Agroecology Practices in Togo and ECOWAS State: Progress, Challenges and Opportunities

July 2025

Executive Summary

Agroecology presents a powerful and holistic alternative to address West Africa's interconnected crises of soil degradation, food dependency, and climate vulnerability. Rooted in traditional knowledge and community participation, agroecology holds the promise of sustainable food systems that prioritize ecological health, resilience, and social equity. Yet, despite its potential, widespread adoption remains limited by the absence of rigorous, context-specific data and policy recognition.

This study responds to these gaps by providing robust, evidence-based documentation of agroecological practices across West Africa, with a specific focus on Togo and the broader ECOWAS region. It maps key actors, including farms, civil society organizations (CSOs), and farmer networks and assesses the practices, benefits, challenges, and enabling conditions shaping agroecology in the region. The study also formulates strategic, stakeholder-specific recommendations aimed at scaling agroecology through informed advocacy and inclusive policy support.

The research employed a participatory, mixed-methods approach combining literature reviews, key informant interviews, and field visits. This triangulated methodology ensured a nuanced understanding of agroecological impact across multiple dimensions, including food sovereignty, productivity, nutrition, biodiversity, and farmer well-being.

Key findings affirm that agroecology is more than a set of farming techniques - it is a transformative system that restores ecosystems, strengthens local economies, and empowers rural communities. Successful practices observed include farmer-managed natural regeneration, organic composting, indigenous seed conservation, crop diversification, and community-based knowledge sharing.

The study offers clear recommendations tailored to civil society, government institutions, development partners, and farmers themselves. These include integrating agroecology into national agricultural policies, reforming subsidy programs to support natural inputs, expanding farmer-led training, securing land tenure for marginalized groups, and investing in participatory research and evaluation frameworks.

Ultimately, the transition to agroecology requires political will, coordinated investment, and recognition of the knowledge and leadership already present in farming communities. Scaling agroecology is not only a viable strategy but an urgent necessity to achieve food sovereignty, climate resilience, and sustainable development across West Africa.

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INTRODUCTION: Food Insecurity: a case of mismatch between solution and people

BACKGROUND

Despite decades of agricultural interventions and innovation across West Africa, the region continues to grapple with low productivity, rising food insecurity, high food imports, increase in malnutrition, and diminishing food sovereignty. A key reason is the persistent mismatch between externally driven agricultural solutions and the cultural realities of Africa's farming systems.

Many programs promote big technologies, external inputs, and market systems that overlook the ecological diversity, gender roles, land tenure arrangements, and indigenous knowledge that define local agriculture. As a result, the dominant players in the agricultural system that produces the majority of food in the continents and nations alike - the smallholder farmers often reject, and underutilize these solutions, leading to wasted investments, reduced yields, and weakened resilience. Moreover, the push for monoculture, cash crops, and export-oriented production has marginalized traditional food crops and eroded local control over seed systems and land, undermining community self-reliance and the right to culturally appropriate food.

West Africa's persistent challenges with low agricultural productivity, worsening food insecurity,

and the erosion of food sovereignty are not simply

Descriptive Features of Traditional Agricultural Systems in West Africa

Traditional agricultural systems in West Africa are deeply rooted in indigenous knowledge, community values, and ecological principles. They were typically:

- **Smallholder-based**: Most farms are family-owned and cultivated partly for subsistence, and local market supply. These smallholder farmers as of today produce over 70% of food in the region/continent – wasting close to 50% of food produced.
- **Diverse and multifunctional**: Farmers often practice mixed cropping (e.g., millet with cowpeas, or maize with cassava), and keep small livestock, providing food security and risk management.
- **Low external input**: Previous traditional farm systems relied more on organic manure, local seed varieties, and traditional pest control methods rather than synthetic inputs.
- **Communally oriented**: Land is often owned by communities or inherited through families; farming is tied to traditional land tenure systems.
- **Agroecological in essence**: Many practices align with agroecological principles, such as fallowing, crop rotation, and intercropping, aimed at preserving soil fertility and ecosystem balance.
- **Women Domination p**articularly in food crop production, processing, and local marketing. However, they often face limited access to land, credit, and extension service.
- **Youth s**lowly re-engaging through agri-entrepreneurship, but still underrepresented.
- **Typical farm size:**: Usually 0.5 to 5 hectares.
- **Manual labor** with hoes and cutlasses.
- **Rain-fed agriculture** with seasonal dependence.
- **Traditional knowledge** for planting calendars, pest management, and soil fertility.
- Use of **indigenous seeds** adapted to local conditions.
- **Communal labor systems** like rotational labor groups in some regions.

the result of climate stress or economic hardship. Rather, they reflect a deeper, structural misalignment between externally imposed agricultural solutions and the lived realities of local farming systems. For decades, development policies, government agriculture funding and donor-funded interventions have promoted industrial inputs, monoculture-based production models, and export-driven value chains; all of which are poorly matched to the ecological and cultural foundations of the region's agriculture.

Traditional agriculture in West Africa is predominantly smallholder-based, ecologically diverse, and rooted in communal land tenure systems and indigenous knowledge. Women play a central role in food production, processing, and local trade, yet they are routinely excluded from decision-making and denied secure land rights. Technologies and innovations are too often delivered through top-down channels that overlook farmer voices, disrupt agroecological balance, and promote dependency on expensive external inputs. The shift toward monoculture cash crops has contributed to soil depletion, biodiversity loss, and the declining cultivation of indigenous food crops that are critical for nutrition, cultural identity, and local food security.

One of the most visible expressions of this mismatch is the promotion of inappropriate mechanization. Large-scale tractors and industrial equipment frequently imported without local servicing ecosystems - are ill-suited to the small, scattered plots typical of West African farms.

Systemic Changes to Traditional Agricultural System in West Africa - due to internal pressures and external influences:

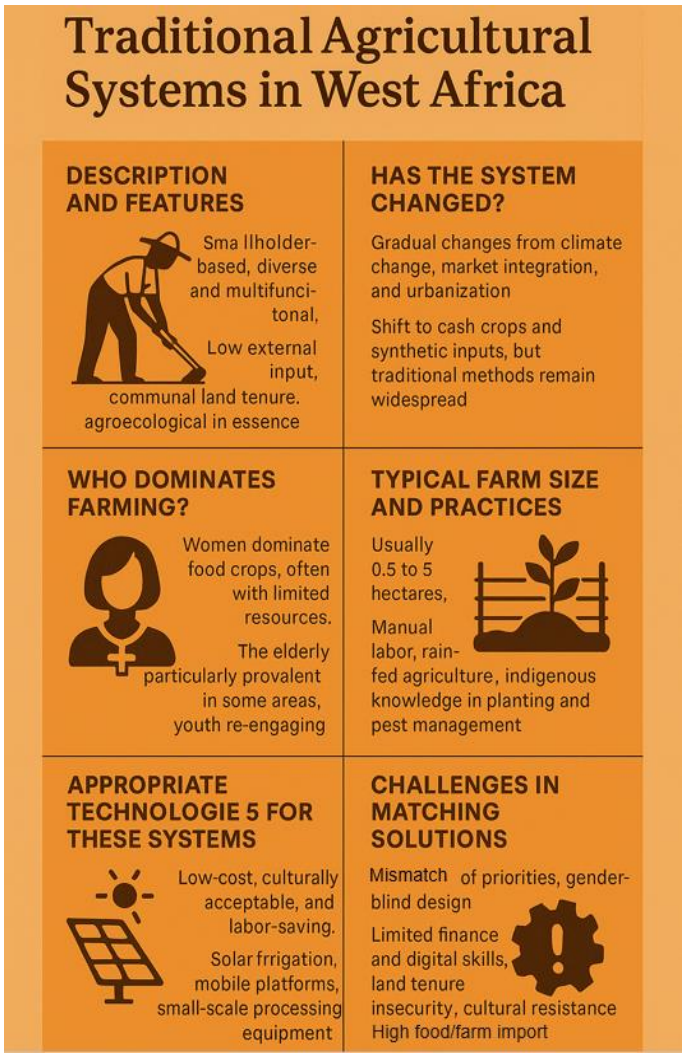
- **Colonization and Market integration** has increased the shift to **cash crops** (e.g., cocoa, cotton, shea), mosttimes at the expense of traditional food crops.
- **Climate change** and land degradation have affected productivity and seasonality.
- **Poor Urbanization Plans** has reduced available land, compromised biodiversity and drawn youth away from farming.
- **Introduction of synthetic inputs, monoculture** systems, agricultural capitalism and GM-technology and policy infiltration by industry players –leading to local food market capture and control – loss of food sovereignty.
- Increase external dependency for food and farm imput – evidence in high import bill for food crops and farm inputs.

Challenges in Matching Solutions

- **Mismatch of priorities**: Many agricultural interventions are top-down, ignoring local contexts.
- **Gender-blind designs**: Technologies and extension programs often exclude women's needs.
- **Limited access to finance** for smallholders to adopt improved practices.
- **Low literacy and digital skills** in rural areas limit the uptake of digital tools.
- **Land tenure insecurity**, particularly for women and youth, discourages long-term investment in land.
- **Cultural resistance**: Farmers may be hesitant to abandon long-held practices without trust in the proposed alternatives.
- **Lack of data and feedback loops** to adapt technologies to micro-local conditions.

These machines are often monopolized by elites and politicians, left unused, or contribute to land degradation and labor displacement. By contrast, what farmers need are affordable, adaptable, and labor-supportive technologies, such as animal traction, multi-purpose hand tools, and solar-powered processing units - that align with traditional practices and reinforce agroecological integrity.

The continued neglect of these contextual realities has weakened local food systems, increased hunger poverty, and malnutrition figures, deepened inequality, increased food import bills, and stalled progress toward sustainable agriculture.



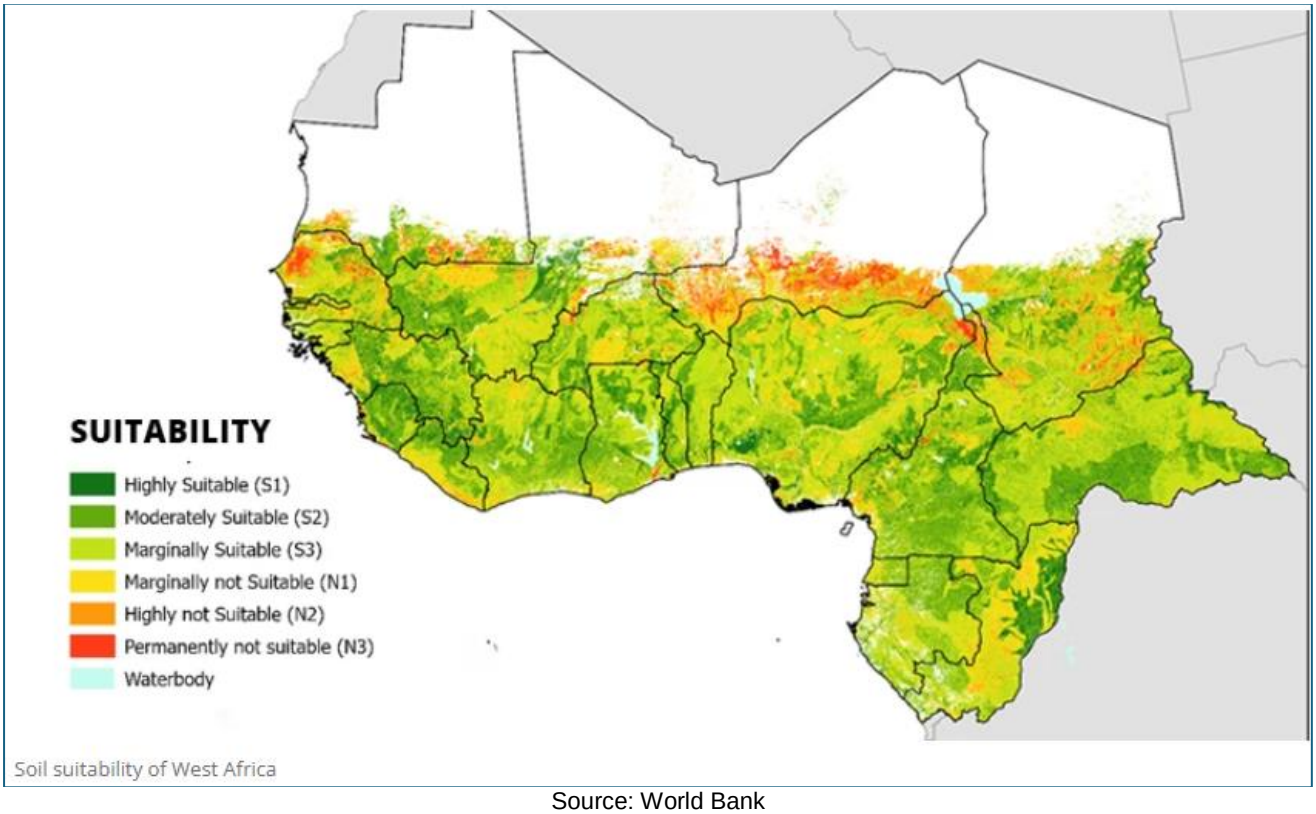
Current Farming Practices and Their Effects on Soil Fertility and Agricultural Production

Soil health in West Africa is increasingly under threat due to both natural vulnerabilities and harmful agricultural practices. Much of the region's soils are naturally low in organic matter and nutrients - especially in the Sahel and savannah zones; making them fragile and easily degraded. The soil health situation in West Africa is critical, with around 80% of cultivated land degraded[1], resulting in significant nutrient losses (30 – 60 kg per hectare) and economic

[1] Nash,John D.; Halewood,Naomi J.; Melhem,Samia. (2013): *Unlocking Africa's agricultural potential : an action agenda for transformation (English).* Africa region sustainable development series Washington DC : World Bank. http://documents.worldbank.org/curated/en/795321468191670202

damage estimated at about USD 4 billion annually. This degradation severely undermines agricultural productivity, food security, and rural livelihoods.[2]

Over time, poor land management, deforestation, erosion, and climate variability have contributed to widespread declines in soil fertility. Current dominant farming practices—particularly monoculture, the use of genetically modified (GM) crops, and heavy reliance on synthetic pesticides and fertilizers, are exacerbating this crisis.[3]



Source: World Bank

Monoculture farming, where the same crop is grown repeatedly on the same land, depletes specific soil nutrients and diminishes biodiversity both above and below ground. It also increases vulnerability to pests and diseases, often prompting greater pesticide use.[4] (FAO & ITPS, 2017). In parts of Nigeria, Ghana, and Burkina Faso, GM crops like Bt cotton and maize are being introduced with the promise of higher yields, but these varieties are often tied to intensive synthetic input use and seed market dependency.[5] This disrupts traditional soil-preserving practices such as intercropping, composting, and fallowing.

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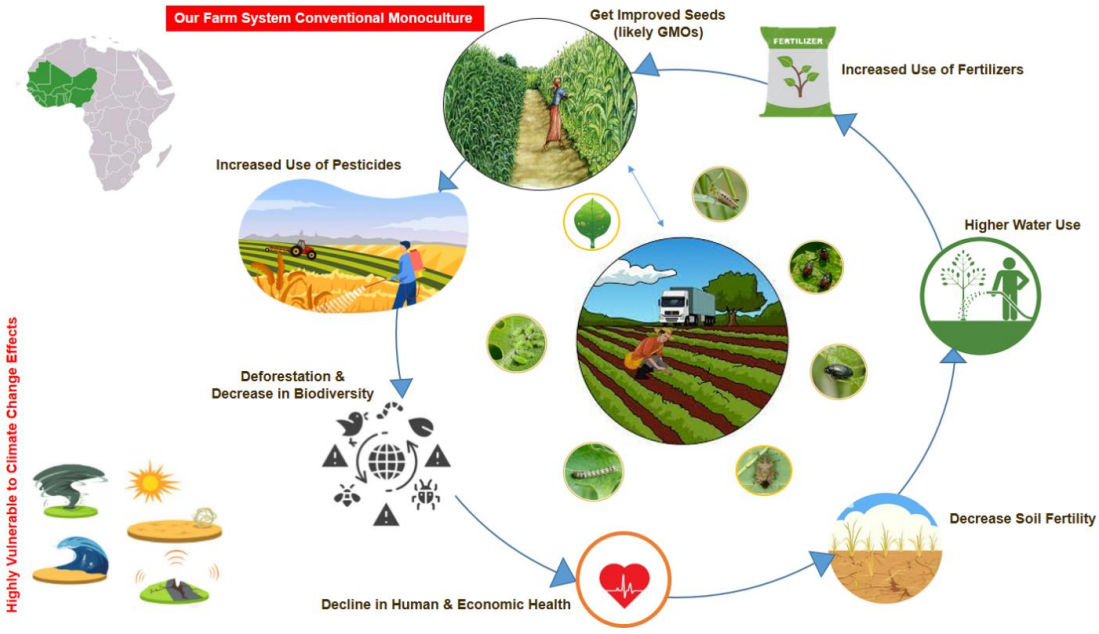
2 Ilyun KohMekbib HaileElhadji Adama TouréAbel Lufafa (May 16, 2025): Greening West African Soils. World Bank Blogs. https://blogs.worldbank.org/en/africacan/greening-west-african-soils

3 UNEP (2021). A New Deal for Nature: Transforming Agriculture for Soil and Climate Health

4 FAO (2017): Global assessment of the impact of Plant Protection Products on soil functions and soil ecosystems.https://openknowledge.fao.org/items/116deb6d-6c27-4336-b4de-924e2a6faa80

5 African Centre for Biodiversity (2021). GMO Myths and Truths in Africa, and ISAAA (2022). Global Status of Commercialized Biotech/GM Crops

According to the FAO, and WHO, the widespread use of chemical pesticides has been shown to negatively impact soil organisms - such as earthworms, mycorrhizal fungi, and nitrogen-fixing bacteria, that are essential to nutrient cycling and soil structure.[6] Meanwhile, the excessive use of synthetic fertilizers may lead to short-term yield gains but often results in soil acidification, reduced organic matter, and declining long-term fertility.[7,8] Many smallholder farmers in West Africa report that they now require higher quantities of fertilizers to sustain crop yields, pointing to deepening soil degradation and nutrient mining. [9]



Consequently, agricultural productivity is becoming increasingly unsustainable in many areas. Soil fatigue, erosion, and loss of fertility have led to stagnant or declining yields, while shortened fallow periods and expanding land pressures limit soil recovery.[10] These trends have also led to marginalization of traditional agroecological practices, which historically helped maintain soil health and farm resilience.

Addressing this soil crisis requires a pivot toward agroecological approaches that emphasize biodiversity, organic inputs, and traditional knowledge. Practices such as crop diversification, composting, agroforestry, mulching, and integrated pest management (IPM) are vital to

6 FAO (2020). The State of Knowledge of Soil Biodiversity, and FAO & WHO (2019). Guidelines on Highly Hazardous Pesticides

7 Vanlauwe et al. (2010). Integrated Soil Fertility Management in Africa: Principles, Practices, and Developmental Process

8 UNEP (2021). A New Deal for Nature: Transforming Agriculture for Soil and Climate Health

9 AGRA (2019). Africa Agriculture Status Report

10 Reij et al. (2009). Agroecological Successes in Africa: What Can We Learn?

rebuilding soil fertility while reducing dependence on external inputs.[11,12] Farmer movements and civil society groups across West Africa are increasingly championing these methods, but broader policy reform, institutional support, and research investment are urgently needed to scale them sustainably.[13]

11 IPES-Food (2016). From Uniformity to Diversity: A Paradigm Shift from Industrial Agriculture to Diversified Agroecological Systems

12 FAO (2020). The State of Knowledge of Soil Biodiversity

13 AFSA (2025): Adaptation,Resilience and Mitigation through Agroecology: A policy brief for enhancing climate adaptation and resilience through agroecology as a holistic approach

The Numbers: Failing Agriculture – More Funding for Hunger

The food crisis is worsening across West Africa and the Sahel. As of early 2025, nearly 34.7 million people in the region are in urgent need of food and nutritional assistance, with projections that up to 47 million could be affected by the next lean season (June–August 2025).[14]

The crisis is driven by a combination of conflict, displacement, economic instability, and climate shocks. Over 10 million people in the region have been forcibly displaced, often losing access to their land and livelihoods. High food prices and low household purchasing power are compounding the crisis, especially in coastal countries like Togo, Senegal, Guinea, Sierra Leone, and Nigeria.[15]

Acute malnutrition rates in the region range between 10% and 14% in many areas, exacerbating health and development challenges. As of late 2024, over 620,000 people in Togo are facing severe acute food insecurity (IPC Phase 3+), with projections showing little improvement through mid-2025 if no additional assistance is provided[16,17]. The Savanes region in the north is the worst affected, with emergency levels of acute food insecurity.[18] Nigeria alone has over 30 million people facing acute food insecurity, with conflict-affected states like Borno, Yobe, Zamfara, and Sokoto most affected.

Urban food insecurity in Togo is driven by low purchasing power and high food prices, with over 88% of surveyed households in Lomé citing these as primary barriers to food access. Physical proximity to markets and the high cost of animal products and tubers also play significant roles.[19] Other underlying causes include poverty, low agricultural productivity, population growth, land degradation, and gender inequality in resource access. External shocks like climate events, economic instability, and spillover from Sahelian conflicts further exacerbate the situation.[20]

Across West Africa, increasing dependence on food imports weakens national control over food systems. Countries remain vulnerable to external shocks, while local agriculture struggles due to underinvestment, climate challenges, and post-harvest losses. Strengthening agroecology, improving storage, and investing in local production are essential to regaining food sovereignty. The monetary value of food imports is substantial and projected to nearly double continent-wide by 2025.

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14 Business Insider Africa (18 March 2025): ECOWAS urges swift action as West Africa faces escalating food crisis. https://africa.businessinsider.com/local/markets/ecowas-urges-swift-action-as-west-africa-faces-escalating-food-crisis/94gnh09

15 Word food Programme (20 December 2024): West and Central Africa faces deepening food crisis - UN agencies call for enhanced humanitarian action and lasting hunger solutions. https://www.wfp.org/news/west-and-central-africa-faces-deepening-food-crisis-un-agencies-call-enhanced-humanitarian

16 World Food Program (13 January 2025): WFP Togo Country Brief, November 2024. https://reliefweb.int/report/togo/wfp-togo-country-brief-november-2024

17 World Food Program (28 February 2025): WFP Togo Country Brief, February 2025. https://reliefweb.int/report/togo/wfp-togo-country-brief-february-2025

18 ibid

19 Nabagou, M., & Kpotchou, K. (2025). Food Accessibility in Grand Lomé, Togo: A Household Perception Analysis. *Research on World Agricultural Economy*, *6*(2), 47–67. https://doi.org/10.36956/rwae.v6i2.1428

20 Togo Country Strategic Plan (2022 – 2026). https://executiveboard.wfp.org/document_download/WFP-0000139021?_ga=2.86675486.749134770.1751578278-236970149.1751412658

This trend reflects structural challenges in local food production and growing demand, making the region vulnerable to global market shocks and emphasizing the need for agricultural development and food system resilience.

Challenge	Key Issues	Impact	ECOWAS Response
Food Insecurity	47 million at risk; conflicts; malnutrition rates 10-14%; climate shocks	Hunger, malnutrition, reduced labor productivity, social instability, high food import	Regional Food Security Reserve; calls for urgent action and sustainable resilience building
Market Instability	High and volatile food prices; inflation; limited funding; supply chain disruptions	Reduced food access; income volatility for farmers and consumers	Improved food reserves management; increased sovereign financing; coordinated regional strategies
Environmental Degradation	Droughts, floods, soil erosion, desertification, deforestation; resource depletion	Lower agricultural productivity; long-term food insecurity	Promotion of sustainable agriculture; resilience measures; environmental conservation efforts

Historically food has always been the component with the largest contribution to headline inflation, followed by energy and transportation. West African countries have experienced a significant and growing dependence on food imports over the past decades, with notable trends in volume and value:

- **Volume and value of imports:**

  In 2009, West Africa imported about 15 kg of rice per inhabitant, up from 11.5 kg in 1980, indicating increasing reliance on imported staples like rice and wheat. Cereals represent about 42% of food imports in the region. Despite nearly doubling local production over the last decade, the region still imports about 36% of its rice needs from international markets.[21]

- **Monetary value:**

  Food imports in West Africa reached around $11.8 billion in 2007, dropped slightly to $10.4 billion in 2010, but have generally remained at a high level. More broadly, Africa as a continent spent about $50 billion annually on food imports as of the early 2020s, with projections by Afreximbank indicating this could surge to $110 billion by 2025 without major interventions.[22].

[21] Perspectives on Food Security for West Africa until 2025: FOOD ACROSS BORDERS. Food Security Outlook by USAID-West Africa: https://www.inter-reseaux.org/wp-content/uploads/Soule_-_Food_Security_Outlook.pdf

[22] Leadership Newspaper (13 July 2024): Afrexim Warns African Countries Against High Food Importation Bills. https://leadership.ng/afrexim-warns-african-countries-against-high-food-importation-bills/

- **Trend:**
  The trend shows a steady increase in food import dependency, driven by population growth, urbanization, low agricultural productivity, and economic factors. The increase in imports is particularly pronounced for cereals such as rice and wheat, which are staples in many West African diets. The region's agricultural production, while growing, has not kept pace with demand, leading to persistent import needs.

Mali

- Imports over $1 billion in agricultural goods, including rice, cereals, palm oil, and fertilizers as at 2022.[23]
- Local agriculture remains underdeveloped due to conflict, inflation, and infrastructure gaps.
- Mali's dependency on imported staples undermines food security despite government efforts to boost local production.

Nigeria

- Over 26.5 million people faced food shortages. Nearly 31.8 million Nigerians are already at risk of acute food insecurity.[24]
- The Food inflation rate in June 2024 was 40.87% on a year-on-year basis, which was 15.62% points higher compared to the rate recorded in June 2023 (25.25%). The most recent data indicates a year-on-year food inflation rate of 21.79% in March 2025 driven by insecurity, subsidy removal, and climate shocks.[25]
- Nigeria's food importation rose by 16 per cent, year-on-year, to $2.5 billion in 2024 from $2.13 billion in 2023. In 2022 alone, food imports hit ₦1.9 trillion, and post-harvest losses reached up to 50%.[26]
- Nigeria still imports large amounts of rice, fertilizer, pesticides, and wheat.

Senegal

- As at 2020, agriculture employs 30% of the population but contributes only 16% to GDP.
- The country imports 70% of its food, including rice, wheat, sugar, dairy, and vegetables.[27]

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23 Xinshen D et al (2022): Mali: Impacts of the Ukraine and Global Crises on Poverty and Food Security. COUNTRY BRIEF 7. IFPR Global Crisis Country Series. Version: July 7, 2022

24 FAO (12/09/2024): FAO warns of worsening food insecurity in Nigeria as devastating floods continue. https://www.fao.org/nigeria/news/detail-events/en/c/1710177/

25 Trading Economics (Accessed June 15, 2025): Nigeria Food Inflation. https://tradingeconomics.com/nigeria/food-inflation

26 Vanguard Newspaper (20 May 2025): Nigeria's food imports surge 16% to $2.5bn. https://www.vanguardngr.com/2025/05/nigerias-food-imports-surge-16-to-2-5bn/

27 International Trade Administration (2024-05-06): Senegal - Agricultural Sector. https://www.trade.gov/country-commercial-guides/senegal-agricultural-sector

Togo

- In 2024, Togo's food imports were valued at US$2.97 billion, according to the United Nations COMTRADE database. In 2025, the Food market is projected to reach US$2.43 billion, with an expected annual growth of 6.48%.[28]
- Rising urbanization and global price volatility (e.g., due to the Ukraine war) worsen dependence.

Ghana

- Around 30% of food is imported, including 55% of rice consumption.
- In 2022, agricultural imports cost $2.6 billion. In 2024, Ghana's food import bill reached GH₵38.95 billion (approximately $2 billion USD). Over 50% of food in Ghana was imported in 2024.[29]
- Imports mostly include poultry, dairy, processed foods, and U.S. consumer products.

Côte d'Ivoire

- Côte d'Ivoire, despite being a leading producer and exporter of several agricultural products like cocoa and cashew nuts, relies on imports for certain food items.
- Imports about 40% of its food, with rice and wheat being key items.
- Agricultural import bill was around $1 billion in 2022.
- Urbanization fuels demand for imported and processed foods.

Niger

- Imports 20-30% of its staple food requirement, mainly rice, wheat, and oil.
- In 2021 Niger's agricultural imports totaled $500 million. In 2023, Niger imported cereals valued at about US$310.8 million. In a typical year, the country imports around 400,000 tons of cereals (millet, sorghum, maize, rice), with additional imports during deficit years.[30]
- Harsh climate and poor infrastructure limit local food production.

The Breakup of ECOWAS, following the exit of Burkina Faso, Mali, and Niger, poses serious risks to food security and regional cooperation in West Africa. These landlocked Sahelian countries now face higher tariffs and logistical barriers for importing and exporting food, as they lose preferential access to key coastal ports in neighboring ECOWAS states. This

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28 Trading Economics (Accessed June 2025): Togo Imports by Categorizes in 2024. https://tradingeconomics.com/togo/food-imports-percent-of-merchandise-imports-wb-data.html

29 Food and Beverage West Africa (March 15, 2025): Over Half of Ghana's Food in 2024 Was Imported - Ghanian Statistical Service. https://www.fab-westafrica.com/over-half-of-ghanas-food-in-2024-was-imported-ghanian-statistical-service-#:~:text=Over%20Half%20of%20Ghana's%20Food,dependence%20on%20foreign%20food%20supplies.

30 FEWS NET (Accessed June 2025): Niger Summary of Market and Food Security Situational Analysis. https://fews.net/west-africa/niger/food-security-outlook/february-2012

disruption has already led to noticeable spikes in food prices, such as the sharp increase in rice costs in Niger, and is expected to make basic food items less affordable for millions. In Niger, for instance, the price of rice rose 8%-38% in the four months after sanctions were imposed in July 2023.[31]

At the same time, non-sanctioned ECOWAS countries were also badly affected; Benin experienced a dramatic fall in its revenues at the port of Cotonou, the main transit source for goods going into Niger, while the sanctions on Mali badly hurt revenue generation at the port of Dakar. In addition, the exit will create challenges for processors' access to raw materials such as wheat flour and edible oils, which much of the region requires to be fortified with iron, vitamin A, and other nutrients. For instance, in 2022, more than 80% of Mali's imports of wheat flour came from Senegal.[32] Similarly, Burkina Faso cannot meet consumption demand for edible oils based just on domestic production, requiring it to import about half of its palm oil from Côte d'Ivoire.[33]

The fragmentation of the ECOWAS customs union also threatens broader economic integration and undermines collective efforts to address food insecurity, infrastructure, and agricultural development. Without the benefits of regional cooperation, the AES countries and their neighbors are more vulnerable to supply shocks, market volatility, and the effects of climate change. Moreover, the risk of smuggling, corruption, and insecurity may rise as trade regulations diverge, further destabilizing the region. Overall, the ECOWAS breakup is likely to exacerbate hunger and malnutrition, weaken economic ties, and make coordinated responses to food and security challenges far more difficult for West Africa.

How Agroecology Can Bridge Food Insecurity Gaps

Adopting agroecology offers countries a powerful pathway to address food insecurity by transforming food systems to be more resilient, inclusive, and sustainable. Agroecology can help bridge food insecurity gaps through:

1. Enhancing Food Availability and Diversity

- **Crop Diversification:** Agroecological practices encourage growing a variety of crops, which increases total yields and ensures a more stable food supply. Studies show that diversified farms are more productive overall than monocultures, especially when external inputs are limited.[34]
- **Agrobiodiversity:** By integrating different plant species, livestock, and agroforestry, agroecology boosts resilience to pests, diseases, and climate shocks, reducing the risk of total crop failure.[35]

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31 World Bank (30.06.2025): Monthly food price estimates by product and market - Niger, 79 markets, 2007/01/01-2025/06/01, version 2025-06-30. Niger, 2007 – 2025.

32 Trade Map (Accessed 15.06.2025)

33 Ibid

34 European Union (2024): What agroecology brings to food security and ecosystem services: a review of scientific evidence. https://knowledge4policy.ec.europa.eu/publication/what-agroecology-brings-food-security-ecosystem-services-review-scientific-evidence_en

35 Dagunga G, Ayamga M, Laube W, Ansah IGK, Kornher L and Kotu BH (2023) Agroecology and resilience of smallholder food security: a systematic review. Front. Sustain. Food Syst. 7:1267630. doi: 10.3389/fsufs.2023.1267630

2. Improving Food Access and Farmer Incomes

- **Reduced Input Costs:** Agroecology minimizes reliance on expensive chemical fertilizers and pesticides, making farming more affordable for smallholders and increasing their net incomes.[36]
- **Local Market Strengthening:** By supporting local food systems and short supply chains, agroecology helps communities access fresh, nutritious foods and keeps more value within rural economies.[37]

3. Supporting Nutrition and Food Utilization

- **Dietary Diversity:** Households practicing agroecology often consume a wider range of foods, improving nutrition and dietary quality. For example, in West Africa and Malawi, agroecological interventions have led to more diverse diets and better child nutrition outcomes.[38]
- **Agroforestry and Livestock Integration:** These practices provide additional sources of fruits, vegetables, meat, and milk, further enhancing household nutrition.[39]

4. Building Resilience and Food Stability

- **Climate Adaptation:** Agroecological systems are better equipped to withstand droughts, floods, and other climate shocks due to improved soil health, water management, and crop diversity.[40]
- **Community Empowerment:** Agroecology's bottom-up approach empowers farmers, especially women and marginalized groups, to co-create solutions, share knowledge, and build local resilience networks.

5. Real-World Examples

Country/Region	Agroecological Practice	Impact on Food Security
Cuba	Urban/peri-urban agroecology	Increased local food production, reduced import reliance

36 Ali , I. I. (2024). The Role of Agroecology in Food Security in Developing Countries. *International Journal of Advanced Natural Sciences and Engineering Researches*, *8*(9), 455–462. Retrieved from https://as-proceeding.com/index.php/ijanser/article/view/2172

37 FAO (): Agroecology Knowledge Hub: Preventing hunger while building peace with agroecology. https://www.fao.org/agroecology/database/detail/en/c/1430292/ Full text available at: http://www.ipsnews.net/2021/06/preventing-hunger-building-peace/

38 Opcit

39 Opcit

40 Ali , I. I. (2024). The Role of Agroecology in Food Security in Developing Countries. *International Journal of Advanced Natural Sciences and Engineering Researches*, *8*(9), 455–462. Retrieved from https://as-proceeding.com/index.php/ijanser/article/view/2172

Malawi	Intercropping, participatory research	Improved dietary diversity, child nutrition, and resilience.
Mali, Burkina Faso	Agroforestry, integrated pest management	Higher yields, restored soils, improved livelihoods.
Guatemala	Crop diversification, organic inputs	Higher agrobiodiversity, increased incomes, better food access.

6. Addressing Root Causes of Food Insecurity

- **Reducing External Dependency:** Agroecology builds food sovereignty by making communities less dependent on imported food and external inputs, which is crucial during global supply disruptions.[41]
- **Restoring Ecosystems:** By improving soil fertility, conserving water, and protecting biodiversity, agroecology addresses environmental degradation—a key driver of food insecurity in vulnerable regions.[42]

7. Bottom-Up, Inclusive Development

- **Farmer-Led Innovation:** Agroecology relies on local knowledge and participatory approaches, ensuring that solutions are adapted to specific contexts and needs.[43,44]
- **Social Equity:** It promotes the inclusion of women, youth, and indigenous peoples, strengthening social cohesion and community resilience.[45]

The Challenge with Agroecology Movement and Practice in ECOWAS Region

Agricultural systems in West Africa are under increasing pressure due to climate change, soil degradation, loss of biodiversity, and growing food insecurity. Despite decades of interventions, the region continues to struggle with low agricultural productivity, dependence on food imports, and the erosion of traditional knowledge systems. In response to these

41 Opcit

42 Opcit

43 Guy F, Matthias G, Maria-Luisa P, and Nadine A (2024): What agroecology brings to food security and ecosystem services: a review of scientific evidence. DeSIRA-LIFT KNOWLEDGE BRIEF #4 Agroecology. https://www.desiralift.org/wp-content/uploads/2024/02/DeSIRA-LIFT-Knowledge-brief4-Agroecology.pdf

44 The WaterNetwork (2019): Agroecology in Africa - 33 Case Studies. https://thewaternetwork.com/article-FfV/agroecology-in-africa-33-case-studies-wOHXPYzBv-udnK1KFitd4w

45 Opcit

challenges, agroecology has emerged as a viable alternative that promotes sustainable farming practices rooted in ecological principles, cultural knowledge, and social equity.

While agroecological practices have shown promise in enhancing resilience, improving yields, and strengthening food sovereignty, their widespread adoption across the region remains limited. Key barriers include lack of evidence-based documentation, limited policy support, inadequate awareness, and insufficient access to local inputs such as indigenous seeds.

To support a transition toward sustainable agriculture, the project titled “Strengthening the Adoption Process of Agroecological Practices in West Africa” aims to document the effectiveness of agroecology and promote its integration into national and regional agricultural strategies.

The project seeks to document agroecological practices and their contributions to food sovereignty, environmental resilience, seed autonomy, and farmers’ livelihoods. This effort is part of a broader regional push to integrate agroecology into national and ECOWAS-level agricultural strategies. The evidence generated will inform advocacy and policy interventions aimed at creating enabling environments for agroecological transformation.

Justification for the Study

In a region grappling with declining soil fertility, food dependency, and climate shocks, agroecology offers a holistic alternative rooted in traditional knowledge, sustainability, and community participation. However, the lack of rigorous, context-specific, and accessible data continues to constrain uptake and policy buy-in.

This study is therefore critical to:

- Generate concrete evidence of the effectiveness of agroecological practices.
- Address gaps in knowledge, particularly regarding economic, nutritional, and ecological benefits.
- Provide strategic recommendations for scaling agroecology through inclusive policies and targeted support.
- Support CSOs, governments, and development partners with robust data for advocacy and decision-making.

Objectives of the Study

The main objective of this assignment is to generate robust, evidence-based documentation on agroecological practices in West Africa, with a particular focus on Togo and the ECOWAS region. The assignment seeks to:

- Provide a detailed mapping of agroecological actors, including farms and civil society organizations.
- Identify and analyze successful practices, challenges, and enabling conditions.

- Assess the impact of agroecology on food sovereignty, resilience, productivity, and farmer well-being.
- Formulate practical recommendations for stakeholders including policymakers, development partners, and farmers.
- Develop an accessible advocacy and awareness brochure tailored to different audiences.

Scope of the Study

This assignment focuses primarily on Togo and draws relevant insights from other ECOWAS member states where applicable. The scope covers both qualitative and quantitative data collection methods, including literature review, interviews, and field visits.

Key limitations may include:

- Geographic and logistical constraints in accessing remote farming communities.
- Variability in the definition and application of agroecological practices across countries.
- Time constraints for data collection and validation within the 45-day timeline.
- Possible limitations in availability or reliability of baseline data and records.

Methodology

Overview of Methods Used

The methodology for this assignment adopted a mixed-methods, participatory approach that integrates both qualitative and quantitative techniques. The research will triangulate data from multiple sources to ensure credibility and comprehensiveness. Key methods include:

- **Literature Review:** A desk review of existing studies, reports, policy documents, and project evaluations related to agroecology in Togo and the wider ECOWAS region was done. This provided a foundational understanding of the current status, and gaps.
- **Key Informant Interviews (KIIs):** Semi-structured interviews were conducted with a diverse group of stakeholders, including agroecological farmers, civil society organizations (CSOs), researchers, policymakers, and donor agencies.
- **Field Visits and Observations:** On-site visits to selected farms and agroecological project locations were done for firsthand observation of practices, technologies, and community engagement strategies.

Data Collection Tools and Techniques

The following tools and techniques were used to gather data:

- **Interview Guides and Questionnaires:** Custom tools was developed to guide interviews with farmers, CSO leaders, extension officers, and government

representatives. These included both open-ended and closed questions to elicit rich, layered responses.

- **Checklists for Field/Documented Observation:** These helped to systematically capture agroecological techniques, farm layout, seed systems, water management practices, and community participation for onsite and report analysis.
- **Document Analysis Framework:** This helped to systematically extract and synthesize relevant content from literature and policy documents.

Sampling and Participant Selection

A purposive and snowball sampling strategy was employed to ensure diverse representation of agroecological actors:

- **Geographic Coverage:** Focus was on selected regions in ECOWAS specifically Nigeria and Togo, complemented by examples from other ECOWAS countries where applicable.
- **Stakeholder Groups:** These included smallholder farmers, women's cooperatives, youth groups, CSOs, agroecology networks, researchers, and public officials.
- **Sample Size:** While not fixed, the sample was representative enough to allow for the identification of patterns, impact drivers, and barriers to scale.

Efforts was be made to ensure gender balance and inclusion of marginalized voices throughout the process.

Ethical Considerations

All activities were conducted with full respect for ethical research standards. Specifically:

- Informed Consent: Participants were informed of the purpose of the research, how the data will be used, and their right to withdraw at any time.
- Confidentiality: Personal data and sensitive information was anonymized or securely stored.
- Respect for Local Norms: The research was carried out in ways that respect cultural values, local languages, and traditional knowledge systems.
- Do No Harm Principle: The work was designed to minimize risks or disruptions to communities and stakeholders engaged.

Structure of the Report

The report is structured into the following sections:

✓ Introduction – Provides context, objectives, scope, and structure of the report.

- ✓ Methodology – Describes the research methods and data collection processes used.
- ✓ Mapping of Key Actors – Presents an inventory and analysis of agroecological practitioners and promoters.
- ✓ Agroecological Practices in Use – Explores the methods and innovations being implemented on the ground.
- ✓ Impact Analysis – Assesses how agroecology has influenced productivity, resilience, food security, and livelihoods.
- ✓ Challenges and Constraints – Identifies barriers to adoption and implementation.
- ✓ Opportunities and Enablers – Highlights entry points for scaling up agroecology.
- ✓ Recommendations – Offers strategic and operational guidance for stakeholders.
- ✓ Conclusion – Summarizes the key findings and implications.
- ✓ Annexes – Includes tools, raw data, lists of stakeholders, and other relevant documents.
- ✓ Advocacy Brochure (Attached) – A summarized, visually engaging tool for awareness and action.

AGROECOLOGY & MAPPING OF KEY ACTORS

What Is Agroecology?

Agroecology:

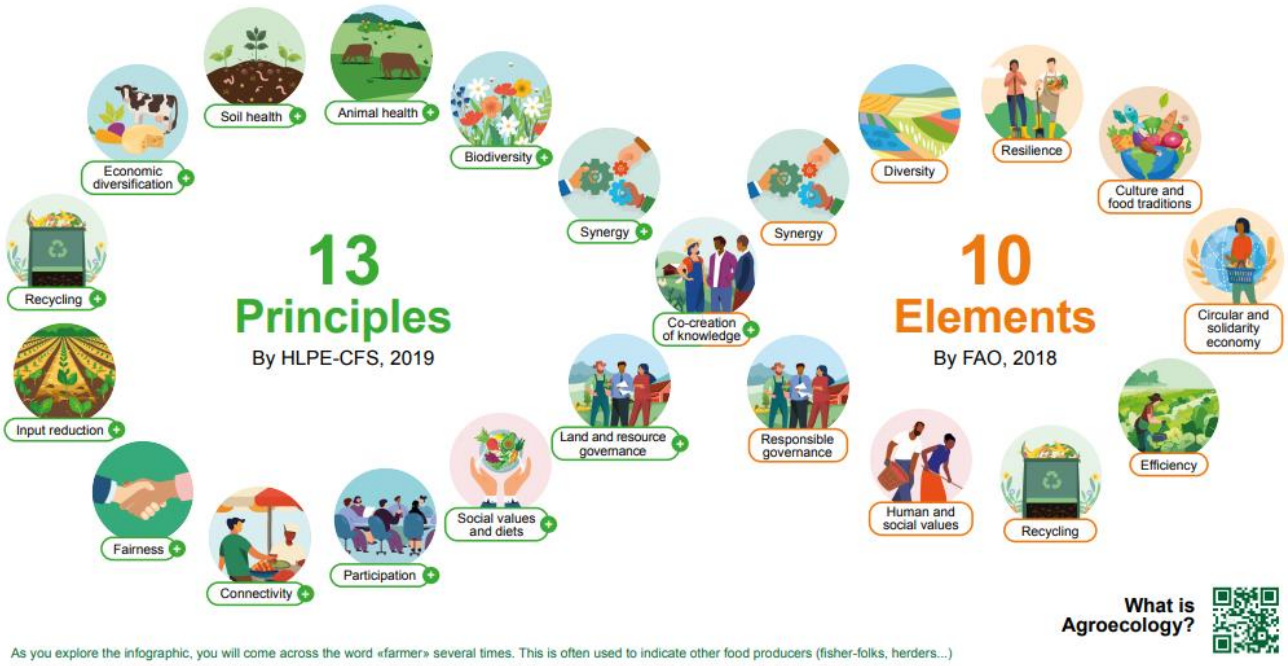
- Applies ecological principles (e.g., biodiversity, nutrient cycling, natural pest control) to farming.
- Prioritizes local knowledge, farmer innovation, and traditional practices.
- Encourages diversified farming systems over monocultures.
- Links production with social justice, food sovereignty, and environmental sustainability.
- Promotes short value chains, local markets, and reduced dependence on external inputs (e.g., chemical fertilizers, pesticides, hybrid seeds).

The dimensions of agroecology encompass environmental, socio-cultural, economic, and political aspects. Environmentally, it emphasizes biodiversity, soil and water conservation, and integrated pest management. Socio-culturally, it respects local food traditions, promotes social values, and empowers marginalized groups such as women and youth.

Economically, it aims to reduce dependency on external inputs, enhance efficiency, and promote circular and solidarity economies. Politically, it supports responsible governance and participatory decision-making to create enabling environments for sustainable food systems.

The FAO identifies **10 key elements** of agroecology:

1. **Diversity** – Mixed cropping, agroforestry, and integration of livestock.
2. **Synergies** – Enhancing interactions between plants, animals, and soil.
3. **Efficiency** – Reducing waste, optimizing nutrient and water use.
4. **Resilience** – Withstanding climate shocks and economic crises.
5. **Recycling** – Using local organic materials to reduce external inputs.
6. **Co-creation of knowledge** – Combining science with farmer experience.
7. **Human and social values** – Equity, dignity, and labor rights.
8. **Culture and food traditions** – Respect for indigenous food systems.
9. **Responsible governance** – Inclusive decision-making and land rights.
10. **Circular and solidarity economy** – Local value chains and fair markets.



Agroecology as a practice, has improved economies and food security in several countries by enhancing productivity, reducing costs, and strengthening local food systems through a bottom-up approach. For example, in **Cuba**, the adoption of agroecological practices after the collapse of Soviet support in the 1990s led to a significant increase in urban and peri-urban food production, reducing dependence on imports and improving food availability. This transition empowered small farmers and urban gardeners, creating jobs and boosting local economies.

In Nicaragua, agroecology has helped smallholder farmers increase crop diversity and yields while reducing input costs, improving incomes and resilience to climate shocks. Similarly, in Malawi, agroecological methods such as intercropping and organic soil amendments have enhanced soil fertility and crop resilience, contributing to improved food security and livelihoods.

Agroecology has demonstrated significant economic benefits through increased productivity, reduced input costs, diversified incomes, and job creation, with real examples from Africa and beyond:

- **Ethiopia (Tigray region)**: Adoption of low external input agroecological methods doubled grain yields between 2003 and 2006 while reducing fertilizer use by 40%, directly improving farmers' incomes and reducing expenses.[46]
- **Kenya (Push-Pull system)**: Over 96,000 farmers adopted this pest management agroecology technique, tripling maize yields without chemical insecticides, thus increasing productivity and cutting input costs substantially.[47]

46 The Oakland Institute (Nov 16, 2015): Agroecology Case Studies. https://www.oaklandinstitute.org/report/agroecology-series/agroecology-case-studies

47 Ibid

- **Senegal (Integrated Production and Pest Management)**: Farmers saved about $60 per hectare on pesticides and increased revenue by 61% (about $1,332 per hectare annually) through agroecological pest control and soil fertility practices.[48]
- **Sierra Leone, Tanzania, West Africa**: Transitioning to organic cocoa, pineapple, and cotton farming opened new markets, diversified income sources, and reduced input expenses, enhancing farmers' economic resilience.
- **Niger (Farmer-Managed Natural Regeneration - FMNR):** Restoring over 5 million hectares of degraded land with nitrogen-fixing trees improved soil fertility and moisture retention, enabling farmers to increase crop yields and incomes while rehabilitating landscapes. This project benefits more than 2.5 million people, many of whom have enhanced livelihoods through better harvests and diversified products.
- **West Africa (Organic Cocoa, Pineapples, Cotton**): Thousands of farmers transitioning to organic production accessed premium markets, diversified income streams, and cut input costs, resulting in improved economic resilience and higher earnings.
- **South Africa (Phumulani Agri-village)**: An agroecological model created decent jobs and reliable incomes for 32 households, improved food security, and incorporated green energy and water management, contributing to poverty reduction and economic growth.
- **ProSoil Project (Kenya, Ethiopia, Benin, Madagascar)**: Farms involved in agroecological soil practices showed improved financial outcomes correlated with higher agroecology adoption, demonstrating positive economic impacts across diverse contexts.
- **India (Andhra Pradesh)**: Farmers practicing agroecology increased net income by 49% mainly due to a 44% reduction in input costs, illustrating the profitability and resilience of agroecological systems.
- **Broader Impact:** Studies show households using advanced agroecological practices have better economic performance, higher employment opportunities, and reduced food insecurity. Agroecology also promotes gender equality, giving women more control over income and decision-making, which further strengthens household economies.[49]

48 Ibid

49 Farming Farmers Farm (July 2, 2025): Agroecology boosts employment, rural economies, gender relations in Africa. https://farmingfarmersfarms.com/2022/12/agroecology-boosts-employment-rural-economies-gender-relations-in-africa/

Inventory of Agroecological Farms and Civil Society Organizations (CSOs)

As part of this assignment, an extensive mapping exercise was undertaken to identify the key actors practicing, promoting, and supporting agroecology in Togo and selected ECOWAS countries. The inventory includes:

- **Agroecological farms** (individual and cooperative-based) implementing traditional and modern ecological practices
- **Civil Society Organizations** and farmer groups advocating for agroecology and sustainable food systems
- **Agroecology networks**, seed cooperatives, research institutions, and advocacy platforms

The mapped actors were identified through desk research, field visits, and consultations with local and regional stakeholders.

Description of Actors: Names, Locations, and Activities

The table below provides a sample structure to describe each actor. Here is an extensive mapping of key actors practicing, promoting, and supporting agroecology in Togo and selected ECOWAS countries, based on available information. It includes agroecological farms, civil society organizations (CSOs), farmer groups, networks, seed cooperatives, research institutions, and advocacy platforms.

Name of Actor	Type (Farm/CSO/Network)	Location	Main Activities/Agroecology Practices	Scale of Operation
AB Agrotech Ltd	Organic Farming & Agricultural Services Company	Oyo-Ibadan Express Road, Ilora, Oyo State, Nigeria	Focuses on empowering farmers through education, innovation, and community building; specializes in organic farming, agricultural research, knowledge transfer, agricultural extension, and 100% organic produce	Nigeria (national)
ActionAid West Africa	Civil society organization	West Africa	Advocacy for social justice, gender equality, sustainable development. Promotion of sustainable agricultural practices.	Multiple West African countries
African Centre for Biodiversity (ACB)	Civil society organization	Africa (Continental)	Advocacy for sustainable agriculture, seed sovereignty, biosafety. Promotion of agroecological practices, seed sovereignty, biodiversity protection	Continental networks across Africa

African Organics FZE (Networks in Ghana/Togo)	Organic Producer Network	Ghana & Togo	Supports organic soya and maize production; links to processing hubs; lab-supported quality assurance; organic ecosystem development.	Multinational (Ghana, Togo, Ethiopia)
African Organic Network (AfrONet)	Network	Africa (Continental)	Promotion of organic agriculture, sustainable farming. Organic farming practices	Continental platform uniting National Organic Agriculture Movements
Agrecol Afrique	CSO / NGO	Senegal (West Africa-wide)	Promotes organic/ecological agriculture and social solidarity economy; awareness campaigns; radio programs; forums	Regional with Senegal focus
AgroEknor	Agribusiness (Fonio and Hibiscus farming)	Nigeria	Cultivation of fonio and hibiscus using organic and agroecological practices	Nigeria
Amazon Farms	Organic Farm	Ikoyi, Lagos, Nigeria	Organic vegetable and fruit farming; agroecological practices; farm-to-table supply	Lagos, Nigeria
Agricbuiz without Borders Farm (Slow Food Farm)	Agroecology Farm	Nigeria (Ijebu-Ode)	Mixed vegetables, herbs, medicinal & wild plants; ethical free-range poultry; soil protection and waste management under agroecology guidelines	National
AgroBioCoop	Farmer Cooperative	Kara, Togo	Organic composting, indigenous seed conservation, training for youth	Regional
Agroecological Family Farms and Cooperatives	Farms / Cooperatives	Rural areas in Togo, Mali, Burkina Faso, Senegal	Implementing traditional and modern ecological practices such as crop diversification, agroforestry, organic inputs, intercropping	Local to regional scale, often smallholder-based
Agrofenou Benin	Organic Fertilizer Producers & Community Program	Ouémé Valley - Benin	Produces “AgriBio” compost from by-products, biochar, implements crop rotation; trains youth/women; community extension	Local rural communities
Agro-Revolution Cooperative	Youth-led Market Garden Cooperative	Sèmè-Podji, Benin	Produces vegetables organically on 20 ha (tomato, carrot, peppers), uses ecology-friendly techniques via young agronomists	Local

AgroEco-Togo	Farm/Training Hub	Plateaux - Togo	Intercropping, soil fertility management, agroecology demo plots	Local
AIDMR Farm	Farmers' Organization (FO)	Northern Burkina Faso (47 villages)	Supports subsistence farmers growing sorghum, cowpea, sesame using agroecological techniques such as composting, manuring, zai pits, stone bunds; focuses on soil fertility restoration, resilience to drought, farmer training and technical support.	Northern Burkina Faso, ~700 farmers in 47 villages
Alliance for Action on Pesticide in Nigeria (AAPN)	Alliance/Network	Nigeria	Advocates for pesticide regulation and sustainable food systems; promotes integrated pest management, agroecology and organic agriculture.	National
Alliance for Agroecology in West Africa (3AO)	Network / Coordination Platform	West Africa-wide	Coordination of farmers' organizations, research institutes, NGOs; advocacy; knowledge sharing; agroecological transition support	60+ member organizations across West Africa
Alliance for Food Sovereignty in Africa (AFSA)	Alliance of civil society actors	Africa (Continental)	Advocacy for food sovereignty, agroecology, smallholder farmers' rights. Promotion of agroecological practices, soil conservation, organic farming	30 active members across Africa
Amis Terre / CADR (Friends of the EarthTogo)	Agroecology Demonstration Center	KumahKonda region, Togo	Training in natural fertilizers/pesticides (e.g., Bokashi); crop rotation; mulching; community workshops	Local demonstrations
ASPSP (Association of Peasant Seed Producers)	Farmer Association	Senegal	Focuses on indigenous seed production, community seed banks, chemical-free cultivation, and farmers' breeding programs. Strong training in seed multiplication and sharing systems.	National
Association Foi et Justice to environmental preservation	Youth-led Agroecology Enterprise	Cameroon	Promotes agroecological practices to improve soil fertility, rehabilitate degraded land, and increase food security. Implements Farmer Field Schools training 2,500 smallholder families in sustainable land management, crop rotation, organic fertilization, and nutrition education.	

Association des Femmes Agricultrices de Sokodé	Women's Group	Centrale Region	Agroforestry, local market access, community seed banks	Local
Association Nourrir Sans Détruire (ANSD)	Non-profit organization	Mali	Promotes agroecology and food sovereignty, especially in the face of climate change. Fights poverty, hunger, and social injustice through agroecological practices. Implements farmer training, supports rural development, and advocates for sustainable land management. Engages in community mobilization, capacity building, and policy advocacy for agroecological transition.	Mali (focus on rural and disadvantaged communities)
Association of Peasant Seed Producers (ASPSP)	Organization	Senegal	Promotes indigenous seeds, seed sovereignty, and agroecology; opposes GMOs; supports seed conservation.	National
Association pour la Promotion de l'Agriculture Biologique au Sénégal (APAB)	NGO	Senegal	Promotes organic farming and sustainable agriculture; advocates for agroecological policies and farmer training.	National
Association pour le Développement et la Transformation (ADT-Togo)/Friends of the Earth Togo	Civil Society Organization (CSO)	Togo (national)	Advocacy for food sovereignty and agroecology; capacity building; networking local agroecological leaders; promoting sustainable family farming	National, with regional links to ECOWAS and Africa-wide networks
AVSF Cocoa Project	FairTrade & Organic Cocoa Coop	Akébou region, Togo	Training in organic cocoa farming & certification; cooperative fermenting/drying; quality control and market linkages	Local/regional (~650 households)
AVSF–AFSV Equity Programme	Agroecology & FairTrade Supply Chain	Multiple regions	Supports cooperatives in Fair Trade certification, professionalisation, agroecological transition; funded €8 m	Multi-country (Togo, Benin, Ghana, Côte d'Ivoire)
Babban Gona	Farmer Support Network / Social Enterprise	Nigeria	Provides agronomy training, finance, inputs, and marketing support via trust groups; agroecology components include soil health and IPM as part of regenerative approach.	15 Nigerian states

Be-The-Help Foundation	Agroforestry Non-profit Foundation	Abuja, Nigeria	Hands-on agroforestry training, native tree planting - afforestation, intercropping systems, sustainable land-use, community engagement in soil restoration and biodiversity enhancement.	Local (Abuja) with pilot projects and training collaborations
Bio-Benin Farm & Training Center	Organic Farm + Youth Education	Natitingou, Benin	Grows vegetables, poultry, rabbits; teaches craft beer brewing, fruit-juice processing, farm-to-table culinary skills; youth empowerment	Local
CARTO Rural Training Center	Agroecology training center	Togo (region unspecified)	Training in soil cover cropping, livestock integration, agroforestry, beekeeping, natural pesticides, drip irrigation	(Local program mentioned)
Centre for Indigenous Knowledge and Organizational Development (CIKOD)	Civil society organization	Ghana	Promotes indigenous knowledge, sustainable food systems, and agroecology; opposes GMOs; supports traditional farming.	National
Choco Togo Cooperative	Organic Cocoa Cooperative	Togo	Organic cocoa sourcing/processing, fair-trade chocolate production	National and export
Civil Society Organizations (15 pilot projects under GCCA+ WA and Agroecology Program)	CSOs / Farmer Groups	11 ECOWAS countries including Benin, Ghana, Niger, Nigeria, Sierra Leone	Implementing climate-smart agroecological practices; capacity building; promoting sustainable family farming	Regional pilot projects covering thousands of households
CNOP (Coordination Nationale des Organisations Paysannes du Mali)	Farmer Organization	Mali	Promotes community seed banks, low-input agriculture, crop diversification, and advocacy against GMOs. Also supports use of organic compost, mulching, and drought-resilient local crops.	National
Coalition for the Protection of African Genetic Heritage (COPAGEN)	Coalition	West Africa	Opposition to GMOs, seed sovereignty, food sovereignty advocacy. Promotion of agroecology and seed sovereignty	10 West African countries
Coordination Nationale des Organisations Paysannes du Mali (CNOP)	Network	Mali	Advocates for peasant rights and sustainable agriculture; promotes agroecological and sustainable practices.	National

CRASTEDA ONG	NGO / Research and Technical Support	Benin (national)	Provides technical assistance and research support on organic farming and agroecology; supports farmer groups with training and applied research; involved in ecological organic agriculture initiatives; promotes sustainable soil fertility management and seed conservation.	National coverage in Benin
Crops4HD (Crops for Healthy Diets: Realizing the Potential of Neglected and Underutilized Species)	Multi-stakeholder Project (NGOs, research institutes, farmer organizations, governments)	Regional (focus countries: Nigeria, Kenya, India, Bolivia)	Promotes neglected and underutilized crops for healthy diets and resilient agroecological systems. Activities include participatory research, farmer field schools, capacity building, seed systems strengthening, policy advocacy, and market access for diverse, climate-resilient crops. Agroecology practices: crop diversification, agroforestry, low-input farming, seed conservation, and community-based knowledge exchange.	Multi-country: Nigeria (West Africa), Kenya (East Africa), India, Bolivia (Latin America)
CTOP (Togolese Coordination of Peasant Organizations and Agricultural Producers)	Farmer Federation	Togo	Promotes organic farming techniques, soil fertility restoration, composting, rotation cropping, and reforestation/agroforestry to combat degradation. Strong on land access and seed rights.	National and Regional
Danyi Permaculture Farm (FAGAD)	Permaculture Organic Farm	Danyi, Plateaux region - Togo	Permaculture design; fruit and medicinal tree planting; goat, chicken, rabbit, duck rearing; beekeeping; composting; volunteer-based agroforestry education (aliore.org, agroecologymap.org)	Local – pilot farm, volunteer-driven
Dynamics for an Agroecological Transition in Senegal (DyTAES)	Network	Senegal	Promotes agroecological practices; policy advocacy for agroecology transition; farmer training and awareness.	National
ECOWAS (via Agroecology Programme in West Africa - PAE)	Regional Institution	West Africa-wide	Supports agroecological transition; promotes climate-smart agriculture; sustainable intensification; family farm support	Regional policy and program implementation

Ekofoda Resource Center	Agroecological Training Center	Tchébébé, Central Plateaux - Togo	Resource/farmer training in climate-smart agroecology; 5 ha school fields; improved hen husbandry; drip irrigation, beekeeping	Regional reach
EOA Initiative – OBEPAB	National Organic Cotton Project	Across Benin	Trains cotton farmers in organic pest control, soil fertility, crop rotation, intercropping, biopesticides; supports PGS	National (~5000 certified farmers)
FAPD (Federation of Agro-Pastors of Diender)	Farmer Organization	Senegal (Niayes)	Implements agroecological training, composting, manure-based fertilization, intercropping, and chemical-free vegetable production. Promotes agro-pastoral integration and soil fertility management.	Local
Farm Organics Nigeria Limited	Organic Farm / Agribusiness	Gwarinpa Estate, Kubwa, Abuja, Nigeria	Organic crop and livestock production; promotes sustainable farming practices; supplies organic produce	Farm Organics Nigeria Limited
FEAB (FarmSchool Agroecology & Bioenergy)	FarmSchool R&D Center	Dalavé, ~30 km from Lomé - Togo	Integrated agrolivestock systems: ducks, goats, hens, fish; composting accelerators (2 weeks); biodigesters for biogas; solar dryers; essentialoil & plastic recycling technologies	Local with regional training outreach
Fédération des Organisations de Producteurs Agricoles du Bénin (FOPA-Benin)	Farmers' federation	Benin	Advocates for farmers' rights and sustainable agriculture; promotes organic crops and agroecological methods.	National
Fédération Nationale pour l'Agriculture Biologique (FENAB)	Federation/Network	Senegal	Promotes organic and ecological agriculture, food sovereignty, and R&D in agriculture. Formed a national platform for ecological/organic agriculture uniting 200+ organizations across 4 agroecological zones. Increased adoption and awareness of organic practices among producers and consumers.	Senegal (Casamance, Center-East, Peanut Basin, River Valley)
Federation of Agro-Pastors of Diender (FAPD)	Peasant organization	Senegal	Promotes sustainable agriculture, livestock management, food security; trains farmers in agroecological practices.	Niayes area, Senegal

Ferme Aménopé	Permaculture Micro-Farm & Education Center	Agou-Nyogbo, Plateaux Region, Togo	Implements agroecological practices including polyculture gardening, fruit and medicinal tree planting, beekeeping, composting, and small livestock (goats, chickens, rabbits). Offers volunteer-based training in permaculture and agroforestry techniques, and community education programs.	Local (Plateaux Region)
FiBL-supported AEC Cooperative	Agroecological Community Coop	Southern Benin	Experimental plots for intercropping, agroforestry, cover crops, biopesticides; trains ~200 households; farm experiments	Local south Benin
Food Sovereignty Ghana (FSG)	Civil society organization	Ghana	Advocates against GMOs; promotes indigenous seeds, agroecology, and food sovereignty.	National
FOPA-Benin	Farmer Federation	Benin	Promotes organic composting, natural pesticide use, indigenous crop varieties, and soil conservation techniques. Supports farmer trainings and local market access.	National
Environmental Rights Action/Friends of the Earth Nigeria	NGO	Nigeria	Advocates against GMOs; actively promotes agroecology and food sovereignty	National
Friends of the Earth International (Support role)	International CSO	Global, with projects in Togo	Supporting national partners like FOE-Togo in advocacy, capacity building, and networking on agroecology and food sovereignty	International support
Fruitieveggie Farmacy Limited	Organic Farm / Agribusiness	Nigeria	Organic fruit and vegetable production; promotes nutrition and sustainable farming	Nigeria
GBioS Agroecology Platform (University of Abomey-Calavi)	Academic Agroecology Initiative	Cotonou, Benin	Trains farmers (~2,000) in biochar, neem oil, organic fertilizers; school field demonstrations; academic monitoring	Regional within Benin

Ghana Institute of Organic Farming (GIOF)	Training and Research Institute	Sirigu, Upper East Region, Ghana	Provides formal education and training in organic farming and sustainable agriculture; operates a demonstration farm; offers farmer workshops and extension services; promotes organic vegetable production, soil fertility management, and climate-smart agroecology; supports farmer empowerment and youth education.	Upper East Region, Ghana; expanding influence nationally through training and extension
Global Landscapes Forum (GLF) Bawku and Ibadan Chapter	Network/Forum	Ghana & Nigeria	Promotes sustainable landscape management, food sovereignty, and agroecology; reduces agrochemical use; supports composting and biodiversity.	Bawku (Ghana) & Ibadan (Nigeria)
Gotomo Farms and Allied Services	Integrated Agribusiness / Organic Farm	Yaguru village, off Dikko junction, Abuja-Kaduna	Organic and integrated crop and livestock farming including grains, sesame, oil seeds, cassava, orchard fruits, vegetables; greenhouse and irrigation systems; animal husbandry; food processing; commodity trading and export; youth training in sustainable agriculture	Niger, Kebbi, Kaduna States; national reach via export and training
Granja de Pessubé Women's Market Gardening Association	Women's Farmers' Cooperative	Bissau, Guinea-Bissau	Women-led organic market gardening; production of diverse vegetables using agroecological methods; seed saving; community training and empowerment; promotes food sovereignty and sustainable livelihoods	Local community in Bissau
Health of Mother Earth Foundation (HOMEF)	Ecological think tank/NGO	Nigeria	Advocates against GMOs; promotes food sovereignty and agroecology including through farmer trainings and set up of demonstration farms; advocates for an agroecology policy.	Nigeria and Africa

Jams Organic Farms & Kitchens	Organic Farm & Food Enterprise	Kuje, Abuja, Nigeria	Nature integrated agroecology farm, Organic and greenhouse farming, free-range livestock and insect rearing, composting, cover cropping, crop rotation, and educational outreach through wellness programs and farm kitchens. Food processing, seed bank development and market supply for organic food.	Local (Kuje) with nationwide outreach through produce and education
Jeunes Volontaires pour l'Environnement (JVE)	Youthled Agroecology Campaign	Togo	Urban gardens; seed-saving; natural pesticides/fertilisers; community dialogues; banned glyphosate; agroecology advocacy	National
Joint Action for Farmers' Organisations in West Africa (JAFOWA)	Network / CSO Support	Burkina Faso, Ghana, Senegal	Supports farmers, pastoralists, fishers; grants; knowledge sharing; capacity development; promotes ecological solutions; women and youth leadership	Multi-country regional initiative
JVE-Togo (Jeunes Volontaires pour l'Environnement)	CSO	Lomé, Togo	Agroecological advocacy, farmer capacity building, policy engagement	National
KCOA – KHWA (Knowledge Centre for Organic Agriculture - West Africa Hub)	Knowledge Hub / Network	Nigeria + West Africa	Develops knowledge products, trains multipliers, farmers' field schools, organics demonstration plots, media outreach, organic weekends & market linkages.	National + Regional (5-country cluster)
La Via Campesina Africa	Farmer Movement	West Africa	Mobilizes peasant farmers for food sovereignty, land rights, and resistance to industrial ag. Practices include polyculture, native seed conservation, agroforestry, ecological pest control, and community-supported agriculture (CSA).	Regional

Le Jardin d'Eden	Agroecological Project / Learning Center	Benin	Established a dedicated farm and learning center serving as a hub for farmers and entrepreneurs to learn and apply agroecological methods. Promotes sustainable farming by discouraging harmful practices such as burning, herbicides, pesticides, and tree felling. Focuses on soil fertility management through innovative composting using animal and human latrine waste (including pigeon droppings, rabbit and human excrement), use of urine as fertilizer, crop rotation, and conservation of native seeds. Trains farmers on climate change adaptation and agroecology. Encourages youth entrepreneurship and farmer-led applied research.	Commune of Allada, Benin (12 villages)
Midokwo Farmers Group	Farmers' Group	Benin (village level)	Organic banana seed production using pest- and disease-free suckers; communal seed bed management; organic farming training; demonstration plots; extension services; avoids chemical herbicides and pesticides. Supported by Ecological Organic Agriculture Initiative and OBEPAB.	Local village level in Benin
MOBIOM (Mouvement Biologique Malien)	Farmer Network	Mali	Supports organic farming, local seed use, manure fertilization, and natural pest management. Works with farmers to access organic certification and market linkages.	National
Mouvement Biologique Malien (MOBIOM)	NGO	Mali	Promotes organic farming and agroecological practices; trains farmers in sustainable agriculture.	National
Nigeria Environmental Rights Action (ERA) / Friends of the Earth Nigeria	Civil society organization	Nigeria	Advocates for food sovereignty; opposes industrial agriculture and land grabbing; promotes sustainable farming; influences biosafety and seed laws.	National

N'goral Guidala Women's Group	Women's Community Group	Senegal	Empowers women through agroecological farming, seed saving, and sustainable food production, fostering community resilience.	Senegal (local communities)
NOAN (Organic Practitioners Association of Nigeria)	Organic Farmers Association / CSO	Nigeria	Standards & certification, advocacy, training (complement, marketing, research), coordination of organic certified farms, PGS certification for organic growers.	National
Ope Farms Organic Mart	Organic Farm / Retail	Ikeja GRA, Lagos, Nigeria	Organic vegetable and fruit production; retail of organic products; promotes healthy eating	Lagos, Nigeria
Organisation Béninoise pour la Promotion de l'Agriculture Biologique (OBEPAB)	NGO / Organic Agriculture Network	Benin (national)	Promotes organic agriculture through farmer training, advocacy, certification support; supports farmer groups like Midokwo; fosters agroecological practices including organic cotton and banana production; facilitates knowledge exchange and capacity building.	National coverage in Benin
Organic and Agroecology Initiative of Nigeria (ORAIN)	Network of organic and agroecology practisionners and advocate	Nigeria	Policy advocacy, agroecology mainstreaming, farmer mobilization; promotion of sustainable agriculture; capacity building; local product promotion	Nationall
Peasant Farmers Association of Ghana (PFAG)	Farmers' association	Ghana	Advocates for smallholder farmers; promotes sustainable and agroecological practices; supports farmer-friendly policies. Engages farmers in compost making, use of bio-inputs, indigenous seed selection, climate-resilient cropping systems, and integrated pest management (IPM).	National
Pelungu Community Agroecology Initiative	Community Project	Ghana	Introduced orange-fleshed sweet potato adapted to poor soils and climate variability; improved nutrition, food security, and farmer incomes through crop diversification.	Pelungu, Ghana

PISCES (Permaculture Institute for Communal Economic Systems)	Organic Teaching / Permaculture Farm	Northern Togo	Permaculture field systems; soil regeneration; agroforestry; natural crop systems vs monoculture demonstration	Local teaching farm
Planet Farmers / Echoppe	Agroecological micro-enterprise	Togo	Crop diversification (okra, soy, peanuts, honey), agroecology extension, supply-chain & finance	Nationwide
Platform of Civil Society Actors of Benin (PASCiB)	Civil Society Network	Benin (national)	Coordinates civil society organizations working on sustainable agriculture, food security, and agroecology; promotes farmer empowerment and policy advocacy; supports organic farming initiatives and community-based agroecology projects.	National coverage in Benin
Premium Hortus	Greentech Organic Producer & E-commerce Platform	Cotonou & Nationwide, Benin	Supports 60+ organic certified crops, short supply chains, farmer training, organic compost, biogas, market access; expanding to Togo, Morocco, Cameroon	National & Regional expansion
Programme d'Appui à la Transition Agroécologique en Afrique de l'Ouest (PATAE)	Regional Program/Network	Senegal, Mali, Burkina Faso, Togo, Côte d'Ivoire	Financing agroecology projects; training and advisory support for producers; networking agroecology actors; policy advocacy	Multi-country (ECOWAS)
RAAF (Regional Agency for Agriculture and Food)	Regional Agency/Network	Lomé, Togo (ECOWAS-wide)	Technical execution of ECOWAS agricultural policy; promotion of family farms, agroforestry, sustainable agriculture; coordination of regional agroecology programs	Regional (ECOWAS 15 countries)
Research Institutions and Training Centers	Research / Training	ECOWAS countries (15 training centers selected)	Developing and disseminating agroecological curricula; capacity building for farmers and extension agents	Regional
Réseau des Organisations Paysannes et des Producteurs de l'Agriculture Familiale du Burkina (ROPPA)	Network	Burkina Faso	Advocates for agroecology and food sovereignty; promotes agroecological practices and farmer rights.	Burkina Faso and regionally

ROPPA (Network of Farmers' and Agricultural Producers' Organizations of West Africa)	Farmer Network	West Africa	Promotes family farming rooted in agroecology; trains members in composting, seed saving, agroforestry, water harvesting, and organic fertilization. Advocates for farmer-friendly seed and land policies.	13 ECOWAS countries + Nigeria & Cape Verde
ROPPA (Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest)	Farmers' Network	ECOWAS Region	Policy advocacy, agroecology mainstreaming, farmer mobilization; promotion of sustainable agriculture; capacity building; local product promotion	13 member national organizations + associates
Rural Agro-ecological Incubation Centre (CIRA)	Agroecological Training & Incubation Centre	South Comoé region, Côte d'Ivoire	Promotes regenerative agriculture and agroecology among rural populations; trains farmers and youth in sustainable farm management, marketing, and trading of perishable goods; supports access to finance and markets; coaches young agripreneurs; fosters profitable and climate-resilient agriculture	South Comoé region, Côte d'Ivoire; impacts rural youth and farmers nationally
SAFB Project (FiBL/Edith Maryon Foundation)	Agroecological Food Systems Project	Benin	Capacity-building (~300 farmers) in agroecological crop protection, soil fertility and agroforestry; demonstration plots	Regional project
SAILD Project (Service d'Appui Aux Initiatives Locales de D'veloppement)	NGO / Development Project	Extreme North, Cameroon	Addresses land degradation and rainfall challenges; promotes agroecology and food security; trains 2,500 families in sustainable land management, crop rotation, organic fertilization, and nutrition education despite security challenges.	21 villages, Extreme North, Cameroon
SAIN Farm School (Solidarités Agricoles Intégrées)	Agroecological Farm + Training School	Kakanitchoé, Adjohoun - Benin	Fully integrated agroecological production of crops + livestock + processing; teaching via "Farm School" since 2003	Local with educational outreach
SCOOPS TIBI	Organic Input Coop Project	Sissiak & Doukpergou, Savannah - togo	Produces/distributes organic compost, biofertilizers, biopesticides; innovation plots; promotes Bokashi compost; supports women-led producers	Local – 2 cantons

Sasakawa Africa Association (SAA)	NGO / Regenerative Ag Organization	Nigeria	Promotes regenerative agriculture: ISFM, conservation agriculture, organic fertilizers, intercropping, cover cropping, IPM.	National
Sawadogo Farm	Smallholder Agroecological Farm	Burkina Faso (North-Sudanian zone)	Implements traditional intercropping, crop rotations, crop-livestock integration, zai pits, stone bunds, biological pest control; focuses on soil fertility improvement and sustainable farming in harsh climatic conditions.	Local to North-Sudanian agroecological zone
SCL Nigeria (Sa'I Anwara'I Ju'Mai Consultaire Limited)	Agro-Allied Company / Regenerative Agriculture Enterprise	Abuja (Head Office), Nigeria; Farm in Abuja; Project implementation in Adamawa, Kaduna, Nasarawa States	Implements regenerative agriculture using Integrated Crops, Trees, and Livestock (RAICTL) system; runs a Farm-Farmer School for hands-on training; promotes sustainable livelihoods through climate-smart farming; trains youth and women in entrepreneurship, livestock, fishery, crop production, processing, and marketing; focuses on breaking poverty cycles among rural and peri-urban communities; uses mentorship model for widespread adoption	Nigeria (Adamawa, Kaduna, Nasarawa states) with national impact through training and outreach
SDAD / African BioCompost Grower	Organic Inputs Producer / Agribusiness	Benin (national)	Produces and markets organic biofertilizers and compost; promotes sustainable soil fertility management; supports farmers with organic inputs; integrates agroecological principles in production and marketing of biofertilizers.	National coverage in Benin
Seed Cooperatives and Farmer Networks	Cooperatives / Networks	Various ECOWAS countries	Preserving and exchanging local seeds; promoting biodiversity and seed sovereignty; supporting agroecological practices	Local and regional

Self Help Africa Demonstration Farm	NGO-led Demonstration Farm	Near Banjul, The Gambia	Demonstrates climate-smart, organic fruit and vegetable production including papayas, bananas, pineapples, strawberries, ginger, garlic, and onions; uses chemical-free growing methods with natural pesticides; promotes recycling of waste (plastic mulch, tyres as beds); trains farmers, students, and civil servants; supports women-led cooperative farms growing year-round crops; focuses on food security and income stability	Local communities across The Gambia; supports women-led cooperatives nationwide
Sierra Leone Network on the Right to Food (SiLNoRF)	Network	Sierra Leone	Advocates for right to food and sustainable agriculture; promotes agroecological practices and food sovereignty.	National
Small Scale Women Farmers Organization in Nigeria (SWOFON)	Organization	Nigeria	Advocates for women in agriculture; supports women-friendly policies and sustainable practices; promotes agroecology. Empowers women in organic production, mixed cropping, kitchen gardening, compost pits, and traditional pest management. Advocates for land rights and gender-responsive agroecology.	National
Slow Food Farms Burkina Faso	Network of Agroecological Farms	Burkina Faso	Promotes agroecology and sustainable food systems; supports smallholder farmers in organic farming, biodiversity conservation, traditional seeds, and local food culture; facilitates farmer training and market access.	Nationwide Burkina Faso
Songhaï Center	Demonstration Agroecological Farm & Training Center	Porto-Novo, Benin	Integrated agroforestry, composting, biogas from livestock waste, renewable energy use, crop rotation; operates foundry & processing (juice, rice, soap); trains entrepreneurs globally (greenisyou.com)	Local (24 ha), model replicated in 5–10 countries across West Africa

Sustainable Development Institute (SDI)	NGO	Liberia	Advocates for sustainable land use and food sovereignty; promotes indigenous and agroecological farming practices.	National
Swisscontact Béninclusif – SDAD	Organic Input & Citrus Project	Benin	Formulates organic citrus fertilizers via plant biomineralization; lab-tested; award-winning innovation	National across citrus zones
Tcharm Fora Agroecological Farm (ORAD)	Agroecology Training & Farm	Benin	Farm-school since 1997 teaching agroecology; builds trainer capacity; infrastructure upgrades; video curriculum	Local training center
The Togolese Coordination of Peasant Organizations and Agricultural Producers (CTOP)	Coordination network	Togo	Advocates for smallholder farmers, food sovereignty, and agroecology; promotes soil health and traditional practices.	Togo and regional networks
Union Alheri	Farmer Collective / Agroecology Network	Dosso Region, Niger	Implements soil fertility management combining organic matter recycling, mechanized transport of organic fertilizers, invasive plant use for soil conservation, and distribution of animal manure kits to women. Community training and mobilization for soil revitalization.	40 villages in Boboye department, Niger
Union Inter-Régionale des Sociétés Coopératives (UIREC)	Farmers' Cooperative Union / Agroecology Network	Côte d'Ivoire (San Pedro and other cocoa-producing regions)	Umbrella union of 25 cocoa cooperatives practicing agroforestry and agroecology; promotes sustainable cocoa production with shade trees, soil fertility management, and diversified agroforestry species (fruit trees, medicinal plants). Provides capacity building, financial strengthening, and training on good agricultural practices. Member of West African Agroecology Alliance.	Côte d'Ivoire (multiple cocoa regions), supporting 9,000+ producers managing 6,800 ha of cocoa agroforestry

West Africa Organic Network (WAfroNet)	Network	Senegal (West Africa-wide)	Advocacy at AU/ECOWAS, capacity building, research & extension, market development, resource mobilization, consultancy for EOA (Ecological Organic Agriculture), uniting organic actors. Promotes organic and agroecological agriculture; network strengthening; member mapping; organizing assemblies and events	Regional network across West Africa
West African Alliance for Large-Scale Food Fortification (WAHO-led)	Network / Regional Initiative	ECOWAS region	Promoting food fortification and agro-processing to improve nutrition; supporting agroecological food systems	Regional
West African Women Bio Farming Society (WAWBFS)	Organic Farm Cooperative	Togo (Lomé)	Woman-led technical training in organic soya production; 700+ women, aiming to produce 3,000 MT/month organic soya; empowerment and capacity building.	National
Youth in Agroecology and Restoration Network	Youth NGO	Nigeria	Promoting agroecology and food sovereignty through education programmes, community engagement and empowerment and advocacy	National
Young Volunteers for the Environment (YVE)	NGO/Youth movement	Togo and Africa	Environmental awareness, sustainable development, climate change. Promotion of sustainable practices, natural resource management.	Togo with affiliates in 21 African countries
Zougrana Farm	Smallholder Agroecological Farm	Burkina Faso	Practices mixed farming with seed preservation, biodiversity promotion, agroforestry, and sustainable land management; applies agroecological principles to restore degraded lands and improve food security.	Local Burkina Faso

Source: Authors' compilation

Role of Each Actor in Promoting Agroecology

The actors identified play complementary roles in advancing agroecological transformation in the region:

- **Farmers and cooperatives** serve as ground-level innovators, applying diverse agroecological techniques such as composting, crop rotation, mixed cropping, and water harvesting.
- **CSOs** often act as intermediaries, delivering training, conducting policy advocacy, facilitating market access, and building farmer networks.
- **Research institutions and agroecology networks** contribute through documentation of best practices, knowledge sharing, and influencing regional frameworks.
- **Women's and youth groups** are critical drivers of localized innovation and preservation of indigenous knowledge and seed systems.
- **Regional platforms** like ROPPA and ECOWAS agroecology task forces advocate for policy integration and scale-up strategies at the West African level.

Collectively, these actors form the backbone of the agroecological movement in West Africa. Their collaboration is essential for creating enabling environments, influencing policies, and mobilizing resources toward a food system transformation.

AGROECOLOGICAL PRACTICES IN USE

Overview of Agroecological Practices Identified

Through field observations, literature reviews, case studies, impact reports, and stakeholder interviews, a wide range of agroecological practices were documented across different contexts. These practices draw on ecological principles, traditional knowledge, and low-external-input farming systems, reflecting both historical wisdom and adaptive responses to contemporary agro-climatic and socio-economic challenges.

The most commonly observed practices include:

1. Soil Fertility and Restoration: Farmers employ multiple techniques to maintain and regenerate soil health. These include the use of compost(e.g bokashi), animal manure, green manure, and other organic inputs. Crop rotation and cover cropping are widely practiced to naturally fix nitrogen, suppress weeds, and prevent soil nutrient depletion. These practices reduce dependence on synthetic fertilizers and enhance the soil's organic content, structure, and biological activity.

2. Agroforestry and Landscape Integration: Agroforestry - the deliberate integration of trees with crops and/or livestock is used to enhance biodiversity, improve soil structure, stabilize microclimates, reduce erosion, and increase access to food and income. Tree species such as *Gliricidia*, *Faidherbia albida*, and *Moringa* are frequently interplanted due to their ecological and nutritional benefits.

3. Intercropping and Crop Diversification: Planting multiple crop species in the same space or rotation cycle helps farmers optimize land use, reduce pest and disease pressures, and improve dietary diversity and food security. These systems mimic natural ecosystems, promote resilience, and spread economic risk across seasons.

4. Biological Pest and Disease Management: Natural pest control methods are preferred over synthetic pesticides. These include the use of bio-pesticides (e.g., neem, pepper, garlic extracts), habitat manipulation to attract beneficial predators, trap cropping, and companion planting. Such methods safeguard human and environmental health while preserving soil biodiversity.

5. Water and Soil Conservation Techniques: To cope with water scarcity and degraded land, farmers adopt techniques such as zai pits, bunds, terraces, mulching, and water-harvesting structures. These practices help retain moisture, prevent runoff, and rehabilitate marginal lands, particularly in drought-prone areas.

6. Seed Sovereignty and Biodiversity Preservation: Farmers maintain and exchange indigenous seeds that are adapted to local conditions and resilient to pests and climatic

variability. Community seed banks, informal networks, and seed fairs support seed sovereignty, cultural preservation, and crop diversity.

7. Traditional Knowledge and Innovation: Agroecological practices are often informed by deep local knowledge systems—farming calendars based on lunar cycles, plant-based treatments, community rituals for seasonal transitions, and other ancestral techniques. At the same time, communities are integrating these traditions with new tools and innovations, demonstrating dynamic, farmer-led adaptation.

8. Climate-Smart and Resilient Farming: In response to climate change, farmers are adopting climate-smart agriculture techniques such as drought-tolerant crops, early planting, water retention measures, and risk-spreading strategies like mixed farming. These help them adapt to erratic rainfall, increasing temperatures, and prolonged dry spells.

9. Capacity Building and Farmer Empowerment: Many agroecology initiatives include training and knowledge sharing activities, particularly targeting women and youth. Farmer field schools, peer-to-peer exchanges, participatory research, and cooperative models are central to spreading knowledge and building local capacity.

10. Market Access and Local Economies: Some farmer networks are connecting agroecological production to local markets, nutrition programs, or green value chains. This promotes fair pricing, local consumption, and economic sustainability while reducing reliance on distant or exploitative commodity markets.

11. Innovative Local Practices: In addition to widely known techniques, several innovative and locally specific agroecological adaptations were noted:

- Terrace farming in hilly zones of Togo to prevent runoff.
- Use of biochar from agricultural residues for soil regeneration.
- Youth-led agroecology tech hubs piloting mobile advisory tools on organic farming practices.

Knowledge Sharing and Farmer-to-Farmer Extension

Many communities rely heavily on informal knowledge exchange mechanisms. Farmer field schools, peer demonstration plots, and learning exchanges play a vital role in scaling agroecological knowledge.

Some CSOs also utilize radio, WhatsApp groups, and participatory video to disseminate practices widely.

Gender and Agroecology

Women, especially in rural cooperatives, were found to be custodians of key agroecological knowledge such as seed selection, processing, and herbal pest control. However, access to land and decision-making power still limits their full participation. Targeted support for women can thus significantly accelerate the agroecological transition.

Best Practices in Agroecology and Resilient Farming Systems in West Africa

Traditional Water Harvesting Techniques (Zaï, Half-Moon, Mulching): In arid and semi-arid regions like Burkina Faso and Mali, traditional water harvesting methods have been revitalized with great success. *Zaï* holes - small pits dug into hardened soils—are filled with compost and organic matter to capture rainwater and concentrate nutrients around plant roots. *Half-moon* structures, semicircular embankments built along contours, slow down runoff and allow water infiltration into the soil. Mulching with organic materials helps retain moisture, suppress weeds, and enrich the soil. These methods have transformed degraded lands, increased soil fertility, and significantly boosted yields of millet, sorghum, and other staple crops.





Agroforestry and Conservation Agriculture: Farmers in Burkina Faso, Mali, Nigeria and Niger are increasingly integrating trees with crops and livestock on the same land. This practice enhances biodiversity, provides shade and windbreaks, and improves soil structure and water retention. Tree species like *Faidherbia albida* fix nitrogen and shed leaves during the growing season, enriching soils naturally. Coupled with conservation agriculture

techniques such as minimal tillage, permanent soil cover, and crop rotation, these systems reduce erosion, sequester carbon, and enhance resilience to climate variability.



Crop–Livestock–Insect–Fish Integration: By combining crops, livestock, insects, and aquaculture in a circular system, farmers can enhance nutrient recycling, reduce waste, and diversify their food and income sources. Livestock manure is used to enrich soil fertility, while crop residues serve as feed for animals or substrate for insect farming, especially black soldier fly larvae (maggots), which are then processed into high-protein feed for poultry and fish. Earthworms are reared for both vermicomposting and as a protein source in pig and fish diets. Additionally, nutrient-rich water from fish ponds is repurposed for vegetable production, particularly in integrated setups like aquaponics. This multi-layered integration strengthens ecological balance, reduces dependency on external inputs, and builds resilient farming systems capable of withstanding environmental and economic shocks.






Cultivation of Indigenous, Climate-Resilient Crops: Local crop varieties such as *fonio*, *Bambara groundnut*, *millet*, and *sorghum* are well adapted to dry conditions and poor soils. These crops require less water, are naturally resistant to pests and diseases, and are

culturally significant. Promoting their use enhances food sovereignty, dietary diversity, and adaptive capacity to climate change.





Biological Pest Management: Eco-friendly pest control methods are widely used, such as neem leaf extract sprays, application of wood ash, and strategic intercropping (e.g., combining maize with legumes or repellent plants) to deter pests naturally. These methods reduce reliance on synthetic pesticides, safeguard human and environmental health, and support beneficial insect populations.



Soil Fertility Management with Organic Inputs: Composting, green manuring, and the incorporation of crop residues help restore soil organic matter and nutrient content. Green manure crops like legumes fix nitrogen and improve soil structure. These practices reduce the need for chemical fertilizers and enhance the biological activity of the soil.


Seed Saving, Farmer-Led Breeding, and Seed Exchanges: Farmers preserve and improve local crop varieties through traditional seed-saving techniques, participatory plant breeding, and community seed banks. These practices maintain genetic diversity, ensure seed availability, and empower farmers to select traits suited to their environments and preferences.

Agroforestry (Trees Integrated with Crops and Livestock): Beyond providing ecological services, trees offer fruits, fodder, fuelwood, and medicinal products. Their integration into farming systems creates multifunctional landscapes that support livelihoods, enhance carbon sequestration, and buffer against climatic extremes.

Participatory Farmer Schools and Knowledge Hubs: These grassroots learning platforms enable farmers to share knowledge, experiment with agroecological techniques, and build capacity through peer-to-peer learning. Topics range from pest control and composting to market access and climate adaptation. Farmer Field Schools and agroecology hubs foster innovation, self-reliance, and collective action.

IMPACT ANALYSIS

This section presents an analysis of the observed and reported impacts of agroecological practices among farmers and communities in Togo and selected ECOWAS countries. It draws on both qualitative and quantitative data collected through interviews, field observations, and literature review.

1. Agricultural Productivity

Agroecological practices have led to notable improvements in productivity over time, particularly in diversified cropping systems. While yields may initially be lower during the transition period (especially when replacing chemical inputs with organic methods), long-term productivity tends to stabilize and improve due to enhanced soil fertility and ecological balance. Intercropping and crop rotation also enable year-round harvesting, helping farmers reduce seasonal food shortages.

2. Seed Autonomy and Biodiversity

Many farmers reported increased autonomy through the use and preservation of indigenous seeds. Community seed banks, supported by CSOs and farmer cooperatives, have helped reduce dependence on commercial seed companies and protect agrobiodiversity. This practice enhances resilience and allows communities to retain control over their production systems.

3. Climate Resilience and Environmental Health

Agroecological methods such as composting, agroforestry, mulching, and reduced tillage have strengthened farms' ability to cope with erratic rainfall and drought. These practices improve soil structure, enhance water retention, and reduce vulnerability to climate-related shocks. Farmers also report fewer incidences of erosion and pest outbreaks, and some communities have revived degraded land through agroecological restoration.

4. Nutrition and Household Food Security

Crop diversification under agroecology improves dietary diversity by promoting the cultivation and consumption of vegetables, legumes, and traditional food crops. This has led to improved nutrition at the household level. Reduced chemical input also means safer, healthier food for local consumption.

5. Income and Market Access

Agroecology has generated modest but steady income gains for smallholder farmers, especially those involved in niche or organic markets. However, the lack of structured markets and premium pricing for agroecological products remains a constraint. Despite this, many

farmers experience cost savings due to reduced dependency on external inputs such as chemical fertilizers and pesticides.

6. Empowerment and Knowledge Sharing

The participatory nature of agroecology has empowered farmers, especially women and youth, by valuing their local knowledge and encouraging collective learning. Farmer field schools and peer-to-peer exchanges have fostered leadership and innovation at the grassroots level. These practices have also enhanced social cohesion and cooperation within communities.

7. Institutional and Policy Influence

While still limited, agroecological initiatives have begun influencing policy discourse in some ECOWAS countries. Networks and platforms supported by CSOs have increased visibility of agroecology in national agricultural plans and dialogues. The documentation and communication of positive impacts are critical in driving broader policy adoption and donor interest.

CHALLENGES AND CONSTRAINTS

Despite the multiple benefits of agroecological practices, their adoption and scaling remain limited due to a range of interrelated challenges. These constraints are technical, socio-economic, institutional, and policy-related.

1. Labor Intensity and Limited Mechanization

Agroecology often requires more manual labor, especially during land preparation, composting, and weeding. In the absence of appropriate small-scale tools or adapted mechanization, this increased workload discourages adoption, particularly among aging farming populations and women who already face heavy domestic responsibilities.

2. Inadequate Market Access and Economic Incentives

There is a general lack of structured markets that recognize and reward agroecological products. Without price differentiation or certification systems, farmers have limited incentives to adopt practices that may yield slower short-term returns. Many agroecological producers rely on informal markets, where product quality or ecological methods are not well understood or valued by consumers.

3. Weak Extension Services and Knowledge Gaps

Government extension services in many ECOWAS countries are not equipped to support agroecological transitions. There is limited training, personnel, and institutional alignment with agroecological principles. This gap leaves farmers dependent on CSOs, which may not have sufficient reach or resources to scale knowledge dissemination.

4. Limited Access to Inputs and Seed Systems

Agroecology depends heavily on local inputs, including indigenous seeds, organic matter, and biodiversity-based practices. However, access to these is inconsistent due to the erosion of traditional seed systems, poor infrastructure for composting, and inadequate investment in sustainable input supply chains. Moreover, some seed laws and regulations favour commercial hybrids over local varieties.

5. Policy and Institutional Barriers

Agroecology remains under-recognized in formal agricultural policy frameworks at both national and regional levels. Subsidies and incentives often favour industrial inputs (chemical fertilizers, pesticides) rather than ecological alternatives. Fragmented institutional coordination and weak political will further limit integration of agroecology into public programs.

6. Financial Constraints

Most smallholder farmers lack access to affordable credit or concessional finance to support the transition to agroecological practices. Donor funding is often project-based and time-bound, with limited sustainability. This financial fragility undermines long-term adoption and infrastructure development for agroecology (e.g., training centers, compost hubs).

7. Climate and Environmental Risks

Agroecological systems are vulnerable to the same climate shocks they aim to mitigate. Prolonged droughts, flooding, and erratic rainfall can undermine productivity, particularly in the absence of supportive infrastructure (like irrigation) and early warning systems. The resilience benefits of agroecology may take time to fully materialize, creating a perception of risk.

8. Social and Cultural Constraints

In some communities, traditional or patriarchal norms may limit the participation of women and youth in decision-making or land access, which in turn affects their engagement in agroecological innovation. Additionally, farmers may face resistance to change due to generational habits, risk aversion, or skepticism about the efficacy of ecological approaches.

OPPORTUNITIES AND ENABLERS

While significant challenges persist, the West African agroecology landscape is also marked by growing momentum, innovation, and supportive frameworks. This section outlines the key opportunities and enabling conditions that can be leveraged to advance the agroecological transition at scale.

1. Strong Community and Traditional Knowledge Base

Agroecology aligns naturally with many traditional farming systems and indigenous knowledge, which have long prioritized diversity, ecological balance, and community cooperation. Farmers, especially women and elders - hold rich experiential knowledge that can be harnessed to design context-appropriate, resilient solutions rooted in local realities.

2. Active Civil Society and Farmer Networks

West Africa has a vibrant ecosystem of civil society organizations, farmer associations, and agroecology platforms such as ROPPA, JVE, and Coalition pour la Protection du Patrimoine Génétique Africain (COPAGEN), ORAIN. These actors are leading grassroots mobilization, capacity-building, and advocacy efforts that are steadily influencing public discourse and policy agenda.

3. Emerging Policy and Institutional Recognition

Although uneven, there is growing recognition of agroecology in national and regional policy frameworks. ECOWAS has begun promoting agroecological approaches through regional strategies. Some countries (e.g. Senegal, Mali, Burkina Faso) are developing agroecology-inclusive agricultural plans, offering models for Togo and others to follow.

4. Research and Innovation Momentum

Academic and research institutions in the region are increasingly interested in documenting agroecological practices and their impacts. Partnerships between universities, CSOs, and farmer groups are generating local evidence, developing ecological inputs (like bio-pesticides), and experimenting with climate-resilient cropping systems.

5. Youth Engagement and Digital Tools

Agroecology is attracting a new generation of youth innovators who are combining ecological practices with digital platforms. Mobile apps, social media, and WhatsApp groups are being used to share knowledge, organize training sessions, and market agroecological products. Youth-led agri-tech startups also offer scalable models for advisory services and ecological input access.

6. Climate Finance and Donor Attention

Agroecology is increasingly recognized by global institutions as a key pathway to address the triple crises of climate change, biodiversity loss, and food insecurity. This has opened the door for new funding streams under climate adaptation, regenerative agriculture, and sustainable food systems initiatives, including from Green Climate Fund (GCF), GEF, and the EU.

7. Market Innovations and Eco-Labelling

There is a growing market segment—especially among urban consumers—seeking safe, organic, and culturally rooted foods. This creates an opportunity to develop eco-labelling, community-supported agriculture (CSA), and short value chains that reward agroecological producers and build local food sovereignty.

8. Strategic Alliances and South–South Learning

The region can benefit from increasing South–South cooperation and knowledge exchange on agroecology. Examples from Latin America, India, and East Africa provide practical inspiration for policy design, farmer-led extension, and multi-stakeholder governance that supports agroecology.

RECOMMENDATIONS

The findings of this research affirm that agroecology holds transformative potential for food sovereignty, ecological resilience, and rural livelihoods across West Africa. To strengthen its adoption and mainstreaming, the following recommendations are proposed for various stakeholders:

1. For Civil Society Organizations (CSOs) and Farmer Groups

- Scale up community training and farmer-to-farmer exchanges to deepen practical knowledge of agroecological methods, seed conservation, soil fertility, and local pest control solutions.
- Strengthen seed sovereignty initiatives by investing in community seed banks, farmer-led seed selection, and preservation of indigenous varieties.
- Promote women's and youth leadership within agroecological cooperatives and platforms, ensuring their access to land, tools, training, and decision-making roles.
- Improve documentation and storytelling to capture success cases and lessons learned, using participatory video, photo stories, and farmer testimonies to engage wider audiences.
- Engage in strategic alliances with academia, media, and private sector actors to amplify advocacy efforts and co-develop solutions.

2. For Policymakers and Government Institutions

- Integrate agroecology into national agricultural policies and food security strategies, with clear goals, indicators, and financing mechanisms.
- Reform agricultural input subsidy programs to support composting, organic fertilizers, biopesticides, and local seed production rather than chemical inputs.
- Institutionalize agroecology training in extension systems, agricultural colleges, and public research institutions.
- Support land tenure security, especially for women and young farmers, to enable long-term investment in sustainable practices.
- Facilitate local market development through eco-labelling, procurement incentives for schools and hospitals, and support for farmers' markets.

3. For Donors and Technical Partners

- Provide long-term, flexible funding for agroecological initiatives, emphasizing farmer-led innovation, capacity building, and systems transformation.
- Support inclusive platforms and multi-stakeholder dialogue that elevate farmers' voices and promote cross-sector collaboration.
- Invest in monitoring and evaluation frameworks that measure agroecological impacts beyond yield, including biodiversity, resilience, nutrition, and equity.
- Facilitate access to climate finance for agroecological projects, linking them to national adaptation plans and resilience-building frameworks.
- Enable cross-country learning by funding exchanges, study tours, and joint research programs across ECOWAS countries and the Global South.

4. For Farmers and Agroecological Practitioners

- **Organize into cooperatives or farmer associations** to increase visibility, negotiate for better market access, and benefit from shared learning.
- **Document and experiment locally**, maintaining records of yields, inputs, and observed benefits to support evidence-based advocacy.
- **Engage youth and family members** in agroecological knowledge transfer to ensure sustainability across generations.
- **Build relationships with local consumers** through storytelling, open farm days, and direct marketing to promote trust and recognition of agroecological products.
- **Use digital tools and platforms** to access information, markets, and peer learning communities.

These recommendations are not exhaustive but offer concrete entry points to accelerate the agroecological transition in West Africa. Coordination, political will, and investment in grassroots systems are essential to bring agroecology to scale and to build a just, resilient, and sovereign food future for the region.

CONCLUSION

This report has examined the status, impact, and transformative potential of agroecological practices in Togo and the wider ECOWAS region. Through a comprehensive analysis grounded in field data, literature review, and stakeholder perspectives, it is evident that agroecology offers a practical, scalable, and inclusive pathway toward food sovereignty, climate resilience, and sustainable rural development.

Agroecology stands out not merely as a set of farming techniques but as a holistic approach that values local knowledge, strengthens community agency, restores ecosystems, and democratizes food systems. The documented impacts, ranging from improved soil fertility, increased seed autonomy, and enhanced nutrition, to greater social cohesion and empowerment affirm that agroecology can address multiple crises simultaneously.

However, the transition to agroecology is not without obstacles. Farmers face structural challenges such as lack of supportive policies, weak market linkages, limited access to finance, and labor demands. Overcoming these constraints requires coordinated efforts across all sectors and levels; from grassroots organizations and farmer cooperatives to government ministries, regional bodies, and development partners.

The way forward lies in embracing agroecology not as an alternative, but as a foundational strategy for food systems transformation. This includes mainstreaming agroecology into public policies, investing in farmer-led innovation, and amplifying the voices of those already building this future from the ground up.

By acting on the recommendations outlined in this report, stakeholders can unlock the full potential of agroecology to foster a resilient, equitable, and sovereign food system in West Africa; one that benefits people, the planet, and future generations.

Appendix 1: Complete Inventory Tables

The same as table in the study

Appendix 2: Advocacy Brochure

roecology: Growing ood Sovereignty in West Africa

A sustainable path to silient farming, healthy communities, and vereign food systems.

What Is Agroecology?

Agroecology is a way of farming that works with nature—not against it. It blends traditional knowledge with ecological science to produce healthy food, restore soil, conserve water, and protect biodiversity.

Why Now?

- 30–50% of food in West Africa is imported
- Climate shocks threaten food production
- Farmers spend more on foreign seeds and chemicals

The Agroecological Solution:

✓ Natural fertilizers and local seeds

✓ Farmer-led innovation

✓ Resilient, diversified farms

Who Benefits?

Policymakers

- Agroecology is low-cost and locally driven
- Boosts productivity without dependency on imports
- Aligns with ECOWAS and African Union sustainable food strategies

Donors and Development Partners

- Agroecology is scalable and community-owned
- Enhances nutrition, income, and climate adaptation
- Builds long-term systems change—not short-term relief

Farmers and Rural Communities

- Affordable: fewer external inputs
- Healthier soils and crops
- Reclaims control over seeds, food, and markets

"Since switching to agroecolog income has tripled, and my ch eat better. We are no long dependent on expensive fertilizers."— *Fatoumata, Far Togo*

Impact at a Glance:

- +25–40% yield increase ove
- More diverse and nutritious
- Improved soil and water ret
- Empowerment of women and
- Enhanced climate resilienc

Call to Action:

1. Policymakers: In agroecology into n agriculture plans
2. Donors: Fund agroe training, research, and farm networks
3. Consumers: Buy local and c to support food sovereignty
4. Everyone: Champion comm driven solutions

Contact Us:

Les Amis de la Terre-Togo

ANNEX 3: CASE STUDY ON STRONG AGROECOLOGICAL PRACTICES IN WEST AFRICA

Case 1: JAMS Organic Farms – Nature Based Agroecology.


JAMS Organic Farms and Kitchens is a Nigerian-based agricultural enterprise specializing in naturally grown, pesticide-free organic produce and humanely raised livestock. With location in Kuje, Abuja, the company is committed to sustainable and chemical-free farming practices, serving both local and international markets.

JAMS Organic Farms and Kitchens employs a comprehensive range of sustainable farming practices designed to protect the environment, conserve resources, and produce healthy, organic food.

JAMS Organic Farm stands out as one of the most resilient and impressive integrated agroecology system observed in the country. It excels by preserving the natural biodiversity of its location, creating a solid foundation that supports both ecological balance and economic efficiency. The farm's manageable size (17 hectares) allows it to effectively combine existing biodiversity with innovative technology and the introduction of local species, fostering a thriving agroecological environment that benefits from a circular economy.

JAMS Organic Farm is an outstanding example of a resilient, integrated agroecology system that respects and retains the natural biodiversity of its location. With over 5,000 trees of diverse species such as locust beans, shea butter, malus, maluncen, lusina, bamboo, cashew, soursop, gwabdaggi, tick tree, and moringa, the farm maintains a strong ecological foundation. This rich tree diversity supports ecosystem services, soil health, and biodiversity conservation.

The farm also cultivates a variety of stable food crops, including potatoes, cassava, maize, and a wide range of vegetables tailored for local markets, alongside fruit trees like oranges, mangoes, cashew, and moringa seeds. The use of intercropping, mixed cropping, mulching, and composting, combined with natural pesticides, exemplifies sustainable agroecological practices that promote soil fertility, pest management, and resource recycling.

The farm's investment in value chain addition, particularly processing and direct consumer access, enhances product affordability and traceability, setting a strong example for sustainable agribusiness. Its open yet secure farm policy demonstrates transparency and a willingness to collaborate, making it a vital hub not only for farming but also for agro-business training.

The integration of livestock – cattle, sheep, birds, fish, turkey, chicken, bees, and black ants for maggot production) is smart and cost-efficient, naturally contributing to pest control and nutrient cycling. This holistic approach makes JAMS Organic Farm a leading model with boundless opportunities for growth, especially as it expands its plant nursery and fodder production for both internal use and commercial purposes. JAMS Organic Farm is a benchmark of a strong integrated-into-nature agroecology project with strong ecological, economic, and social potential, poised for impactful expansion and collaboration.



Key Features and Offerings

- **Conservation of Nature, Rich Biodiversity and Tree Diversity:** The farm has over 5,000 trees of various species including locust beans, shea butter, malus, maluncen, lusina, bamboo, cashew, soursop, gwabdaggi, tick tree, and moringa. This diversity supports ecosystem health and resilience.
- **Diverse Crop Production:** It grows stable food crops such as potatoes, cassava, maize, a wide variety of vegetables for local markets, as well as fruits like oranges, mangoes, cashew, and moringa seeds. This diversity enhances food security and market adaptability.
- **Integrated Agroecological Practices:** The farm uses intercropping, mixed cropping, mulching, composting, and natural pesticides, which improve soil fertility, pest management, and resource cycling, supporting sustainable and resilient farming.
- **Organic Crop Production**: JAMS cultivates a variety of crops, including economic trees, food crops, grains, oil seeds, fruits, vegetables, and herbs. Their produce is grown in protected, pesticide-free greenhouse environments, ensuring year-round supply of fresh, clean, and pure organic products.
- **Livestock Integration and Animal Products**: The farm raises poultry, fish, and other livestock using humane methods. They also produce premium quality meat, dairy, and fish, as well as organic honey from their apiary. Livestock integration contributes to natural pest control and nutrient supply, enhancing farm productivity and sustainability.

- **Manageable Farm Size with Efficient Circular Economy:** The farm's size is optimal for managing biodiversity and technology integration, enabling efficient use of resources and economic scaling.
- **Value Chain Addition and Market Access:** Investment in product processing and direct consumer access improves product affordability, traceability, and farm income.
- **Strong Potential for Expansion:** Opportunities exist to expand the plant nursery, fodder production, and urban market presence, supported by potential external funding and climate finance.
- **Commitment to Sustainability and Innovation:** The farm embraces renewable energy solutions and sustainable infrastructure to enhance long-term viability.
- **Open and Collaborative Farm Policy:** Transparency and willingness to share knowledge make it a hub for agro-business training and collaboration.

These features collectively make JAMS Organic Farm a benchmark integrated agroecology system with strong ecological, economic, and social foundations, poised for impactful growth and collaboration.

Key Sustainable Practices Used:

- **Pesticide-Free Greenhouse Cultivation:** Crops are grown in protected greenhouse environments without synthetic pesticides or chemical fertilizers, ensuring naturally pure produce and reducing environmental contamination.
- **Natural and Organic Fertilizers:** The farm uses organic fertilizers derived from natural sources, avoiding synthetic inputs that can harm soil health and water quality.
- **Water Conservation and Management:**
    - *Rainwater Harvesting & Solar Boreholes:* Collecting and storing rainwater ensures a reliable water supply year-round and reduces dependence on external sources.
    - *Swales, Bioswales, and Percolation Pits:* These landscape features slow runoff, retain moisture, and recharge groundwater, enhancing water efficiency.
    - *Drip Irrigation:* This targeted irrigation method minimizes water waste and delivers moisture directly to plant roots.
    - *Fish Ponds:* Integrated aquaculture systems help recycle water and nutrients within the farm ecosystem.
- **Soil Health and Erosion Control:**
    - *Mulching: Organic mulches help retain soil moisture, suppress weeds, and add organic matter to the soil as they decompose3.*

    - *Contour Farming & Check Dams: These techniques prevent soil erosion on sloped land and help maintain soil fertility.*
- **Agroforestry:** Integrating trees with crops and livestock promotes biodiversity, improves soil structure, and provides additional income sources3.
- **Crop Diversity:** JAMS cultivates a wide range of crops, including economic trees, grains, vegetables, and herbs, supporting ecosystem resilience and reducing pest outbreaks1.
- **Humane Livestock Management:** Animals are raised using natural, humane methods, which contribute to healthier livestock and more sustainable meat, dairy, and fish production. Livestock integration contributes to natural pest control and nutrient supply, enhancing farm productivity and sustainability.

Location:

- Gaube Extension Layout, Kuje, Abuja

Case 2: Be The Help Foundation (BTH) Agroecology Farm and Agroforest, Yangoje – Kwali Abuja Nigeria.



Be The Help Foundation (BHF) launched an agroforestry project in 2019 to establish a productive training center for agroforestry and rural development in Kwali Area Council, Abuja. This initiative aims to demonstrate the economic and environmental sustainability of agroforestry in Nigeria. The Foundation's agroforestry project utilizes two systems: the Modernized Brazilian System and the Vetri (Indian) System. The Brazilian system operates without irrigation, while the Vetri system is irrigated. Each system employs distinct planting patterns, plant varieties and plant population densities.

The primary objective of this project is to validate the feasibility of these agricultural methods in Nigeria, encouraging farmers, particularly smallholder farmers (SHFs), to adopt sustainable and regenerative practices. This adoption has led to increased income for farmers, while also positively impacting the environment, as the farm does not use any external inputs such as GMOs or hazardous pesticides.

Following the proof-of-concept phase in the first three years of operation, the farm has now established a world class training center for agroecology and agroforestry, a seed bank and plant nursery and a bank for fodder and feeds. The project is also building awareness and reaching out to farming communities, development partners and state governments through collaborations with organizations active in rural Nigeria.

Start Time: March 2019

Initial Project budget: 1,250,000 USD.

Resources: 20 hectares of land, 20 permanent staff, 200+ casual staff, a light tractor, etc.

Achievement so far: Increased resilience and improved yields

• Successfully designed and implemented two dense multi-cropping systems of agroforestry that covered stable crops, fodder system and fruit bearing and non-bearing economic trees on 13 hectares between 2019 and 2023. • Setting up pastureland development on 30 hectares for Nassarawa and Plateau States (NLTP), over 1 million super Napier grasses and 20,000 fodder trees planted for each state respectively. • Planted over 75,000 trees on 13 hectares of land. • Pool of trained technical staff that are reliable in skills and implementation of RA. • Functional knowledge/training center with 13 ha demonstration farm.	• Development of a Basic curricula for training agroforestry. Good collaboration with over 20 organizations, CSOs, NGOs, embassies, etc. • Over 700 farmers and individuals trained from 2022-to-2023. • Two new private projects to be implemented this year (Taraba and Kano States). • Newly built seedbank and storage facility. • Seed bank with about 2 tons of seeds (with 25 varieties of seeds). • 40 women (SWOFON) trained on natural pest control methods from 21 states in Nigeria. • 2 pastoralists projects with government institutions in Nassarawa and Plateau States. • 1 ha demo-plot/seed bank at Dama-Kusa village.


Start of the BHF project, June 2019


Same Project in December 2023


















Photo Credit: Be The Help Foundation

Climate action and environmental impact of the project

The Be-The-Help Foundation's agroforestry project has shown improvements in several biodiversity indicators:

1. **Increased plant diversity:** The project has introduced a diverse range of crops and trees, including eucalyptus, moringa, shea butter trees and others, which has increased plant diversity in the area. This diversity enhances ecosystem services such as pollination, pest control and soil health.

2. **Enhanced soil quality:** The agroforestry system has improved soil quality by increasing organic matter, reducing soil erosion and enhancing soil structure. This has led to healthier soil, which supports plant growth and biodiversity.

3. **Increased biodiversity:** The project has increased biodiversity by providing habitat for various species, including insects, birds and other animals. This biodiversity is critical for maintaining ecosystem services and supporting agricultural productivity.

4. **Reduced desertification**: The agroforestry system has mitigated desertification by providing shade, reducing soil temperature and increasing soil moisture. These factors have improved the overall resilience of the ecosystem and reduced the risk of desertification.

5. **Improved livelihoods:** The project has improved local farmers' livelihoods by providing them with sustainable agricultural practices, enhancing their income and

improving their overall well-being. This has led to increased food security and reduced poverty.

6. **Community engagement:** The project has engaged local communities in sustainable agricultural practices, promoting a sense of ownership and responsibility for the environment. This engagement has increased community involvement in conservation efforts and improved environmental stewardship.

Overall, the Be-the-Help Foundation's agroforestry project has made significant contributions to improving biodiversity indicators, including plant diversity, soil quality, overall biodiversity, reduced desertification, improved livelihoods and community engagement.

ANNEX 4: Agroecological Practices Observation & Assessment Checklist

For Field Visits and Online/Desk Reviews

□ A. General Project/Initiative Information

- ☐ Name of Project/Initiative
- ☐ Location (Village, LGA, State)
- ☐ Implementing Organization or Group
- ☐ Start and End Dates
- ☐ Target Beneficiaries (e.g. women, youth, smallholders)
- ☐ Primary Objective(s) of the Initiative

□ B. Core Agroecological Practices Implemented

Check all that apply:

- ☐ Crop diversification/intercropping
- ☐ Organic composting/manure use
- ☐ Agroforestry/tree planting
- ☐ Cover cropping/mulching
- ☐ Indigenous seed saving & use
- ☐ Biological pest management/IPM
- ☐ Integrated livestock-crop systems
- ☐ Conservation tillage or no-till farming
- ☐ Use of local knowledge and traditional techniques
- ☐ Water harvesting/soil moisture management
- ☐ Community seed banks
- ☐ Soil fertility enhancement (non-chemical)
- ☐ Renewable energy for farm operations
- ☐ Others (please specify): _____

□□□ C. Inclusion and Participation

- ☐ Are women actively involved?
- ☐ Are youth included in decision-making or practice?
- ☐ Is there evidence of community ownership and leadership?
- ☐ Are there collective or cooperative structures supporting the initiative?

□ D. Environmental and Social Outcomes (Observed or Reported)

- ☐ Improved soil fertility

- ☐ Increased biodiversity
- ☐ Reduced use of synthetic agrochemicals
- ☐ Improved yields or food availability
- ☐ Enhanced household nutrition
- ☐ Increased income or savings
- ☐ Knowledge transfer/training provided to others
- ☐ Contribution to climate adaptation or resilience

□ E. Tools, Inputs, and Knowledge Sources

- ☐ Locally sourced inputs used
- ☐ Traditional knowledge incorporated
- ☐ Scientific/extension support involved
- ☐ Farmer-led experimentation or innovation
- ☐ ICT or digital tools used for knowledge sharing or monitoring

F. Challenges and Constraints

- ☐ Access to land or secure tenure
- ☐ Market access for agroecological products
- ☐ Limited technical support or training
- ☐ Availability of organic or local inputs
- ☐ Climate variability and weather extremes
- ☐ Gender or youth exclusion
- ☐ Policy or institutional barriers

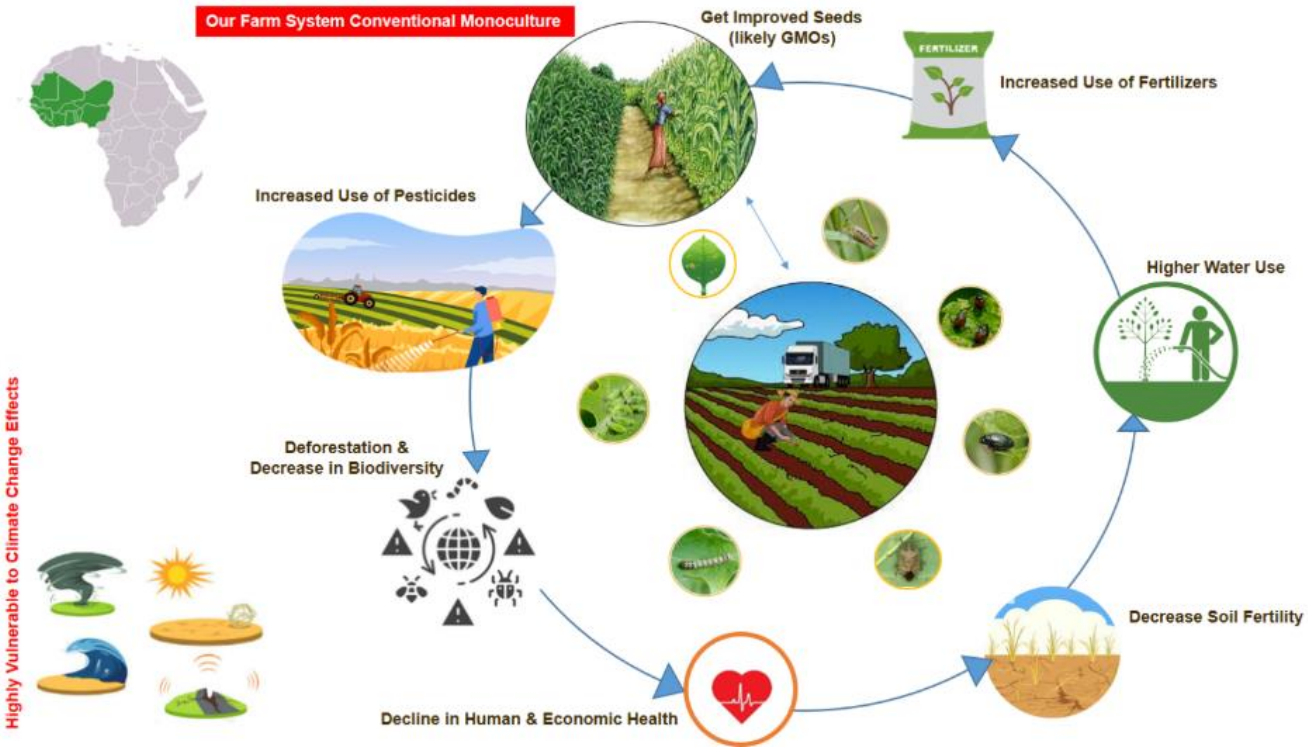
□ G. Documentation and Monitoring

- ☐ Baseline data collected
- ☐ Regular monitoring reports available
- ☐ Before/after photos or video documentation
- ☐ Community feedback mechanisms in place
- ☐ External evaluation or partnership review conducted

□ H. Observer's Notes/Comments

(Add specific notes, quotes, or unique observations):

ANNEX 5: Analysis of the Diagram: Conventional Monoculture Farming System in West Africa



The diagram effectively illustrates how the conventional monoculture model, especially when combined with high input use and poor ecological management, leads to a downward spiral of declining soil health, reduced productivity, and increased vulnerability to climate change—challenges that are particularly acute in West Africa.

This diagram visually represents the negative feedback loop associated with conventional monoculture farming systems, particularly as practiced in West Africa.

1. Conventional Monoculture Start Point

- The system begins with monoculture—the repeated cultivation of a single crop species over large areas.
- Farmers often use improved seeds, which may include genetically modified organisms (GMOs).

2. Increased Use of Fertilisers

- To maximize yields from monoculture and improved seeds, farmers increase their use of chemical fertilizers.
- This practice is intended to replenish soil nutrients but can lead to nutrient imbalances and dependency on external inputs.

3. Higher Water Use

- Fertilizer-intensive monocultures often require more irrigation to sustain high productivity.
- This can strain local water resources, especially in arid and semi-arid regions of West Africa.

4. Decrease in Soil Fertility

- Over time, heavy fertilizer use without adequate organic matter or crop rotation degrades soil structure and reduces natural fertility.
- Monoculture exacerbates this by depleting specific nutrients and reducing soil biodiversity.

5. Increased Use of Pesticides

- As soil health declines and monocultures become more vulnerable, farmers resort to more pesticides to control pests and diseases.
- This can further harm beneficial soil organisms and pollinators.

6. Deforestation & Decrease in Biodiversity

- Expansion of monoculture often leads to deforestation and loss of natural habitats, reducing overall biodiversity.
- The ecosystem becomes less resilient to shocks, pests, and diseases.

7. Decline in Human & Economic Health

- The cumulative effects of soil degradation, water stress, pesticide exposure, and biodiversity loss lead to declining agricultural productivity.
- This results in negative impacts on human health (due to chemical exposure and poor nutrition) and economic health (due to reduced farm incomes and increased input costs).

8. Increased Vulnerability to Climate Change

- The system is highly vulnerable to climate change effects (depicted on the left):
    - Droughts, floods, heatwaves, and land degradation become more severe.
    - The farm system lacks the resilience to adapt, perpetuating the negative cycle.

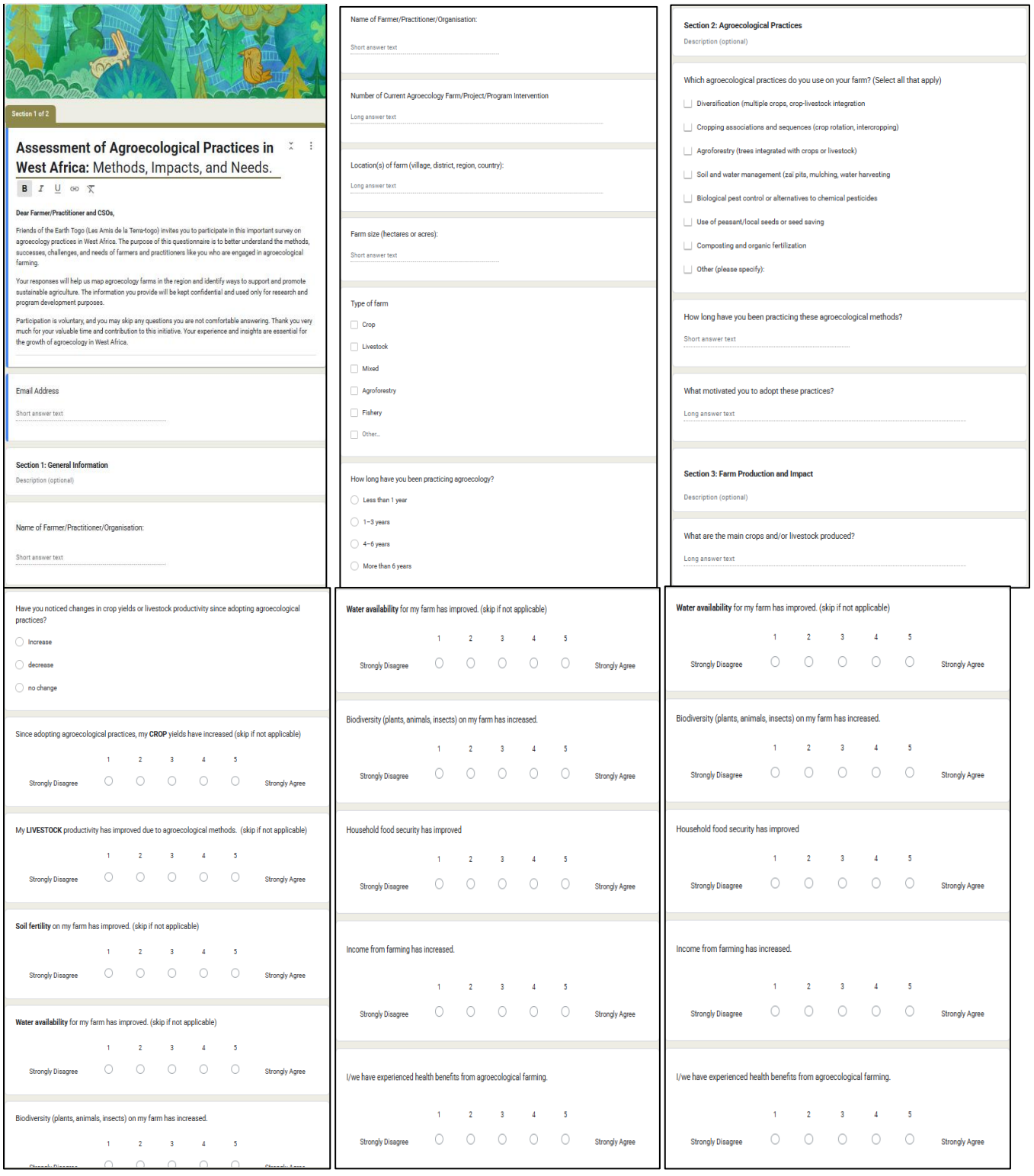
Key Messages from the Diagram

- Monoculture and input-intensive farming create a vicious cycle of environmental degradation, economic vulnerability, and declining human health.
- Soil fertility and water resources are depleted, while biodiversity is lost, making the system less resilient to shocks.
- Reliance on chemical inputs (fertilizers and pesticides) may offer short-term gains but undermines long-term sustainability.
- Climate change amplifies these vulnerabilities, threatening food security and livelihoods in West Africa.

Implications for West Africa

- This diagram highlights why sustainable farming practices—such as crop rotation, agroforestry, integrated pest management, and organic amendments—are urgently needed in the region.
- Transitioning away from this cycle is essential for restoring soil health, increasing resilience, and ensuring food security for millions of people.

ANNEX 6: THE SURVEY INSTRUMENT



Section 1 of 2

Assessment of Agroecological Practices in West Africa: Methods, Impacts, and Needs.

Dear Farmer/Practitioner and CSOs,

Friends of the Earth Togo (Les Amis de la Terra-togo) invites you to participate in this important survey on agroecology practices in West Africa. The purpose of this questionnaire is to better understand the methods, successes, challenges, and needs of farmers and practitioners like you who are engaged in agroecological farming.

Your responses will help us map agroecology farms in the region and identify ways to support and promote sustainable agriculture. The information you provide will be kept confidential and used only for research and program development purposes.

Participation is voluntary, and you may skip any questions you are not comfortable answering. Thank you very much for your valuable time and contribution to this initiative. Your experience and insights are essential for the growth of agroecology in West Africa.

Email Address

Short answer text

Section 1: General Information

Description (optional)

Name of Farmer/Practitioner/Organisation:

Short answer text

Name of Farmer/Practitioner/Organisation:

Short answer text

Number of Current Agroecology Farm/Project/Program Intervention

Long answer text

Location(s) of farm (village, district, region, country):

Long answer text

Farm size (hectares or acres):

Short answer text

Type of farm

- Crop
- Livestock
- Mixed
- Agroforestry
- Fishery
- Other...

How long have you been practicing agroecology?

- Less than 1 year
- 1–3 years
- 4–6 years
- More than 6 years

Section 2: Agroecological Practices

Description (optional)

Which agroecological practices do you use on your farm? (Select all that apply)

- Diversification (multiple crops, crop-livestock integration
- Cropping associations and sequences (crop rotation, intercropping)
- Agroforestry (trees integrated with crops or livestock)
- Soil and water management (zaï pits, mulching, water harvesting
- Biological pest control or alternatives to chemical pesticides
- Use of peasant/local seeds or seed saving
- Composting and organic fertilization
- Other (please specify):

How long have you been practicing these agroecological methods?

Short answer text

What motivated you to adopt these practices?

Long answer text

Section 3: Farm Production and Impact

Description (optional)

What are the main crops and/or livestock produced?

Long answer text

Have you noticed changes in crop yields or livestock productivity since adopting agroecological practices?

- Increase
- decrease
- no change

Since adopting agroecological practices, my **CROP** yields have increased (skip if not applicable)

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

My **LIVESTOCK** productivity has improved due to agroecological methods. (skip if not applicable)

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Soil fertility on my farm has improved. (skip if not applicable)

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Water availability for my farm has improved. (skip if not applicable)

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Biodiversity (plants, animals, insects) on my farm has increased.

1 2 3 4 5

Water availability for my farm has improved. (skip if not applicable)

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Biodiversity (plants, animals, insects) on my farm has increased.

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Household food security has improved

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Income from farming has increased.

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

I/we have experienced health benefits from agroecological farming.

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Water availability for my farm has improved. (skip if not applicable)

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Biodiversity (plants, animals, insects) on my farm has increased.

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Household food security has improved

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

Income from farming has increased.

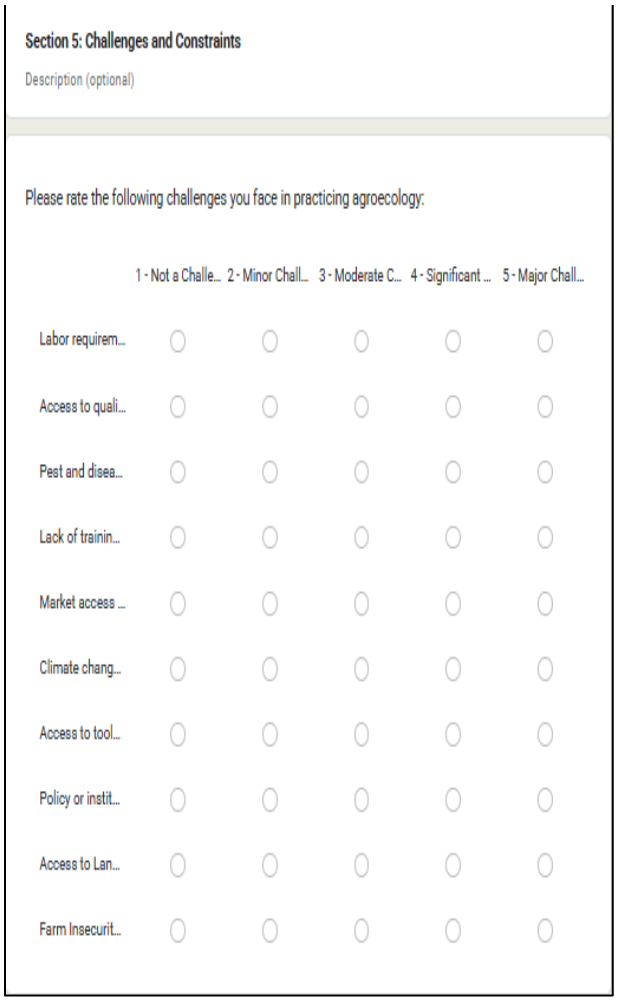
1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

I/we have experienced health benefits from agroecological farming.

1 2 3 4 5

Strongly Disagree ○ ○ ○ ○ ○ Strongly Agree

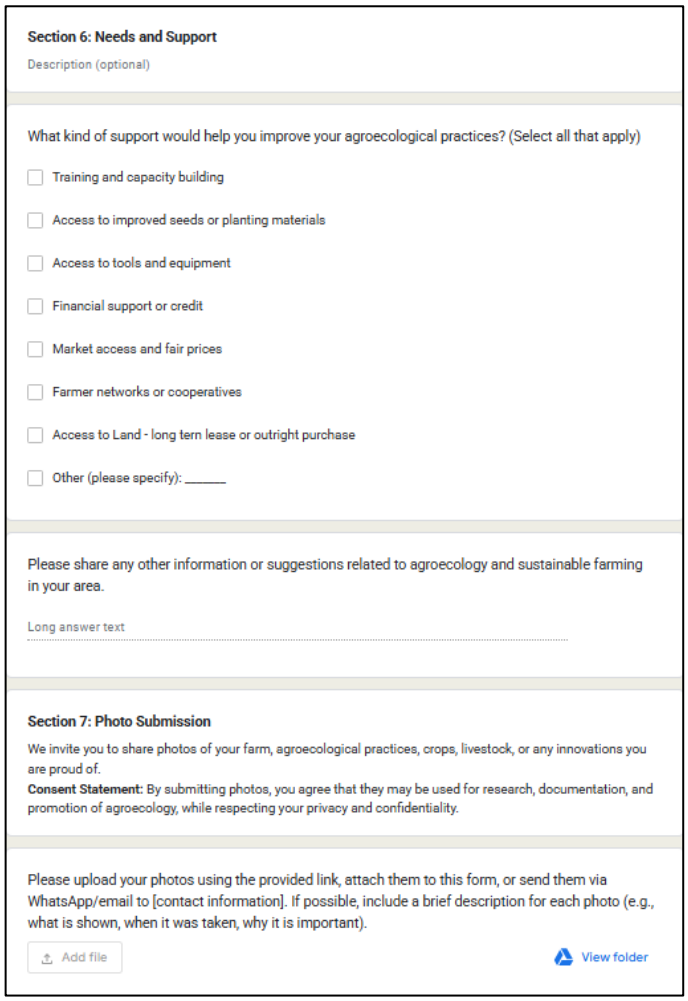


Section 5: Challenges and Constraints

Description (optional)

Please rate the following challenges you face in practicing agroecology:

	1 - Not a Challe...	2 - Minor Chall...	3 - Moderate C...	4 - Significant ...	5 - Major Chall...
Labor requirem...	○	○	○	○	○
Access to quali...	○	○	○	○	○
Pest and disea...	○	○	○	○	○
Lack of trainin...	○	○	○	○	○
Market access ...	○	○	○	○	○
Climate chang...	○	○	○	○	○
Access to tool...	○	○	○	○	○
Policy or instit...	○	○	○	○	○
Access to Lan...	○	○	○	○	○
Farm Insecurit...	○	○	○	○	○



Section 6: Needs and Support

Description (optional)

What kind of support would help you improve your agroecological practices? (Select all that apply)

- ☐ Training and capacity building
- ☐ Access to improved seeds or planting materials
- ☐ Access to tools and equipment
- ☐ Financial support or credit
- ☐ Market access and fair prices
- ☐ Farmer networks or cooperatives
- ☐ Access to Land - long tern lease or outright purchase
- ☐ Other (please specify): _____

Please share any other information or suggestions related to agroecology and sustainable farming in your area.

Long answer text

Section 7: Photo Submission

We invite you to share photos of your farm, agroecological practices, crops, livestock, or any innovations you are proud of.

Consent Statement: By submitting photos, you agree that they may be used for research, documentation, and promotion of agroecology, while respecting your privacy and confidentiality.

Please upload your photos using the provided link, attach them to this form, or send them via WhatsApp/email to [contact information]. If possible, include a brief description for each photo (e.g., what is shown, when it was taken, why it is important).

Add file View folder

SEE LINK TO SURVEY - https://forms.gle/K91imjBBkoLLRdkw7