

Issue 26

May 30, 2025

NEWSLETTER

Smart & Net-Zero Project

The Smart Net-Zero (SNZ) project team under the Food and Fertilizer Technology Center (FFTC) for the Asian and Pacific Region regularly collects and shares information related to sustainable agrifood systems and climate-smart agriculture, including research, news, policy, data and event updates around the world on the project website.

Overview

Scaling Up Climate-Smart Agroforestry: Practices, Progress, and Pathways

Growing pressure on land and worsening soil degradation highlights the urgent need to restore ecosystems and enhance agricultural productivity. **Climate-smart agroforestry (CSAF)**— which combines trees, crops, or livestock—offers a sustainable solution, boosting resilience and sequestering 25–30% more soil carbon than conventional farming. Yet, adoption remains low, especially among smallholders, due to persistent economic and institutional barriers.

This issue's **Research** explores the potential of CSAF through a global review and case studies. The review identifies key practices—such as tree–crop–livestock integration and adaptive soil and canopy management—while noting gaps in localized data and monitoring. Meta-analyses from China and India confirm that CSAF can significantly increase soil carbon stocks, shaped by system type, land use history, and climate. A Himalayan study shows mulberry-based systems with canopy management can reduce erosion, improve soil health, and boost productivity. A global study underscores agroforestry's role as a natural climate solution (AF-NCS) and calls for investment in better measurement and monitoring tools to scale impact.

News showcases global efforts to advance agroforestry—from Nestlé's CO₂ reduction plan to community-led resilience in the Solomon Islands—while addressing challenges like U.S. funding freezes and ESG shifts in Taiwan. **Policy** presents national CSAF strategies from the U.K. and Gambia, and **Open Data** highlights tools that support planning, knowledge-sharing, and broader adoption of climate-smart agroforestry.

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RESEARCH

01 THEME: Carbon Sequestration; Policy Incentives, Financing, Pricing

Climate-smart agroforestry systems and practices: A systematic review of what works, what doesn't work, and why

May, 2023 | Forest Policy and Economics | [Source](#) |

Introduction: Climate-smart agroforestry (CSAF) practices offer integrated solutions to climate change, food security, and environmental degradation, but significant knowledge gaps remain concerning smallholder adaptation and related socioeconomic outcomes. Researchers from Sokoine University of Agriculture in Tanzania and the International Livestock Research Institute (ILRI) in Kenya systematically reviewed 78 articles to identify successful CSAF innovations, key challenges to adoption, and potential opportunities.

Key findings:

What Works and Why:

- **Integrating trees with crops and livestock improves productivity and sustainability** by enhancing soil health, water retention, and biodiversity.
- **Using high-yielding hybrids like F1 coffee cultivars increases yields and stability**, making CSAF systems more productive across diverse environments.
- **Employing practices like pruning and mulching boosts efficiency and yields** by reducing resource competition and improving system performance.
- **CSAF enhances ecosystem services** such as carbon storage, erosion control, and biodiversity, while maintaining agricultural productivity.
- **Diversifying income through multiple farm products reduces risk** and strengthens financial resilience during climate shocks.
- **The integration of local knowledge with external expertise improves adoption and system management**, as farmers adapt CSAF based on indigenous practices and support from NGOs or extensionists.
- **CSAF contributes to multiple SDGs** by supporting sustainable land use, climate action, and improved livelihoods.

What Doesn't Work and Why:

- **High upfront costs hinder adoption** because many smallholders lack the capital to invest in CSAF systems.
- **Delayed financial returns discourage uptake**, especially for farmers needing short-term income to survive.
- **Limited access to quality germplasm restricts CSAF effectiveness**, as farmers cannot implement optimal tree-crop combinations.
- **Weak extension services prevent effective implementation**, as CSAF systems require knowledge-intensive management.
- **Underdeveloped markets reduce incentives**, making it harder for farmers to profit from CSAF products.

- **Insecure land tenure and policy gaps deter long-term investment**, as farmers are reluctant to plant trees without land rights.
- **Policy preference for monoculture limits institutional support for CSAF**, undermining its visibility and integration into national strategies.
- **Farmer risk aversion slows adoption**, as uncertainties in outcomes and limited short-term returns make CSAF appear too risky.
- **CSAF is not universally suited to all biophysical conditions**, as shown in shaded cocoa systems that underperformed in drought-prone areas.

CSAF is a promising pathway for sustainable agriculture, offering multifunctional benefits that support climate resilience, biodiversity, and rural livelihoods while contributing to several SDGs. Realizing its full potential will require context-specific research—particularly on food security impacts—along with supportive policies, improved market infrastructure, land tenure security, and coordinated farmer capacity-building efforts. Preserving CSAF's distinct identity while aligning with broader sustainability goals will be key to its successful scaling and long-term impact.

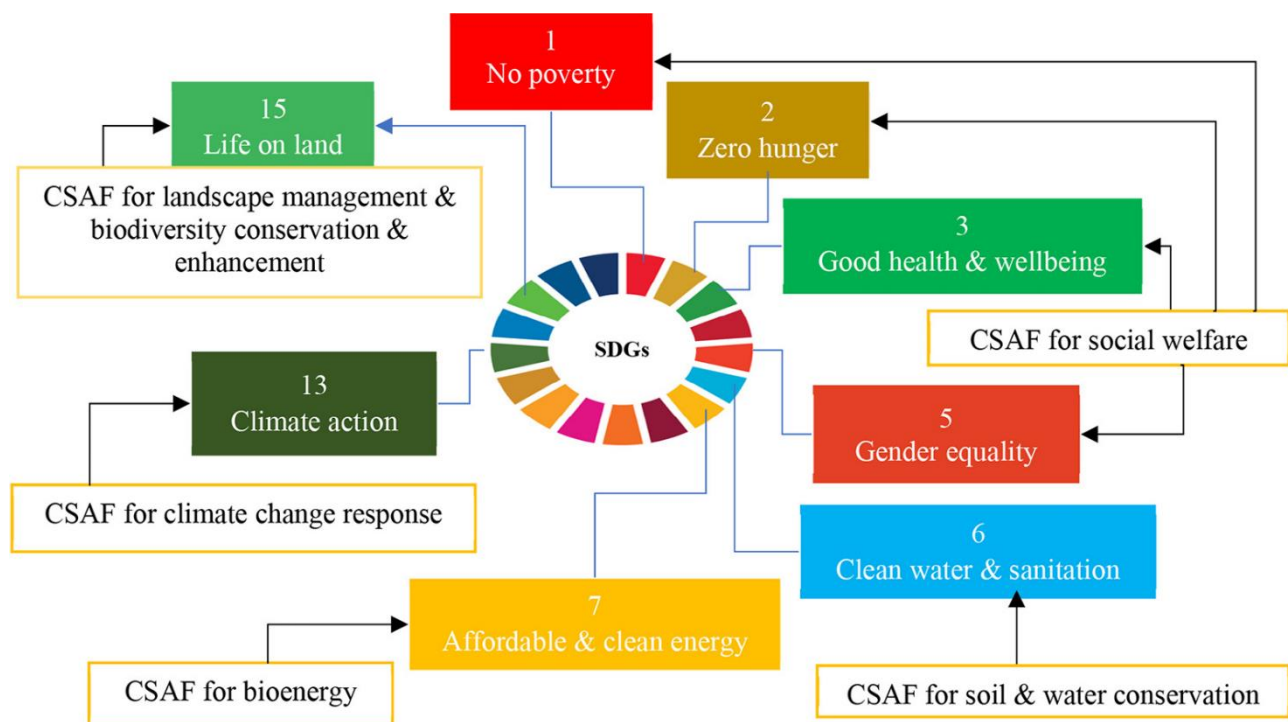


Figure | Linkage of CSAF practices with SDG priority areas.

02 THEME: Carbon Sequestration

Soil carbon sequestration by agroforestry systems in China: A meta-analysis

August 1, 2021 | Agriculture, Ecosystems & Environment | [Source](#) |

Introduction: Agroforestry systems (AFS) play a vital role in soil conservation and climate change mitigation in China, yet quantitative evidence on their soil organic carbon (SOC) sequestration potential remains limited. This meta-analysis, conducted by researchers from the Technical University of Munich (Germany) and Fujian Normal University (China), reviewed 43 studies across 38 sites encompassing shelterbelt, agrosilvicultural, and silvopastoral systems. SOC sequestration rates were evaluated at three soil depths (0–20, 20–40, and 40–60 cm) using a Random Forest model to identify key drivers, including soil type, system age, climate zone, temperature, precipitation, initial SOC levels, land use history, and tree species composition.

Key findings: Shelterbelts demonstrated the highest SOC sequestration rates across all soil layers—0.92 Mg ha⁻¹ yr⁻¹ in topsoil, 0.72 Mg ha⁻¹ yr⁻¹ in upper subsoil, and 0.52 Mg ha⁻¹ yr⁻¹ in lower subsoil— followed by agrosilvicultural and silvopastoral systems. AFS-type, initial SOC, and soil classification (WRB classes) were the most influential factors, particularly in topsoil and subsoil layers. High initial SOC levels, common in former grasslands, often limited additional sequestration and occasionally led to short-term declines. System age influenced topsoil sequestration but was negligible at greater depths, while land use history ranked lower in importance. Shelterbelts' erosion control benefits further contributed to enhanced SOC accumulation. Subtropical zones showed the most effective performance, likely due to higher primary productivity.

These findings highlight the strategic value of agroforestry—especially shelterbelt and agrosilvicultural systems—in advancing climate-smart agriculture in China. Future studies should explore under-researched AFS types, such as agrosilvopastoral or home-garden systems, and incorporate detailed soil and carbon input data to refine sequestration estimates and inform broader agroforestry applications.

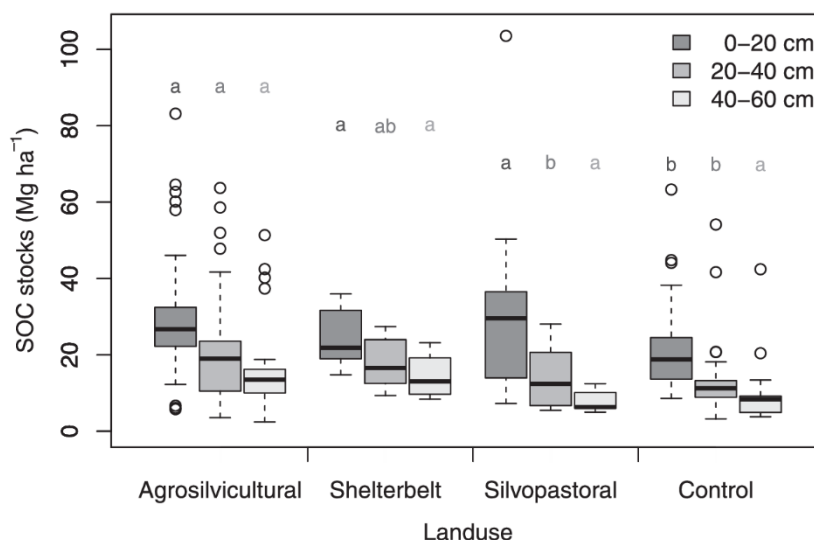


Figure | SOC stocks in topsoils (0–20cm), upper subsoils (20–40cm) and lower subsoils (40–60cm) in different agroforestry systems and the control land use system. Characters show significance between land use types.

03 THEME: Carbon Sequestration

Carbon sequestration potential of agroforestry systems in Indian agricultural landscape: A Meta-Analysis

August, 2023 | Ecosystem Services | [Source](#) |

Introduction: Agricultural intensification in India threatens ecosystem sustainability, with agroforestry identified as a key strategy to mitigate these impacts through carbon (C) sequestration. This meta-analysis, conducted by researchers from ICAR - National Institute of Agricultural Economics and Policy Research (NIAP), quantifies soil C sequestration potential in 4 Agroforestry (AF) systems—agrisilviculture, silvipasture, agrihortisilviculture, and agrihorticulture—in the Indian agricultural landscape. Synthesizing data from 46 peer-reviewed studies, it evaluates the impacts of land use change, soil depth, age, and climate, comprehends the drivers of C sequestration, and assesses economic feasibility.

Key findings:

- **Soil C sequestration potential:** AF systems increased soil C sequestration by an average of 25.34% compared to non-agroforestry systems. Among the 4 types studied, agrihorticulture showed the highest mean soil C stock at 38.11 Mg C ha⁻¹, representing a 31.64% increase compared to conventional systems.
- **Drivers of soil C sequestration and impacts of land-use change, age, soil depth and climate:** The major factors influencing soil C sequestration in Indian AF systems were identified as the previous land use, the specific type of AF system, its age, and rainfall.

Conversion from grassland to AF systems resulted in the highest C gain (+36.94%). In contrast, changing from forest to AF led to a decrease in soil C sequestration (−23.42%). This highlights the need for careful evaluation and continuous monitoring to balance the trade-offs between forest conversion to agroforestry and the competing goals of conservation and livelihoods.

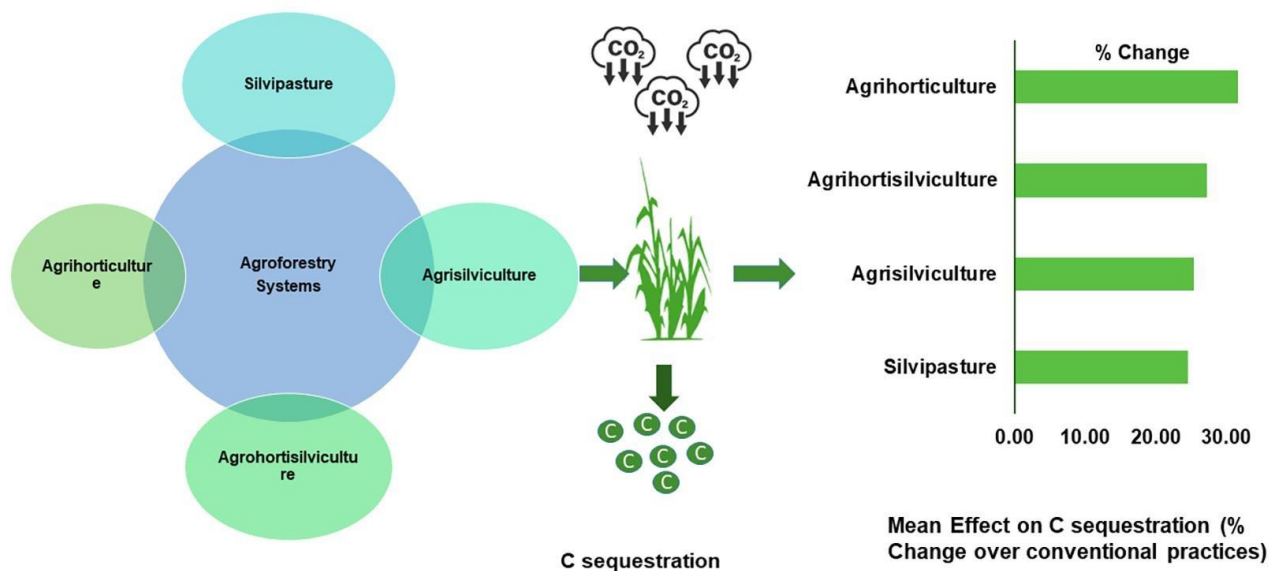
Analysis by age showed that AF systems aged 10–20 years exhibited the highest sequestration potential (+39.51%). Soil depth analysis indicated that the upper soil layers (up to 30 cm) saw significant increases in soil C stocks (ranging from +30.62% to +32.74%). AF in semi-arid subtropical regions also showed higher sequestration potential

- **Economic assessment:** All evaluated AF systems were found to be technically feasible and economically profitable. The net economic return from carbon sequestration, after accounting for stabilization costs, ranged from US \$66.25 to \$160.63 per hectare per year.

The study suggests that promoting AF through stronger policy incentives, improved certification standards for products, and better extension services is crucial for enhancing ecosystem services and supporting India's targets for net-zero emissions and increased C stock.

Graphical Abstract

C Sequestration: Agroforestry Systems vs. Conventional Practices



04 THEME: Carbon Sequestration

Mulberry based agroforestry system and canopy management practices to combat soil erosion and enhancing carbon sequestration in degraded lands of Himalayan foothills

December, 2024 | Environmental and Sustainability Indicators | [Source](#) |

Introduction: Agroforestry offers a cost-effective solution for restoring degraded mountain lands by stabilizing soil, reducing erosion, and improving water flow. Canopy management further boosts tree–crop productivity and minimizes competition for resources. To address existing research gaps in resource conservation, researchers from the ICAR-Indian Institute of Soil and Water Conservation conducted a four-year randomized block experiment. The study evaluated mulberry-based agroforestry systems intercropped with turmeric, focusing on their effects on soil erosion, nutrient retention, carbon (C) sequestration, and overall productivity.

Key findings: Mulberry coppicing combined with turmeric significantly **reduced surface runoff** by 45.3% and **soil loss** by 73.3% compared to fallow plots. This treatment also **lowered nitrogen, phosphorus, and potassium losses** by 64.7%, 74.2%, and 65.5%, respectively, over fallow, and by 31.8%, 63%, and 22.5% compared to sole turmeric. **Soil structure improved** under mulberry-based systems, with **water stable aggregates (WSA) increasing** by up to 37% under coppicing and pollarding treatments. The pollarding + turmeric combination led to the highest soil fertility levels and **enhanced soil organic C (SOC) stock** by 23.3%, with **SOC sequestration rates rising** by 107.4%. It also **improved soil moisture** by 25% relative to sole turmeric cropping. While sole mulberry under lopping achieved the highest above-ground biomass and C sequestration, combining mulberry and turmeric under pollarding or lopping yielded the highest below-ground biomass and C storage. Turmeric **yield increased** by 17.6% under the pollarded mulberry system, with better rhizome development, although above-ground growth remained highest in sole turmeric plots.

These results suggest that mulberry-based agroforestry systems, especially when paired with canopy management practices, offer a sustainable strategy for rehabilitating degraded lands, enhancing yields, and mitigating soil erosion—particularly in the Western Himalayan region and similar agro-climatic zones. However, further research is needed to assess long-term impacts on soil biological health, including microbial dynamics and enzyme activity.

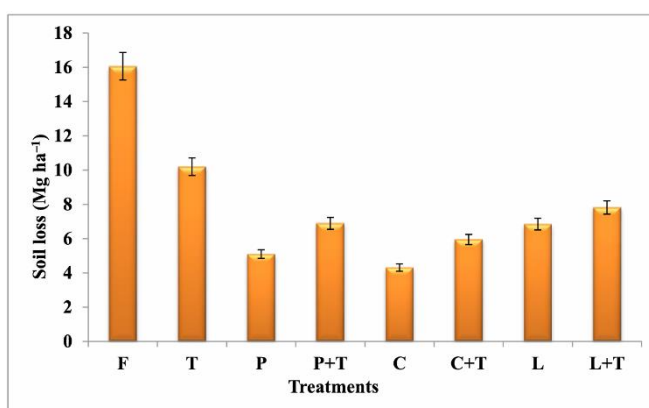


Figure | Effect of different treatments on soil loss (Average data of four years). (F: fallow; T: sole turmeric; P: pollarding; P+T: pollarding + turmeric; C: coppicing; C+T: coppicing + turmeric; L: lopping; L+T: lopping + turmeric. Error bars denote least significant difference (P = 0.05).

05 THEME: MRV (Measurement, Reporting, Verification); Carbon Sequestration

Priority science can accelerate agroforestry as a natural climate solution

28 September, 2023 | nature climate change | [Source](#) |

Introduction: Agroforestry presents significant potential for sequestering up to 0.31 Peta gram of carbon (Pg C) annually— comparable to major solutions like reforestation. Yet, uncertainty persists regarding precise mitigation capabilities and practical monitoring of agroforestry systems. To address these gaps, an international research consortium led by The Nature Conservancy outlines agroforestry as an effective natural climate solution (AF-NCS). Utilizing high-resolution remote sensing and comprehensive carbon data synthesis, their approach seeks to refine understanding and enhance monitoring precision.

Key findings: The study identifies agroforestry’s multifunctionality—providing agricultural, economic, and environmental benefits—while emphasizing its role in climate mitigation through carbon sequestration. Current global agroforestry practices already contain substantial woody carbon (ranging from 6.93 to 37.12 Pg C). However, precise estimates are challenging due to diverse management practices and measurement methodologies, which significantly vary in accuracy and scope. The researchers advocate for standardized, improved data collection techniques and advanced remote sensing methodologies to better quantify agroforestry’s true potential and facilitate accurate global monitoring.

The study also emphasizes that agroforestry adoption faces barriers including complex management practices, economic feasibility, and inadequate policy support. Regions with high agroforestry potential, notably in the Global North, are often overlooked in climate mitigation strategies. The authors call for targeted research and increased awareness to lower adoption barriers and integrate agroforestry more comprehensively into climate policies and incentive mechanisms, such as carbon markets and national environmental strategies. Future research should prioritize enhancing monitoring accuracy, exploring socio-economic impacts, and developing region-specific incentives to scale up agroforestry implementation.

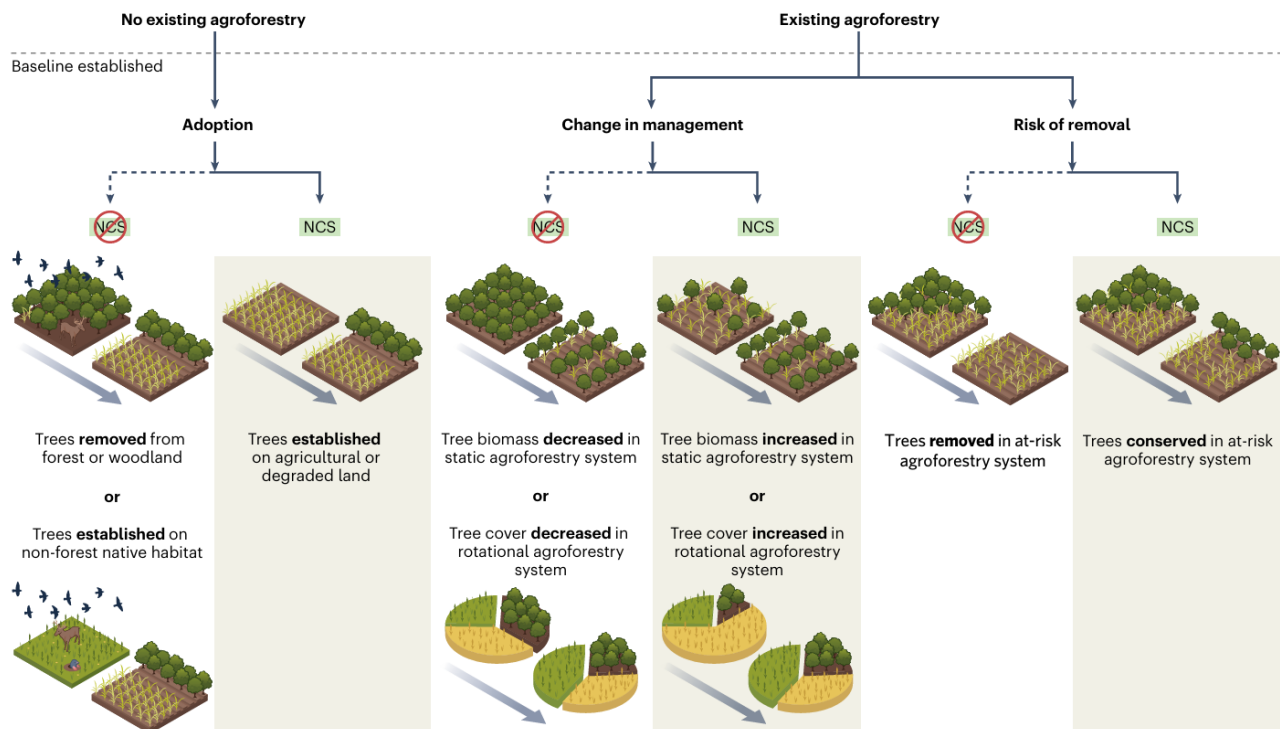


Figure | Land-use change and carbon outcomes determine whether agroforestry is an NCS. If agroforestry does not exist before the baseline, then agroforestry adoption serves as an NCS when it increases woody and soil carbon storage without impacting biodiversity (left). If agroforestry exists at the time of baseline establishment, changing agroforestry management can serve as an NCS if it increases tree biomass or proportional tree cover in static or rotational agroforestry systems, thus increasing carbon storage (middle). Alternatively, conservation of some or all trees can serve as an NCS if those trees would have been removed under business-as-usual conditions, such that their maintenance leads to avoided emissions (right). Figure adapted from image by Vin Reed.

NEWS

01 THEME: Policy Incentives, Financing, Pricing

The world needs a new food revolution. Here's how to empower farmers to make it happen

April 22, 2025 | [World Economic Forum \(WEF\)](#) |

This WEF article emphasizes the critical role farmers play in creating sustainable food systems. Drawing on experiences from India, it highlights how public-private partnerships (PPPs) effectively promote sustainable agriculture. Initiatives such as the [Food Action Alliance](#) and the [First Movers Coalition for Food](#) demonstrate collaborative support for farmers adopting climate-smart practices. The article stresses the importance of equipping farmers with resilience, resources, and rewards to manage challenges like climate change and market volatility. By implementing financial tools like parametric micro-insurance and encouraging crop diversification, stakeholders can empower farmers to spearhead a new green revolution. These efforts align closely with global agendas at forums like the [UN Food Systems Summit](#) and [COP30](#), striving towards a sustainable agricultural future.



02 THEME: GHG Emission Reduction; Carbon Sequestration

Nestlé, ofi launch global agroforestry initiative to cut 1.5M tons of CO₂

April 23, 2025 | [ESG News](#) |



Nestlé and ofi (olam food ingredients) have launched their largest joint agroforestry initiative, aiming to cut over 1.5 million tons of CO₂ emissions by 2055. The program will train 25,000 farmers in Brazil, Côte d'Ivoire, and Nigeria in climate-smart practices such as agroforestry and crop residue management. It includes planting 2.8 million trees across 72,000 hectares, financial incentives for tree upkeep, and AI tools like the Carbon Stock Monitoring system and

AtSource Digital Footprint Calculator to track impact. The initiative also promotes environmental stewardship, emphasizing compliance with the African Regional Sustainability Standard (ARS) and the EU Deforestation Regulation (EUDR). This aligns with Nestlé's 2050 Net Zero roadmap and ofi's Cocoa Compass, advancing sustainable cocoa production.

03 **THEME:** Policy Incentives, Financing, Pricing; Carbon Sequestration

As US agroforestry grows, federal funding freeze leaves farmers in the lurch

April 1, 2025 | [Mongabay](#) |



Agroforestry has been steadily gaining ground over the past eight years in the U.S., with the number of projects increasing 6% nationwide according to a new study. A federal funding freeze imposed on Jan. 27 put many agroforestry projects on hold pending a 90-day review, halting reimbursements and issuing stop-work orders. The freeze affects farmers and nonprofits, notably [Appalachian Sustainable Development \(ASD\)](#), which lost access to

\$1.25 million in grants. This interruption threatens income streams and community food programs, undermining progress in climate-smart agriculture. The uncertainty surrounding the reinstatement of funds leaves many agroforestry projects in limbo, jeopardizing efforts to enhance sustainable food systems and rural economies.

04 **THEME:** Policy Incentives, Financing, Pricing; Carbon Sequestration

Taiwan forestry launches ESG platform to link carbon projects with corporate sustainability goals

March 30, 2025 | [UDN](#) (In Chinese) |

In response to rising corporate demand for environmental, social, and governance (ESG) action and carbon credits, Taiwan's Forestry and Nature Conservation Agency launched the "Nature-Based Carbon Credits and Biodiversity Projects Matching Platform ([自然碳匯與生物多樣性專案媒合平臺](#))" in 2022. The platform connects enterprises with projects focused on forest carbon sequestration, biodiversity conservation, and Indigenous community engagement on state-owned forestland. As global climate regulations tighten—such as the EU's upcoming Carbon Border Adjustment Mechanism (CBAM)—and major companies like Apple and Google press suppliers to reduce emissions, the platform offers transparent project listings, flexible collaboration terms, and third-party verified sustainability outcomes. It aligns with global targets such as the SDGs and the Kunming-Montreal Global Biodiversity Framework (K-M GBF), helping companies avoid greenwashing while supporting local communities.



05 **THEME:** MRV (Measurement, Reporting, Verification); Policy Incentives, Financing, Pricing

Taiwan expands ESG disclosure and sustainability guidelines to boost corporate accountability and green finance

March 15, 2025 | [Agri-harvest](#) (In Chinese) |

Starting in 2025, all listed companies in Taiwan are required to publish environmental, social, and governance (ESG) sustainability reports, marking a major step in aligning corporate practices with global climate and governance standards. The Financial Supervisory Commission (FSC) has integrated agriculture and forestry into its updated sustainable economy guidelines, offering criteria for practices such as organic certification, biodiversity-friendly farming, and circular use of agricultural residues. Leading firms such as Chunghwa Telecom and Taiwan Sugar Corporation have already launched tree-planting and soil carbon initiatives. The FSC endorses major international disclosure frameworks, including the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards (S1 and S2) issued by the International Sustainability Standards Board (ISSB), with third-party assurance required for high-impact sectors. It also reflects emerging standards such as the EU Taxonomy for sustainable economic activities and the Taskforce on Nature-related Financial Disclosures (TNFD), ensuring alignment with global expectations on climate and biodiversity transparency. These efforts aim to curb greenwashing, enhance disclosure quality, and direct financial flows toward genuine low-carbon transitions. With ESG scores influencing investment decisions, Taiwan is positioning its top enterprises—and their supply chains—for sustainable transformation amid growing global regulatory and market pressures.



06 **THEME:** Policy Incentives, Financing, Pricing

Rural resilience: ado rural farmers association's path to sustainable agriculture in Solomon islands

April 1, 2025 | [United Nations Development Programme \(UNDP\)](#) |



In Malaita Province, Solomon Islands, the Ado Rural Farmers Association (ARFA) is advancing sustainable agriculture through its Sustainable Agro-Forest Nursery Expansion Project. Founded during a period of social unrest, ARFA now trains farmers in nursery management and supplies pest- and climate-resilient seedlings to rehabilitate lands degraded by logging and invasive species. Supported by the UNDP's Global Environment Facility (GEF) Small Grants Programme and Australia's Department of Foreign Affairs and Trade (DFAT), the initiative promotes food security, income generation, and reforestation. ARFA's success has inspired similar projects across Malaita, fostering a grassroots network for

climate adaptation. With future plans including micro-hydropower and academic collaboration, ARFA exemplifies community-driven resilience in the Pacific.

07 THEME: Policy Incentives, Financing, Pricing

Transforming rice cultivation in the hilly regions of Bangladesh: A story of resilience and innovation

April 8, 2025 | [Rice Today](#) |

In Bangladesh's Chattogram Hill Tracts—a remote, low-productivity agricultural zone marked by steep terrain, water scarcity, and poor soil fertility—the International Rice Research Institute (IRRI) and the Bangladesh Rice Research Institute (BRRI) are introducing climate-resilient rice solutions. Through farmer-led Head-to-Head Adaptive Trials (HHATs), BRRI dhan88 and BRRI dhan100 emerged as top-performing, short-duration varieties, yielding up to 7.16 t/ha in Khagrachari and 6.80 t/ha in Rangamati.

These varieties offer drought and pest tolerance, disease resistance, and superior grain quality, helping boost food security and farmer incomes despite geographical constraints. Women-led seed producer groups also reported record yields, promoting gender inclusion and local empowerment. Backed by One CGIAR and IRRI's One Rice Breeding strategy, the initiative fosters sustainable agriculture, community resilience, and farmer-to-farmer seed exchange, demonstrating how innovation can transform livelihoods in marginal upland ecosystems.



POLICY

01 THEME: Climate-Smart Agriculture; Nature-based solutions

UK Guidance - A Guide to Agroforestry

Forestry Commission, UK | [Source](#) |

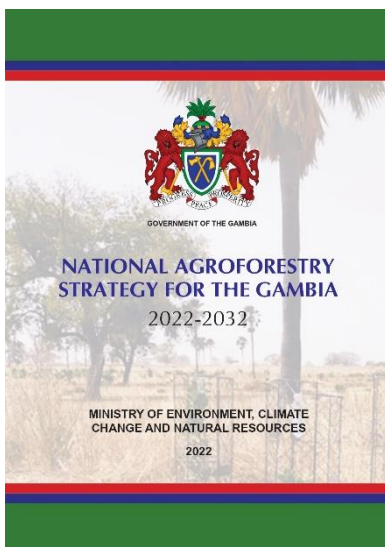
This guide provides comprehensive information for integrating trees into farming systems across England. It thoroughly addresses key topics, including definitions and principles of agroforestry, its associated benefits, and various approaches such as in-field and around-field agroforestry. Additionally, the guide details practical planting arrangements tailored for diverse agricultural operations. It also highlights available funding opportunities and grant support mechanisms aimed at encouraging farmers to adopt agroforestry practices. Furthermore, it directs stakeholders to supplementary resources, such as the Tree Species Guide for UK Agroforestry Systems and the Agroforestry Handbook, to facilitate informed decision-making and effective agroforestry implementation.



02 THEME: Climate-Smart Agriculture; Net Zero Strategy

National Agroforestry Strategy for the Gambia 2022-2032

Ministry of Environment, Climate Change and Natural Resources, Gambia | [Source](#) | [Report](#) |



This Strategy aims to mainstream agroforestry as a core practice for strengthening climate resilience, improving food security, and promoting sustainable livelihoods in The Gambia. It outlines key objectives, including establishing coherent policy frameworks, fostering institutional collaboration, enhancing the generation and dissemination of agroforestry knowledge, creating market-based incentives, and ensuring inclusive stakeholder participation. The Strategy references existing national policies and international commitments relevant to agroforestry, notably The Gambia's Nationally Determined Contributions (NDCs) and National Adaptation Programmes of Action (NAPAs). Developed through extensive consultations with diverse stakeholders, it emphasizes participatory governance, capacity-building, and gender inclusivity.

A structured monitoring framework will assess biophysical, socio-economic, and environmental impacts, enabling ongoing adaptation and policy refinement to effectively support agroforestry development.

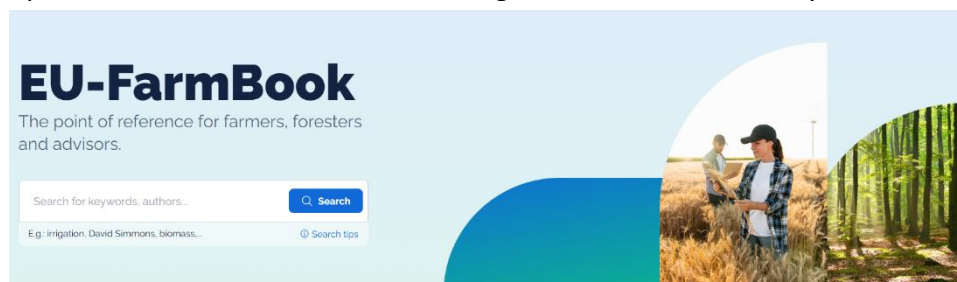
OPEN DATA

01 THEME: Climate Smart and Net Zero Toolkit

EU-FarmBook

Funded by the European Union | [Source](#) | [Flyer](#) |

EU-FarmBook is a Horizon Europe initiative designed to support knowledge exchange in agriculture and forestry across the EU. It offers an interactive, multilingual online platform that aggregates practical knowledge from Horizon research projects. Users—farmers, foresters, and advisors—can access, contribute, and interact with knowledge objects in their own languages. The platform allows keyword-based searches with advanced filters by topic, type, and language, and supports bookmarking, personalized accounts, and content uploads with metadata. With thousands of contributions in areas like forestry, livestock, crop farming, economics, environment, and society, EU-FarmBook connects 29 partners across 18 countries, forming an EU-wide Community of Practice and strengthening links with AKIS actors, CAP Networks, and related projects.



02 THEME: Climate Smart and Net Zero Toolkit

Agroforestry Design Tool™

Agroforestry.com | [Source](#) | [User Manual](#) |

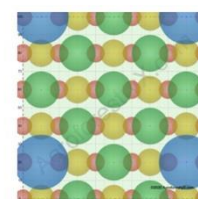
AgroforestryX is a web-based design tool developed by Regenerative Agroforestry Systems (RAS) in Hawaii to support the creation of multistory agroforests tailored



Agroforestry vision



Agroforestry Design Tool™
{AgroforestryX.com}



Agroforestry design

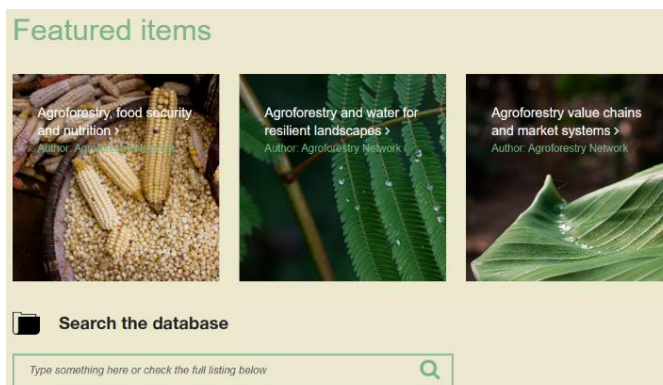
to specific site conditions and project objectives. The platform guides users through species selection, geometric planting layouts, and visualizations of forest development over time. It supports a range of applications including food and timber production, habitat restoration, and carbon sequestration. By simulating forest growth and structure, AgroforestryX enables the design of regenerative systems that enhance biodiversity, soil health, and ecosystem services. While the tool offers valuable planning support, it is intended to complement—rather than replace—expert consultation and traditional ecological knowledge.

03 THEME: Climate Smart and Net Zero Toolkit

Agroforestry Network

Vi Agroforestry | [Source](#) | [Database](#) |

Agroforestry Network is a Sweden-based platform founded by Vi Agroforestry to promote agroforestry as a sustainable land management practice in developing countries. It serves as a knowledge hub, connecting Swedish and international experts to share research, policy insights, and field experiences. The platform offers a comprehensive database of publications, including policy briefs and reports, and hosts events and webinars to facilitate dialogue among practitioners, researchers, and policymakers. Through its collaborative network, Agroforestry Network aims to advance agroforestry's role in achieving global goals related to climate action, biodiversity, and sustainable agriculture.



EVENT

01

Agri4D 2025September 23-25, 2025 | Hybrid | Uppsala, Sweden | [Source](#) |

The Agri4D 2025 conference will be held on 23–25 September in Uppsala, Sweden, with hybrid participation options. Organized by SLU Global at the Swedish University of Agricultural Sciences (SLU) and Swedish International Agriculture Network Initiative (SIANI), with support from Swedish International Development Cooperation Agency (Sida), the conference focuses on advancing regenerative food systems that are equitable, resilient, and climate-smart. The program includes keynote addresses by global experts, panel discussions, and a dedicated side event on sustainability pathways in Africa. Structured around three thematic pillars—youth leadership, food systems transformation, and equity—the event fosters multi-stakeholder engagement and evidence-based policymaking in low-income contexts. It aims to accelerate innovation, bridge science and practice, and support progress toward SDG 2 (Zero Hunger).

02

The 9th International Conference on Silicon in Agriculture (ICSA 2025)September 15-19, 2025 | In-person | Belgrade, Serbia | [Source](#) |

The 9th International Conference on Silicon in Agriculture (ICSA 2025) will take place in Belgrade, Serbia, on 15–19 September 2025. Organized by the University of Belgrade – Institute for Multidisciplinary Research and International Society of Silicon in Agriculture (ISSAG), the conference explores the role of silicon in advancing sustainable agriculture and ecosystem resilience. The program includes 6 thematic sections, ranging from silicon dynamics in soils to its effects on plant stress tolerance, yield, and climate change mitigation. Featuring scientific talks, posters, and industry exhibits, ICSA 2025 aims to foster global collaboration among researchers and professionals working on silicon's impact within plant–soil–microbe systems.



03

The fifth TropAg conference (TropAg 2025)

November 11-13, 2025 | In-person | Brisbane, Queensland Australia | [Source](#) |

TropAg 2025 will be held in Brisbane, Australia, from 11–13 November, bringing together leading Australian and international experts to address pressing issues in agriculture and food production. Under the theme “Addressing Global Challenges,” the conference will feature 6 keynote speakers and 27 symposia across 3 streams: Future Foods (innovations in sustainable food and beverage manufacturing), Growing Agriculture (community resilience, Indigenous partnerships, and supply chain value), and Climate + Sustainability (climate adaptation and mitigation, biodiversity, and resource stewardship). The registration is now open.



04

2025 International Conference on Biodiversity, Ecology and Climate Change (ICBECC-2025)

December 16-17, 2025 | In-person | Berlin, Germany | [Source](#) |



The 2025 International Conference on Biodiversity, Ecology and Climate Change (ICBECC 2025) will take place in Berlin, Germany, from 16–17 December. Organized by IGRNet, the event provides a global platform for researchers, students, and professionals to exchange insights on biodiversity conservation, ecosystem resilience, and climate change. The program will include keynote addresses and technical sessions on topics such as ecological behaviour, environmental toxicology, renewable energy, agronomy, and sustainable development. With a strong focus on youth participation and interdisciplinary exchange, ICBECC 2025 aims to foster innovation, dialogue, and impactful research. Paper submission deadline is 25 November 2025, and the last date for registration is 1 December 2025.

05

American Geophysical Union Fall Meeting 2025 (AGU 2025)

December 15-19, 2025 | Hybrid | New Orleans, Louisiana, USA | [Source](#) |

The AGU Fall Meeting 2025 (AGU25) will take place on 15–19 December in New Orleans, USA, bringing together thousands of scientists, educators, and policymakers to explore cutting-edge research in Earth and space sciences. With the theme “Where Science Connects Us,” AGU25 emphasizes the collaborative power of science through a dynamic 5-day program featuring keynote addresses, named lectures, and diverse session formats—including eLightning, posters, town halls, and workshops. Attendees can participate both in-person and virtually, with access to on-demand content. The event also includes networking opportunities, mentoring, and career advancement support, fostering global dialogue and actionable solutions for planetary challenges.

AGU25
New Orleans, LA | 15–19 December 2025

06

The 5th International Conference on Tropical Silviculture (The 5th ICTS2025)

August 21, 2025 | Hybrid | Bogor, Indonesia | [Source](#) |

The 5th International Conference on Tropical Silviculture (ICTS 2025) will take place on 21 August 2025 in Bogor, Indonesia, as a hybrid event held onsite and virtually via Zoom. Organized by the Department of Silviculture at IPB University, in collaboration with the Indonesian-Based Wood Identification Program and the World Resources Institute (WRI), the conference will focus on the theme “Forestry and Environmental Forensics.” Topics include timber and wildlife forensics, pollution forensics, disaster forensics, and emerging technologies, among others. The event invites global researchers and practitioners to present their work and publish papers in the IOP Conference Series: Earth and Environmental Science.

KEYNOTE SPEAKER

Prof. Bambang Hery Setyawan
Prof. Dr. Hery Setyawan
Prof. Dr. Hery Setyawan
Prof. Dr. Hery Setyawan
Prof. Dr. Hery Setyawan

INVITED SPEAKER

Dr. Hery Setyawan
Dr. Hery Setyawan
Dr. Hery Setyawan
Dr. Hery Setyawan
Dr. Hery Setyawan

Sub-Topic

1. Wood Forensics and Timber Tracking
2. Wildlife Forensics and Conservation
3. Planting Stocks and Nursery Forensics
4. Pollution Forensics and Environmental Impact Assessment
5. Disaster Forensics: Flooding, Fire, and Climate Change
6. Legal, Policy, and Ethical Dimensions of Forestry and Environment Forensics
7. Emerging Technologies and Innovations in Forestry Forensics
8. Interdisciplinary Sciences in Forestry and Environment

Registration Fee

Registration Type	Participant Category	Fee
Early Bird (before 10 th May 2025)	Author (Non-Student)	USD 350.000 / 25 USD
	Author (Student)	USD 250.000 / 15 USD
Regular	Non-Paper Participants	USD 150.000 / 10 USD
	Author (Non-Student)	USD 300.000 / 20 USD
	Author (Student)	USD 200.000 / 10 USD
	Non-Paper Participants	USD 100.000 / 5 USD

Important Dates

- Abstract submission deadline: 31 May 2025
- Full paper submission deadline: 31 May 2025
- Abstract acceptance announcement: 1 June 2025
- Conferences: 21 Aug 2025

Registration Link
<https://ipb.link/icts-5th2025>

Secretariat
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