales associations. Furthermore, to avoid bankruptcy, there is often an existential need to find loopholes in the legislation, as revenues do not cover operating costs. In the subsections below, we provide an overview of the policies that impact decentralization and short supply chain efforts in Czechia.

6.2.5 National policies supporting decentralization and their evaluation

Both interviewees agreed that being formally recognized as an association helped them in establishing their respective enterprises. This entity is embedded within the **Czech Civil Code (Act No. 89/2012 Coll.)**¹⁰, which proved to be the most suitable choice for their type of business, as it serves as a sort of legislative loophole. For instance, standardized grocery shops must comply with more stringent hygiene standards than associations (e.g., having a sink in a store that distributes produce), which can be finance-, energy-, and time-intensive, especially for small enterprises with limited resources. However, frequent shop inspections are mandatory, and although necessary, the interviewees agreed that they tend to be more pro-state rather than pro-business oriented, making the owners' lives more difficult and the regulations "undemocratic." Besides the continuous emergence of new requirements, owners must be vigilant about another obstacle: most regulation-related information available is often very difficult to comprehend unless entrepreneurs have a legal education.

One of the interviewees stated that they had recently become an official profit-generating grocery store since they were no longer able to sustain the association solely on membership fees and voluntary labour. Their initial vision was to support local farmers by selling their produce at the shop to the association's members at no extra price margin. However, the business has become economically unstable over time, and the association eventually had to change its legal status. Since they now pay taxes and would have to raise their prices, making the goods unaffordable for most people, they found a loophole: the managers allow small local farmers to sell their surplus produce at the shop "unofficially" to their friends and acquaintances at a reasonable price. According to the interviewee, this is the only way these small farmers can sell anything. Regarding governmental financial support, there is a wide consensus on the insufficiency of subsidies, restrictive criteria, and administrative complexity—a combination of barriers that often leads to applicants' resignation. This claim is supported by Moudrý (2024), who highlights that small and family farms are most vulnerable to sustaining their business viability.

Several policy recommendations emerged from the interviews. First, it is crucial to lower taxes for small enterprises and reduce the administrative burden of establishing and running associations and local farm shops, which represent the major barriers for small entrepreneurs. Second, supporting short supply chains, specifically local farmers, requires pricing produce in conventional store chains adequately to reflect their production costs and the negative externalities associated with conventional, unsustainable food production. Third, there is a dire need for an infrastructure that enables the effective and systematic sale of regionally sourced produce. The recent developments surrounding the **Public Procurement Act** and the Minimum Standards of Responsible Public Procurement proposed by the Ministry of Regional

¹⁰ <http://obcanskyzakonik.justice.cz/images/pdf/Civil-Code.pdf>

Development (see above) are perceived as a promising step towards supply chain transformation, particularly in promoting local produce.

According to Moudrý (2024), other barriers that hinder the development of short supply chains on a larger scale and purchasing produce directly from farmers are, among others, the conformity of contractors and the perceived convenience of buying in bulk from a proven supplier, as well as insufficient flexibility in the delivery of goods by small farmers that are more limited, e.g., in terms of sudden weather changes, than their large agricultural counterparts. It is worth noting that one of the major obstacles that remains prevalent is the higher price of organic produce compared to conventionally produced food (Moudrý, 2024). These systemic barriers are further exacerbated by the sociocultural and historical specificities of Czechia, particularly in terms of the prevalence of large agricultural farms and conglomerates that dominate the national agricultural market as well as the post-socialist agricultural legacy (Zagata et al., 2019).

In response to this, the establishment of local food systems and alternative food networks is gaining importance in many European countries (Ayalp et al., 2025). However, as research by Pixová & Plank (2024) demonstrates, food system transformation in Czechia, specifically in the two largest cities—Prague and Brno—is insufficient due to a profound, non-systematic approach and fragmentation of urban food governance. Furthermore, the food policies outlined in the cities' strategies fall short, as they are not being implemented as originally planned (Pixová & Plank, 2024). For example, Prague's strategic plan, Circular Prague 2030, Strategy #brno2050, and their respective climate change adaptation strategies all underscore the essential role urban food governance plays in urban sustainability, along with circular economy, shortening supply chains, and promoting alternative food networks (e.g., community gardens and allotment gardening) (Pixová & Plank, 2024). Furthermore, supporting food cooperatives is explicitly mentioned in the Circular Prague 2030 strategic document (Magistrate of the Capital City of Prague, 2022); however, an approach outlining their systemic support is missing (Pixová & Plank, 2024). In this respect, further research is needed on policies that support the decentralization of food systems and supply chain transformation in the Central and Eastern European region.

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7 Promising policy options for supporting farmer-led environmental outcomes at landscape scale in England

7.1 Introduction

This policy review examines state efforts to encourage farmers in England to deliver coordinated environmental improvements at a landscape scale. Historically, government has pursued an individualised approach to agri-environment incentives. However, past agri-environment schemes (AES) have a poor environmental record, receiving widespread criticism in scientific and policy circles alike for their failure to address the environmental degradation wrought by the corporate intensified farming (Riley et al., 2018). In response, a more cohesive, joined-up approach to delivering conservation on private land has gained ground over the last decade, emerging as a key discursive frame to realise ambitious national targets set out in England's 25 Year Environment Plan (Adams et al., 2014; Defra, 2018). Yet in practice, landscape-level approaches to conservation are highly contested. Competing pressures on rural land - from food production and outdoor recreation to flood mitigation and renewable energy - pose a challenge to policymakers charged with the task of addressing trade-offs between economic, social, and environmental goals (IPBES, 2024; Cairns & Krzywoszynska, 2016). In England, central government administers public funds and regulates the development of the natural environment, yet it lacks detailed information on local ecological conditions and on how best to incentivise landholders to improve biodiversity on private holdings in the long-term. As proposed by Ian Hodge (2024), devolving rural land-use decisions to local environmental organisations already involved in nature conservation holds significant potential to better identify and act upon the environmental priorities of stakeholders in a defined context while remaining consistent with national objectives.

One of the ideas for achieving better linked-up collective action for landscape-level conservation is through strengthening farmers' willingness and capacities to work together for this purpose. Building on earlier TRANSPATH research exploring the challenges and implications of existing experiments in devolved environmental decision-making in rural East Anglia, this review examines the existing literature on England's Countryside Stewardship Facilitation Fund (CSFF, hereafter the Facilitation Fund). The scheme funds facilitators to bring together land managers within defined catchments to protect and enhance local biodiversity, and is positioned as a key policy tool for realising the government's legally binding environmental targets introduced under the Environment Act 2021 - notably those requiring the creation or restoration of 500,000 hectares of wildlife-rich habitat and halting the decline in species abundance by 2030 (Defra, 2021; Mondair et al., 2025).

Importantly, following the final application round in January 2024, the government announced that the Facilitation Fund had closed to new applications, leaving the future of the scheme - and of many of the groups it created - uncertain. Given increasing academic interest in scaling the model across Europe beyond countries with existing collaborative traditions like the Netherlands (Westerink et al., 2017; Nichols et al., 2025), this marks an opportune time to review an early national experiment in state funded farmer collaboration and to explore the potential lessons it holds for EU rural development policy. As highlighted by the Horizon project FRAMEwork, European agricultural policy could benefit from adopting elements of a CSFF-style approach to conservation, especially in light of the new Nature Restoration Regulation, which calls on Member States to improve the grassland butterfly index, soil organic carbon stocks, and high-diversity landscape features within farmed environments by 2030 (Council of the European Union & European Parliament, 2024). Moreover, the IPBES Nexus Assessment (2024) identifies integrated landscape approaches as a key response option capable of delivering synergies across biodiversity, water, food and climate, making the Facilitation Fund a useful test case of how such ideas are translated into practice.

In the following sections, our aim is threefold. First, we situate the Facilitation Fund within the emergence of ‘landscape-scale conservation’ as a discursive frame for enacting England’s post-Brexit agricultural transition. Second, we outline the means and objectives of the scheme and review the wider scientific and grey literature on the Fund to highlight key insights relevant to similar policy interventions seeking to promote farmer collaboration and collective agri-environmental land management. Third, we explore research into farmer participation in collective schemes, as well as the role of social and political trust in sustaining collective environmental action.

7.2 The Facilitation Fund

7.2.1 History

In England, the policy frame of landscape-scale conservation took shape in the 1980s, in response to the increasingly clear environmental costs of post-war agricultural intensification. Re-positioning private farmland as a potential site and object of conservation, it signalled a broader shift in the public role of agriculture: no longer framed solely around the job of food production, farming was increasingly tasked with maintaining ‘healthy’ rural landscapes and delivering environmental improvements, such as clean rivers and species-rich habitats, for public benefit (Adams et al., 2014). Subsidies became the principal lever through which the state sought to steer farmers’ land-use decisions. Under the Common Agricultural Policy (CAP), payments initially designed to entreat farmers to pursue higher yields were gradually reorientated towards the widespread adoption of agri-environmental ‘greening’ measures - what in the English context is widely known as ‘public money for public goods’ (Cusworth, 2020; (Bateman and Balmford, 2018). Yet, the change in approach failed to sufficiently address habitat loss and ecological fragmentation, highlighting the limits of individualised agri-environment incentives to deliver at the necessary speed and scale (Hodge, 2001).

These shortcomings spurred new interest in ‘ecological networks’, drawing on decades of research emphasising the importance of habitat connectivity (Crooks and Sanjayan, 2006; Bennett and Saunders, 2010), and a growing recognition that the delivery of ecosystem services worked best across contiguous land holdings (Adams, Hodge and Sandbrook, 2014). The Lawton Report, *Making Space for Nature* (2010) encapsulated this turn, calling for conservation that was ‘bigger, better and joined’, and highlighting the potential of collaborative, coordinated action by land managers. Piloted through government initiatives such as Nature Improvement Areas (NIAs), and reinforced by grassroots experiments of ‘farmer clusters’, Lawton et al.’s recommendations have since become a guidepost for the UK’s Department for Environment, Food and Rural Affairs’ (Defra) stated vision for the future of farming (Defra, 2018).

7.3 Features of the Fund

The Facilitation Fund was launched in 2015 with the dual aim to foster farmer collaboration and to secure more effective environmental outcomes at landscape scale (Prager, 2022). The design built on the earlier pilots of NIAs and farmer clusters and was devised as a support scheme for funding farmer group facilitation (see Table 1). Funded through the Rural Development Programme for England, the scheme encompasses a wide variety of landscapes - from the mosaic of smaller farms in the uplands, to the vast, flat arable holdings of East Anglia - aiming to embed collaborative approaches across the country’s farming systems. The Fund has run 8 application rounds, allocating £2.5 million to each. 220 groups were created in total, with around 100 still funded – all of which are set to expire by mid-2027 at the latest. Collectively, these groups bring together more than 6000 members, distributed

across England, and - together with self-funded farmer clusters - have covered approximately 450,000 hectares of farmland (Mondair et al., 2025; see Fig 1).



Figure 1. CSFF groups funded between 2015 - 2023.

Table 1. Common governance features of Facilitation Fund groups (adapted from Prager, 2022).

Arrangement	Details
Application	Submitted by facilitator (independent, consultant or organisation)
Eligibility	Group of farmers willing to collaboratively undertake new activities together across their land holdings
Duration	3-5 years
Group size and scale	Minimum 4 farmers, managing an area of 2000 hectares as a group. Holdings need not be contiguous, but farmers should be within a distinct geographic area
Funding available	£500 per holding, and up to £10,000 for costs for funding facilitation. Membership is capped at 80 farms
Incentive component	Participating farmers receive a 20% uplift when their individual Countryside Stewardship agreements are scored

In practice, a Facilitation Fund group typically consists of a cluster of neighbouring farmers brought together by a facilitator who coordinates joint environmental activities across a defined landscape. The facilitator, who may be a farmer themselves, a member of a wildlife organisation or a farm advisor, submits the group's application to Defra and manages its day-to-day delivery. These clusters range in size, structure and ambition: from informal groupings of as few as four neighbouring farms to legally recognised entities of 80 landholders partnering to deliver nature-based solutions at scale. Groups are funded for either three and five years (depending on their application round), during which time members meet regularly to share knowledge, plan activities, and align their individual agri-environment scheme agreements with collective priorities such as pond restoration, hedgerow management or soil health improvement. Each participating farm receives a modest payment uplift within its own Countryside Stewardship agreement. Although membership is voluntary and geographically bounded, many groups have developed formal governance structures to strengthen their ability to function as collectives - electing steering committees or developing annual workplans to sustain participation and ensure continued agreement around locally defined environmental goals.

7.3.1 Evaluation of the Fund as a policy instrument

Both policy and academic evaluations of the Facilitation Fund present a broadly positive picture (Franks, 2019; Breyer et al., 2021; Prager, 2022; Mondair et al., 2025; Nichols et al., 2025). Reported strengths of the fund span both social and ecological goals, including creating strong support networks for participating farmers, offering learning opportunities ways to improve soil health and initiating collaborative action on activities as diverse as pond restoration, hedgerow management, and natural flood mitigation (Mondair et al., 2025). Reported activities echo the IPBES Nexus assessment's inventory of highly synergistic response options, which include restoring soil health, implementing nature-based solutions and widening the adoption of more sustainable agricultural practices to support agrobiodiversity (IPBES, 2024).

The fund was, however, undermined by design flaws that hold important lessons for initiatives seeking to build upon Defra's example elsewhere. Burdensome reporting diverted facilitators' time away from farmer engagement, while delayed reimbursements from the Rural Payments Agency (RPA) forced some to carry £8-9,000 in costs, creating significant financial exposure for facilitators who were forced to bankroll the group between payments to sustain momentum (Mondair et al., 2025). Perhaps the most important insight for future collaborative initiatives was that five-year funding cycles proved far more effective than the later three-year agreements (Prager, 2022). Funding cycles must allow sufficient time to establish trust – both between the facilitator and group, and among farmers themselves. As current reporting requirements already constrain the time facilitators can spend engaging with their group, allocating an appropriate timeline is important to ensure money is well spent (Prager, 2022).

Currently, the Facilitation Fund is closed to new applications, pending a vague announcement that an evolved version of the fund will be announced in the future. While existing agreements - running until December 2027 at the latest - will be honoured, the decision to end future funding without identifying an alternative source of group support raises questions about the longevity of facilitation groups once agreements expire, especially if groups lose access to their facilitators in the process. To properly assess the success of the fund, and thus its suitability as a model to be emulated elsewhere, more research is needed into the longevity and future actions of enrolled groups. As Adams et al. (2016: 6) attest, 'ultimately, the success of large-scale conservation depends on finding institutional strategies that secure long-term conservation outcomes, thus ensuring that conservation gains are not reversed when money runs out, private owners change priorities, or land changes hands.'

To explore the longer-term potential of collaborative initiatives like the Facilitation Fund and highlight useful learnings from the wider literature on farmer collective action, the following section reviews evidence from grey and peer-reviewed literature explaining farmer participation and unpacks the role of trust in sustaining state-directed collective action networks.

7.4 Conceptualising farmer participation in collaborative environmental initiatives

7.4.1 Economic & social factors

Agri-environmental collaboration is often promoted first and foremost as a way to achieve conservation outcomes at a scale beyond individual farms, yet recent evaluations of farmers' participation in collaborative agri-environmental initiatives highlight a disjuncture between stated ambitions of public policy initiatives and farmers' motivations for taking part. For example, few participants in current facilitation funded groups cite environmental improvement as their primary reason for joining (Prager, 2022), echoing the broader literature investigating the determinants of farmers' adoption of funded agri-environmental management practices (Brown et al., 2021). As argued by Kam (2024), farmers' diverse motivations for engaging (or not) in collaborative initiatives suggest scope for policy to better target initiatives within the preferences and experiences of intended beneficiaries.

The existing literature suggests farmers' primary reason for engaging with collaborative agri-environmental initiatives is economic (Prager, 2022; Kam, 2024). Adequate remuneration for undertaking environmental improvement is vital for viable farm businesses and research has long demonstrated a positive correlation between finance and willingness to participate in individual AES schemes (Ruto and Garrod, 2009; Brown et al., 2021). In the farm cluster context, groups offer a (perceived) opportunity to access funding streams that would not otherwise be available to individual farmers. For example, in England farmers are increasingly motivated to join Facilitation Fund groups to learn more about private and alternative collective financing opportunities. A key implication to navigate here is that tying agri-environment funding to farmer collaboration is a 'double edged sword': it renders collaboration both possible

and fragile, as group activities can stop once funding is withdrawn if the collective cannot secure alternative financing arrangements (Prager, 2022: 9).

Beyond the perceived financial benefit of joining a collaborative agri-environmental initiative, many farmers are also motivated by opportunities to meet with neighbours and learn new skills from peers (Prager, 2022; Kam, 2024; Nichols, 2025). In a sector marked by long working hours, high demands, and widespread rural isolation, where the decline of rural infrastructure has reduced opportunities for social interaction (Wheeler et al., 2023), collaborative groups offer an opportunity for farmers to meet in-person and discuss their work. Moreover, it is well established in the literature that peer-to-peer learning is the preferred model for farming advice (Sutherland and Marchand, 2021). Joining a group provides access to advice, practical tips, and the chance to compare practices with neighbours. Once on board, evidence also suggests that visible achievements - such as water monitoring or sharing evidence of restored ponds - reinforce member commitment by demonstrating the group can move beyond being 'a talking shop' and deliver tangible impacts on farms and the environment (Kam, 2024).

7.5 The role of preferences, experience and trust

A thorough understanding of farmers' preferences for collaboration and collective action must be at the heart of any efforts to bolster coordinated environmental improvement. Existing research suggests it is particularly important to secure farmer buy-in to collaborative environmental decision making by ensuring members feel their voices are heard and acted upon (Prager, 2022). Yet what a 'farmer-led' initiative could or should look like in practice varies. For some, it implies that farmers should determine the aims and practices of collaboration; for others, it simply signals farmer involvement in agendas that may be externally defined. In a recent study, Kam (2024: 6) identifies five distinct perspectives among English farmers on the value and trade-offs involved in collaboration, ranging from those who view collective work as essential for addressing environmental challenges to those who see it as worthwhile only when it supports farm business viability. A key finding was that many full-time, commercial farmers rejected the idea of environmentally oriented collaboration as an end in itself, instead framing it as acceptable only insofar as it sustained the overall sustainability of their business.

Farmers' preferences for collaboration are also informed by past experiences. Indeed, it is well established in the literature on AES uptake that farmers who have positive experience of collaboration are more likely to join another scheme (Mills et al., 2021). The other side of that coin is resistance towards undertaking state-directed collective agri-environmental measures on account of past experience with poor scheme design, burdensome time or administrative requirements or negative implications for business viability, rather than a cultural resistance to environmental protection or collaboration per se (Prager, 2022; Burton, 2021). Ultimately, the decision of whether or not to participate is 'temporally layered', rooted in past farming histories, present needs and future aspirations (Riley et al., 2018: 636). Thus, ensuring ways to understand and recognise the diversity of farmer orientations within the design of specific initiatives, as well as the structural pressures and historical experiences that underpin them, is essential if landscape-scale governance is to be both socially legitimate and environmentally effective.

Trust is often described as the foundation of cooperation in modern societies and plays a large role in whether farmers think it worth their while to collaborate (Luhman, 1979; de Vries et al., 2019). By centring farmers' capacities and willingness to collaborate, the Facilitation Fund draws on this logic, offering support to incentivise joint work as a means to deliver environmental improvements at landscape scale. Existing research on trust in cooperative agri-environmental initiatives distinguishes between horizontal (trust in facilitators and fellow farmers) and vertical trust (trust in institutions and governors), the latter including whether

commitments to reward environmental stewardship are seen as credible or legitimate (de Vries et al., 2019). In both cases, trust is a choice, made under varying conditions of risk and uncertainty where outcomes lie beyond the trustor's control (Rousseau et al., 1998; (Weipert-Fenner et al., 2024). Yet whether either form can be established in collaborative agri-environmental initiatives with minimal obligations - and how - remains underexplored.

The existing literature on collaborative agri-environmental action foregrounds horizontal trust - among farmers and between farmers and facilitators - as central to cooperation and outcomes (de Vries et al., 2019; Riley, 2018; Westerink, 2020; Prager, 2022; Kam, 2024; Nichols, 2025). Yet little is known about when, why, and how trust becomes decisive. For example, the Facilitation Fund is designed to foster networks capable of persisting beyond state support by leveraging 'alternative funding streams' (Mondair et al., 2025: 3). But the stakes in facilitation-funded collaboration are low: membership carries no binding obligations, and farmers risk little more than their time and energy. In such circumstances, the determining role played by trust is hard to assess. By contrast, newer financing models such as biodiversity net gain agreements impose much higher stakes, requiring farmers to form collective legal entities, redistribute funds, and commit to long-term land use change (Green Finance Institute, 2025).

Government initiatives to steer farmers actions in line with state ambitions do not exist in a vacuum; they are entangled with wider national politics as farmers' perceptions of their legitimacy impact participation (Kovács et al., 2021). In this sense, vertical trust in institutions plays a key role in any state-led efforts to encourage farmers to deliver coordinated environmental improvements at a landscape scale. Recent widespread farmer protests in England demonstrate this relation. Changes to inheritance tax, alongside anger at the abrupt closure of the Sustainable Farming Incentive (the government's flagship scheme to encourage more environmentally oriented land management) to new applications have added to an already poor confidence in the government's ability to deliver a better future for the industry. For example, in the English agricultural sector, there is widespread mistrust of the government vision for farming, and its own ability to deliver it in a time of deepening austerity measures. 72% of farmers are not confident that changes to schemes and regulations will lead to a successful future (Defra, 2025).

Dwindling government trust has wide-ranging policy consequences for state-led initiatives. Studies consistently show that participation can be undermined not by the design of collaborative arrangements themselves, but by the perceived legitimacy of the government funding that sustains them (Prager, 2022). Moreover, as the English case highlights, questions of trust and legitimacy mediate whether devolved, integrated landscape governance can embody the inclusive, context-sensitive and multi-actor ethos that IPBES identifies as essential to nexus approaches - both in terms of whose voice is included, and how attractive such collaborative arrangements are to those expected to participate (IPBES, 2024).

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8 Promising policy options for finance and trade policies (from WP4)

[Empty this version.]

9 Exploring policies for strengthening human-nature connectedness

The Transformative Change Assessment in 2024 identified the disconnect between humans and nature as one of the underlying causes of biodiversity loss – and thus as something that needs to be addressed in efforts to bring about transformative change (IPBES 2024) but the concept is quite unexplored. The question we will explore in this section is how public policy can support human-nature connectedness, which there is very limited knowledge about (Lengieza et al 2023; Ives et al, 2018; Richers et al, 2020). We will make a review of the approaches to human-nature connectedness in core EU policies such as the EU Biodiversity Strategy for 2030 and the EU Nature Restoration Law (entered into force in 2024), the EU Birds Directive, and the EU Habitats Directive. An overall analysis of the attitude of the EU regarding human-nature connectedness is unclear (Lammers, 2024) and having a better

understanding of this provides a foundation for suggesting areas where EU policy could be innovatively used to strengthen human-nature connectedness.

[this analysis will be carried out in the coming months and included in the next version of the policy review]

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10 Policy principles and directions for the TRANSPATHs' transformative pathways

Empty this version. Once the project's 'joint' pathways have been developed in the coming months we will compare what these would 'require' in terms of policies and policy principles across levels and compare these with the overview of existing global and EU policy goals (see D.1.2) and based on this discuss implications for realising TRANSPATH's transformative pathways.