



Training: a key lever for agroecology development in West Africa



Training stakeholders is clearly at the heart of a strategy to promote agroecology and accelerate the agroecological transition. The work carried out by ECOWAS in this area aimed to assess the supply and demand for skills and formal training at the technical secondary and higher education levels in agroecology and sustainable agriculture. The objective was also to formulate recommendations for Member States and at the regional level. This was with the perspective of fostering adequate and accessible training offers that better respond to the challenges of the agroecological transition and sustainable agriculture.

An analysis of training supply and demand in fifteen countries

The assessment covered all fifteen ECOWAS countries and aimed to identify relevant skills and professions linked to the agroecological transition and sustainable agriculture, to map the existing formal training opportunities in these fields, and to propose relevant recommendations for mainstreaming agroecology in secondary and higher agricultural education.

The approach allowed for a multi-scalar analysis of agroecology, including:

- Agroecological and/or sustainable practices at the farm level;
- Value creation based on agroecological and/or sustainable production connecting producers and consumers within the same value chain;
- Sustainable and inclusive management of natural resources at the landscape or territorial level to improve ecosystem services and ensure equitable access;
- The formulation, implementation, and monitoring-evaluation of public policies to support agroecology development.

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Assessing training demand

Based on a cross-analysis of perspectives from a wide range of actors—training institutions, research and extension bodies, ministries, professional organizations, NGOs, and private companies—the study identified nine major challenges requiring twenty-six types of skills. From this, eight categories of professional profiles were defined (see box).

The eight professional profiles

The main professional profiles identified in the study are as follow. Each profile can be broken down into specialized sub-profiles.

- Field technician/agroecology and/or sustainable agriculture extension agent;
- Bio-input producer;
- Technical officer in agroecology and sustainable agriculture programs/projects;
- Technician or thematic expert in agroecology/sustainable agriculture;
- Researcher in agroecology and sustainable agriculture, with thematic specializations;
- Technician or expert in agroecological transition of rural territories;
- Specialist in strengthening producer or professional organizations, support services, sustainable value chains, and agroecology;
- Public policy specialist supporting the development of agroecology and sustainable agriculture.

A heterogeneous training offer in West Africa

The analysis of agroecology and sustainable agriculture training involved rural development, agriculture, livestock, fisheries, and forestry ministries, as well as technical and vocational education and higher education institutions.

The review covered levels, duration, objectives, content, methods, and learner profiles, starting with a mapping of degrees, curricula, and institutions.

The findings revealed that not all ECOWAS countries have favorable conditions for agroecology. Liberia, The Gambia, and Sierra Leone lack agroecology training programs. Others, such as Guinea-Bissau, Cape Verde, and Guinea, only offer non-degree courses. Countries such as Nigeria, Ghana, Mali, Niger, Benin, Togo, and Côte d'Ivoire offer both degree and non-degree programs. Only a few countries, notably Senegal and Burkina Faso, offer multi-level agroecology training.

In terms of the “degree of agroecological integration” of training programs, there is a mix of short vocational programs (maximum 1 year), technical and vocational education, short-cycle higher education (2–4 years / bachelor's), and long-cycle higher education (5+ years).

This analysis made it possible to develop a typology of formal agricultural training programs in agroecology and sustainable agriculture, based on three criteria: the national context and existing initiatives that are favorable to agroecology; the conceptual approaches to agroecology and the specific agroecological content of the training programs; and the levels of education.

Four main types of training were identified, each with two or three sub-types:

– Type 1: Short vocational training (≤1 year)

- 1a: Agroecology-specific degree/certificate (e.g. Senegal's CS in AE),
- 1b: Conventional degree with some AE practices (e.g. horticulture CS in Senegal, CQP in Benin—unconfirmed).

– Type 2: Vocational and technical secondary education

- 2a: Agroecology degrees (e.g. Ghana UCAES),
- 2b: Conventional secondary degrees incorporating AE (e.g. CAP in Mali – pilot in three centers: IFP de Bla – CAA Mpepsoba – ESAP Ségou; BT at INFPA in Côte d'Ivoire).

– Type 3: Short-cycle higher education (Bachelor's, 2–4 years)

- 3a: Agroecology degrees: DUT UGB, DUT at St Jean Eu-des Institute (Govié),
- 3a': Degrees in agroecology and organic agriculture: L3 ISAE–UCAD, Licence USSEIN,
- 3b: Conventional degrees with AE content: bachelor UNICV, Licence in Korhogo's Agropastoral Management Institute, ESA of INPHB (TS and Licence).

– Type 4: Long-cycle higher education (Master's and above)

- 4a: Agroecology degrees: Master GEDAH, Master in agroforestry (IPR), Master at Eudist Technological University Institute,
- 4b: Conventional degrees with AE content: INPHB-ESA Master's and engineering degrees, PhD UDS-WACWISA.

Cross-analysis of training supply and demand

A cross-analysis of the supply and demand for training in agroecology and sustainable agriculture reveals three categories of demand that remain largely unmet. These include: the need for training of field technicians/extension agents in agroecology and/or sustainable agriculture, as well as in bio-input production; the need for training of technicians and professionals with a broader vision to support the development of agroecology and sustainable agriculture; and finally, the need for professionals capable of supporting the design and implementation of public policies for the development of agroecology and sustainable agriculture.

When comparing the skills in demand with those currently offered, it becomes evident that a set of cross-cutting skills are either underdeveloped or entirely lacking. These include:

- The ability to develop a holistic or integrated understanding of the issues and challenges of agroecology;
- The capacity to conduct systemic analyses of production systems in order to propose relevant technical alternatives;
- The ability to carry out diagnostic assessments and/or capitalize on local experiences to design agroecology and sustainable agriculture development projects;
- The capacity to analyze the role and status of women within agroecological value chains;
- The ability to define and implement collaborative action-research processes;
- The successful implementation of income-generating activities within agroecological production systems.

The transversal aspects that emerged from the analysis must be linked to trainer qualifications, youth integration, partnerships and governance, infrastructure, funding, and the long-term outlook of training institutions.



Strengthening training provision and visibility

In light of the study's findings, the following recommendations are proposed. They aim to align the regional training system with the rapidly growing needs and expectations. Beyond encouraging and supporting countries —particularly those currently lacking such programs— to systematically develop degree-granting training in agroecology, the following four strategic directions apply across the region:

- Design and operationalize a regional observatory for the supply and demand of degree-level agroecology training in the ECOWAS area;
- Support the revision of vocational and technical education curricula;
- Promote and organize training of trainers;
- Promote pedagogical approaches that align with the concept of agroecology.

Implementing these recommendations should lead to an improved training offer by better aligning training supply and demand, enriching vocational and technical training curricula, and strategically strengthening the capacities of trainers.

They should also make it possible to place interdisciplinarity and co-construction of knowledge at the core of training, strengthen the link between theoretical and practical components, valorize local knowledge and know-how, and develop the cross-cutting skills required to support agroecological transition processes.

These strategic directions also encourage the development of knowledge-sharing networks through the pro-

motion of initiatives that feed and interconnect these networks, including via social media. The same applies to strengthening exchanges between training supply and demand.

Finally, the establishment of a permanent observatory on professions and skills will enable continuous monitoring and adjustment of training provision in line with demand, and will foster student exchange opportunities between countries—acting as a driver of greater societal integration.



To find out more

ECOWAS Commission, Regional Agency for Agriculture and Food, Study on the status of agricultural training provision (technical and vocational secondary education and higher education) related to agroecology and sustainable agriculture

(Document available in French only)

in ECOWAS countries. 2023.

https://www.araa.org/sites/default/files/2024-11/Etude%20ESA_Rapport%20final%20CEDEAO.pdf

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