



REFOREST

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Discussion Policy Paper #2

Market Integration, Value Chains and Demand Pathways for Agroforestry

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1. MOTIVATION/CHALLENGE

Agroforestry (AF) becomes economically viable when farmers are able to capture added value through short and integrated food supply chains. This includes, for example, direct sales, community-supported models, partnerships with local restaurants/supermarkets, and on-farm processing. Its economic potential increases further when income is diversified through tourism and educational activities, energy self-sufficiency, and carbon or nature credit payments. Strong branding, targeted marketing, and access to premium markets are also essential for long-term financial sustainability.

AF adoption is often driven by farmers' environmental awareness and cooperation with researchers, advisory networks, or AF associations. However, sooner or later, farmers are confronted with the harsh market reality. AF products must compete with conventional ones that are cheaper and more widely distributed, and the added value generated along the chain does not always remain with producers, as intermediaries, transaction costs and weak bargaining power can erode farm-level returns.

European sustainable agricultural policies tend to focus on land-based payments, certification requirements, and environmental compliance, while paying less attention to value-chain development, processing capacity, marketing, and market integration.

This policy discussion paper argues that AF is not a “standalone” model. It is a farm development pathway that requires viable market channels, credible demand signals, sustained advisory, practical business planning, and peer-learning capacity to manage diversified systems over time.

This policy discussion paper¹³ examines the market and value-chain conditions required to scale AF within EU policy frameworks. It draws on findings from the ReForest project and complementary external literature to identify the financial, institutional, and methodological constraints that limit the economic uptake of agroforestry, and to clarify the conditions required for AF to function as a viable farm strategy in the post-2027 CAP context.

2. REFOREST EVIDENCE

Findings from ReForest *Deliverable D3.2*, based on qualitative case studies and Living Lab analysis across participating countries, indicate recurring patterns in AF value-chain performance. While not statistically representative of the EU, the assessment still identifies consistent structural constraints and opportunities (Hassler & Schmitt, 2025), which can be illustrated by the following statements:

- “The farms should not be centered around agroforestry; agroforestry should be centered around the farm’s needs.”

¹³ As part of the ReForest Policy Discussion series, it aims to support dialogue with panellists, gather targeted input, and help refine priorities ahead of the final Policy Briefs to be released in June.

- “Agroforestry is not a separate form of agriculture like conventional, integrated, or organic farming; it improves the respective form.”

Across ReForest Living Labs, it is clear how AF viability is correlated to market access and diversification. Farms operating through short food supply chains retain a larger share of added value, as these channels allow producers to price quality, origin, and transparency while reducing intermediary margins.

Economic viability often depends on revenue stacking, meaning that these farmers combine AF production with processing activities such as jam or juice making, agritourism, educational services, renewable energy, or ecosystem service payments. Findings also show how diversification strengthens resilience and spreads risk but increases management demands.

Further evidence from the ReForest milestone *M36 “New AF Value Chain Development”* examined value-chain dynamics at three levels: product, farm, and production system. Workshops explored the development of new AF products, including charcoal; while surveys and case studies analysed value-chain organisation among producers from the Czech, Hungarian, and Bulgarian Living Labs using a Multi-Level Perspective approach. A broader assessment of 26 farms across different production types identified common patterns in value-chain structures and business strategies.

The analysis shows that new AF products often attract strong consumer interest, especially when marketed directly from farms. However, scaling production and entering larger markets remains difficult due to regulatory requirements and supply-chain constraints. Successful farms often rely on distinctive products, strong local identity, and relatively short processing and marketing chains.

The case studies also suggest that public subsidies were not always the main driver of AF adoption. Many producers had already established viable farm businesses before integrating trees into their systems. Cooperation with researchers, agroforestry associations, and peer networks often played an important role in knowledge exchange and innovation. At the same time, AF farms benefit from broader CAP instruments such as direct payments, organic farming schemes, animal welfare payments, and investment support for machinery and infrastructure.

Despite this potential and opportunities, ReForest case studies show how the following structural constraints continue to limit value-chain development:

Delayed returns and establishment risk	Tree-based revenues mature slowly, while upfront costs for planting, protection, and system redesign occur. This temporal mismatch increases financial exposure during the early years of transition.
Labor and skills constraints	AF requires specialised expertise in tree management, harvesting, processing, and marketing. Limited availability of skilled labour restricts expansion and increases operational complexity.

Processing and logistics gaps	Diversified outputs require storage, cooling, packaging, and small-scale processing infrastructure that often exceeds individual farm capacity. Seasonal harvest peaks without adequate storage or processing capacity push producers into lower-margin outlets.
Market access barriers	AF products frequently diverge from mainstream supply chain requirements in terms of volume, standardisation, or aesthetics. This limits integration into conventional distribution channels.
Fragmented support measures	Establishment support, value-chain instruments, ecosystem service payments, and advisory services are often administered separately. This fragmentation increases administrative burden, transaction costs, and coordination challenges.
Underdeveloped ecosystem service markets	Carbon and biodiversity schemes offer additional income opportunities. However, MRV (Monitoring, Reporting, and Verification) complexity, high transaction costs, and limited alignment with CAP instruments and supply chain contracts constrain participation.
Recognition and certification gaps	Although consumer demand for local, transparent, and ethical production is growing, AF remains poorly recognised. Many farms rely on informal storytelling rather than structured certification or labelling systems capable of capturing price premiums.

Table 3: Structural Constraints Limiting Value-Chain Development in ReForest Case Studies. Source: Authors' elaboration.

3. LITERATURE REVIEW / POLICY DEVELOPMENT

The FAO framework on sustainable food value chains highlights competitiveness, environmental integrity, social benefits, and governance as interconnected dimensions that require coordination across actors from production to consumption (FAO, 2014). Value creation, therefore, depends not only on primary production but also on how value chains are organised, governed, and upgraded.

In this context, research on agroforestry adoption shows that farm practices alone do not determine whether systems scale. Consistent with ReForest evidence, literature highlights the importance of institutional arrangements, land tenure, market organisation, consumer demand, and mechanisms that reward ecosystem services.

Land tenure security is crucial for long-term AF investment. Tree-based systems require several years before financial returns appear. The FAO identifies tenure security as a key factor influencing farmers' willingness to plant and manage trees (FAO, 2019). The basic rationale is that when farmers hold secure rights of use and control over land, they are more likely to invest in long-term practices, whereas short-term rental contracts or uncertain land rights tend to discourage these investments. At the same time, empirical work shows that the relationship between tenure security and sustainable land management is context-dependent by local institutions, norms and perceptions, with different dimensions of tenure security (legal, de facto and perceived) shaping investment decisions in distinct ways (Asaaga et al., 2020; Benjamin et al., 2021; Leonhardt et al., 2021).

Beyond tenure conditions, value chain organisation is another important factor shaping agroforestry viability. In AF systems, value often comes from differentiated products, ecosystem services, and closer relationships with consumers. This means that how products and services move through the chain (how they are processed, combined, certified, and marketed) strongly influences whether AF becomes economically viable. Evidence from European sustainability assessments shows that AF systems tend to perform well on environmental and social dimensions, but that financial outcomes depend heavily on coordination among multiple actors in the chain, including processors, retailers, and public institutions (Smith et al., 2022; Allali et al., 2024).

Consumer demand is another important dimension that is often overlooked when discussing market opportunities for AF products. Research on European food systems shows growing interest in products associated with environmental sustainability, transparent production, and local origin (Santeramo et al., 2018). Clear communication of these attributes can influence consumer preferences, but trust in sustainability claims remains critical. Consumers who perceive labels as credible are more likely to purchase environmentally friendly products, whereas scepticism toward certification and concerns about greenwashing can weaken market responses (Wang et al., 2020). Evidence from European markets also points to a “green premium puzzle,” where environmentally friendly products do not always command higher prices and may even face a price penalty.

Studies on alternative food networks and short food supply chains support this view. These networks are typically characterised by local production, few intermediaries, and strong spatial and social proximity, which allows producers to capture a larger share of added value and to reposition themselves as price-makers rather than price-takers (Cleveland et al., 2015; Corsi et al., 2018; Gori and Castellini, 2023; Lankauskienė et al., 2022).

Recent EU policy debates reflect many of these challenges. The *European Commission’s Vision for Agriculture and Food* calls for an agri-food sector that ensures a fair standard of living for farmers by improving their position in the food chain, creating new income opportunities and properly rewarding ecosystem services, while aligning competitiveness with environmental sustainability (European Commission, 2025). These priorities are directly relevant to agroforestry, where the provision of public goods such as carbon sequestration, biodiversity and landscape amenities often exceeds what is remunerated through conventional commodity markets.

Certification and traceability mechanisms play an important role in addressing this gap. Research from DigitAF confirms that agroforestry products rarely compete on prices alone. Certification, branding, and traceability systems are critical for communicating biodiversity enhancement, animal welfare, carbon storage, and rural value creation (DigitAF, 2024a; DigitAF, 2024b). However, certification schemes introduce additional costs and administrative requirements and therefore require careful design to balance credibility with accessibility for small and medium-sized farms.

4. CAP POST-2027 IMPLICATIONS

The ongoing reform of the Common Agricultural Policy (CAP) for the 2028–2034 programming

period provides an opportunity to reconsider how agroforestry (AF) is supported, moving beyond isolated establishment measures.

4.1 RISKS

Proposed greater flexibility for Member States in designing agricultural interventions may influence how supply-chain development and market integration are addressed in national policies. While this flexibility allows investments to reflect national agricultural structures and regional conditions, it may also lead to differences across Member States in how value-chain development and processing capacity are supported. Such variation could affect the conditions under which AF products compete within the EU market.

In addition, integrating agricultural policy into broader National and Regional Partnership Plans (NRPPs) creates a new institutional setting in which agricultural investments compete with other public spending priorities, such as infrastructure, innovation, and regional development. While this could create opportunities to finance supply-chain infrastructure, there is also a risk that agricultural value-chain development receives less targeted attention.

4.2 POLICY OPPORTUNITIES

Aggregation and shared infrastructure are relevant for a value-chain organisation. Promoting cooperative processing facilities, storage hubs, and producer organisations can help farmers manage volumes, organise logistics, and reach buyers. Supporting these kinds of cooperative structures could therefore strengthen agroforestry value chains and improve market access, especially for smaller or diversified farms.

Demand-side mechanisms influence market opportunities for agroforestry products. Public procurement, recognition systems, and certification frameworks shape how environmental attributes are communicated and valued in supply chains. Where environmental performance is recognised in supply contracts, agroforestry products may reach broader markets rather than remaining confined to niche segments.

Ecosystem-service markets represent another emerging dimension of agroforestry value chains. Carbon and biodiversity credit schemes are gradually emerging as complementary market mechanisms that reward environmental performance. With appropriate policy support, these markets could enable AF systems to capture value from the ecosystem services they generate.

Public procurement represents one of the largest untapped opportunities for agroforestry value chains. Schools, hospitals, universities, public canteens, and other publicly funded food services purchase substantial volumes of agricultural products and can help create stable demand for food that supports biodiversity, climate adaptation, local sourcing, and sustainable land management.

Beyond public procurement, new forms of market demand are emerging through sustainability requirements within private supply chains. Companies are increasingly expected to demonstrate environmental performance, supply-chain resilience and progress towards climate and biodiversity objectives. This is reflected in developments such as the Corporate Sustainability Reporting Directive (CSRD), Scope 3 emissions reporting, climate transition plans, and emerging nature-related disclosure frameworks.

These developments may create new incentives for sourcing from production systems capable of delivering measurable environmental outcomes. Agroforestry systems can potentially respond to this demand by providing evidence of carbon sequestration, biodiversity enhancement, water resilience and landscape restoration.

5. KEY QUESTIONS FOR THE POST-2027 CAP

The evidence above shows that agroforestry market integration depends on more than farm-level production. It requires demand creation, aggregation, processing capacity, credible certification and stronger links with public and corporate buyers. The questions below identify the main issues to be tested through the ReForest Policy Dialogues and reflected in the final Policy Briefs.

Building stable market demand and value capture

- How can EU and national policies support AF product integration into value chains and consumer markets while ensuring fair and stable returns for farmers?
- What should an “agroforestry label” certify: practices, thresholds, biodiversity, carbon, social value, and should it be tiered?
- How can certification avoid excluding small/medium farms (audit burden, documentation, MRV cost) while remaining credible for buyers and investors?
- What is the right balance between voluntary storytelling and formal certification in communicating AF value?

Food systems, procurement and future demand

- How can agroforestry contribute to food security, climate resilience and regional bioeconomy strategies beyond the farm level?
 - What role can public procurement in schools, hospitals, universities and public catering play in creating stable demand for agroforestry products?
1. Should public procurement frameworks explicitly recognise biodiversity, ecosystem services and climate adaptation benefits associated with agroforestry systems?
- How can agroforestry producers respond to emerging demand linked to CSRD implementation, Scope 3 emissions accounting and nature-related disclosures?
 - What role should agroforestry labels, biodiversity-positive products and nature-positive value chains play in future market development?
 - Can certification systems remain credible for buyers and investors without creating high costs and administrative burdens for producers?

Reducing transaction costs through aggregation and shared infrastructure

- How can policies support aggregation models (cooperatives, producer organisations, hubs) that reduce transaction costs and help farms reach consistent volumes?
- How can small farms access processing while meeting food safety rules (shared facilities, hubs, mobile processing, micro-volume arrangements)?
- Which business model pathways appear most robust across contexts (direct sales, CSA, farm shops, restaurants, processors, diversified services), and what policy conditions help them scale?

6. APPENDIX 1: REFERENCES AND RELATED DOCUMENTS

ID	Reference or Related Document	Source or Link/Location
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10	FAO. (2014). Developing sustainable food value chains: Guiding principles. Rome: Food and Agriculture Organization of the United Nations.	Developing sustainable food value chains - Guiding principles
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