



# The agroecology newsletter

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# Investing in training and participatory research for sustainable food security

WEST AFRICA is at a crucial crossroads, where the challenges of food security, climate change and demographic growth call for innovative and sustainable responses. The training of young people and partnerships between professional agricultural organisations, research centres and training institutions are essential to disseminate good agro-ecological practices. Investing in young people and

consolidating these partnerships will ensure a resilient future for the region.

Young people are the future of agriculture in West Africa! Dynamic and able to innovate, they need appropriate training that integrates practical and theoretical knowledge of agroecology. This approach combines agricultural production and the preservation of ecosystems, proposing sustainable solutions such as diversified crops, integrated pest management and the natural improvement of soil fertility. By training young people in these practices, we equip them to improve their livelihoods and become agents of change in their communities.

In addition, partnerships between professional farming

organisations, research centres and training institutions are catalysts for the dissemination of agro-ecological practices. Professional farming organisations are familiar with local realities, research centres develop innovations adapted to the region, and training institutions pass on existing knowledge and that generated by these partnerships to young farmers. These partnerships create a synergy in which each player contributes to sustainable and resilient agriculture adapted to the specific needs of producers.

The adoption of agroecological practices can transform agriculture in West Africa, increasing productivity while reducing dependence on chemical inputs. By strengthening biodiversity and soil health, agroecology contributes to resilience in the face of climate shocks. The young people trained become ambassadors for these methods, sharing their knowledge with their peers and communities, with the potential to revolutionise regional agriculture.

Financial support from ECOWAS and the Member States for training centres and innovative partnerships between professional agricultural organisations and research and training centres is a crucial strategic investment, both for sustainable and resilient agriculture and for the future of food security and sustainable development in West Africa.

Mrs Massandjé TOURÉ-LITSÉ, Commissioner for Economic Affairs and Agriculture, Ecowas Commission

#### The number...



The number of Sustainable Development Goals (SDGs) to which agroecology contributes:

- zero hunger
- poverty eradication
- combating climate change
  - life on earth
- decent work and economic growth
- legal equality between the sexes
  - reduction of inequalities

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#### **Echoes from the field**

#### Agroecology and the development of market gardening in Sierra Leone

In Sierra Leone, around 700 women in the Koinadugu district, organised into 70 market gardening groups, have come together in a cooperative to gain access to credit for inputs and to market their produce. Set up 30 years ago, the cooperative has a storage centre and markets mainly onions and tomatoes.

However, market garden production faces many challenges, not least disease, pests and soil exhaustion, which force them to abandon their plots regularly in order to produce in a new field. Women's access to land is not easy in Sierra Leone: not only does it require lengthy negotiations and the support of local authorities to find a plot, but tenure is precarious (the owner can reclaim his plot whenever he wishes) and the plots are not always well suited to market gardening.

Rather than changing plots at regular intervals, the cooperative members want to invest in agro-ecological techniques that will enable them to cultivate the same field over the long term: diversification and combination of crops, rotation, enrichment of the soil with organic fertilisers and green manures, use of natural means to combat pests and diseases, and so on. This could also enable them to save on inputs (fertilisers, pesticides) and thus improve their income.

The ECOWAS Agroecology Programme (PAE), through a partnership between the Ministry of Agriculture and the National Farmers' Federation of Sierra Leone, is supporting the organisation of farmers' field schools to disseminate agroecological techniques likely to meet the needs of women cooperators. One constraint that needs to be taken into account when choosing the techniques to be disseminated is the limited labour available to market gardeners, as paying day labourers is now one of their main expenses.

### **Initiatives**

#### Integrated rice-fish-vegetable farming: an innovative combination in Liberia

Supported by the EAP, the Tumutu Training Centre and the partnership between the AfricaRice research centre, the

Catalyst extension structure and the SuaYelle cooperative have introduced an innovative agro-ecological practice in



Liberia known as integrated rice-fish farming.

Integrated rice-fish farming involves raising fish in rice fields, often with the introduction of an improved variety of short-cycle rice planted in managed lowlands. This system includes the construction of habitats in the rice field to ensure that the fish remain in the water during cropping operations. Once cultivation is complete and the rice field is flooded, the fish emerge from their habitats to feed in the rice field and their excrement acts as a natural fertiliser, increasing rice productivity. This practice not only increases overall productivity and diversifies sources of income, but also significantly increases income from the same area of farmland, thereby improving food security.

The system can also be integrated with vegetable production on the pond berms. The nutrient-rich water

from the fish ponds fertilises the vegetables, creating a complementary agricultural cycle. Pig manure can also be added to the ponds to encourage the growth of algae, which serve as food for the fish. This integration of vegetables and fish into the local diet improves the nutrition of local populations.

Nearly 500 farmers in the Bong region of Liberia have already been trained in this practice, and their enthusiasm is palpable. However, challenges remain. Securing land rights is crucial if farmers are to feel confident about making the necessary investments. The cost of feeding fish and fry also represents a financial barrier. Addressing these issues is essential for the adoption and sustainability of this innovative practice, which represents a promising model for other regions of West Africa.

#### Agroecology on small farms in Benin: moving beyond sustainable land management technologies

The Agroecology in West Africa Programme is funding a participatory research partnership between the Fédération des Unions de Producteurs du Bénin (FUPRO), the Institut National des Recherches Agricoles du Bénin (INRAB) and Sol Consult Africa (SolCA).

For a number of years, the FUPRO-INRAB-SolCA partnership has been promoting fertilising plant seeds to ensure sustainable fertilisation and management of the land, providing an innovative response to the continuing impoverishment of the soil in central Benin (Djidja and Zogbodomey communes). Despite the interesting results obtained (increased yields), the systemic concerns of small-scale farmers in the region have led the partnership to adopt a new, more global approach consisting of agroecologisation (making farms agroecologically sensitive), based on 7 combined types of cultivated land management:

- 1. A hedge fence with various plants used as a windbreak that enables farmers to delimit and secure their land and limit the damage caused by animals;
- 2. Crop rotation and parcelling out to divide the fenced area into plots and facilitate the crop rotation plan;
- 3. Planted pathways between the floors with various plants and grasses;
- 4. Planting lines with perennial plants at regular intervals to optimise the effect of wind and moisture retention on the crops concerned within the interval;

- 5. Crop rotation in association;
- 6. Agroforestry plantation that combines fruit or timber trees with annual crops in the soil;
- 7. Production of fertiliser plant seeds to maintain or increase the productive capacity of the system.

In so doing, the farmer restores his soil, diversifies his production and sources of income with fruit plants and timber, while ensuring security of tenure and limiting damage from straying animals.

The major constraints remain the initial investment in labour and the acquisition of plants.



# Co-construction of a research-action project for an agro-ecological transition in Togo

In the prefecture of Tchamba (central region of Togo), the Institut Togolais de Recherche Agronomique (ITRA), the Institut de Conseil et d'Appui Technique (ICAT) and the Coordination Togolaise des Organisations Paysannes et de Producteurs Agricoles (CTOP) are pooling their efforts to promote agro-ecology.

Find out more about the research-action project in Tchamba aimed at promoting agroecology. This project, co-constructed with local farmers, researchers and institutional players, focuses on training young farmers and encouraging them to adopt sustainable practices. The aim is to build resilience to climate change and improve food security. Together, they are working to make agriculture more sustainable and resilient. To find out more: https://www.youtube.com/watch?v=pTPJhNbQTRs

## **Publications**

Community radio stations to amplify the message and encourage the adoption of good agro-ecological practices

Find out how community radio plays a crucial role in disseminating agro-ecological practices in West Africa. This video highlights the importance of local media in educating and raising awareness among farmers about sustainable techniques. By using local languages and reaching remote rural areas, community radio facilitates the adoption of environmentally-friendly methods and strengthens the resilience of farming communities. To find out more, watch the video:

https://www.youtube.com/watch?v=ZLf9fHZLyHg

Bokashi: the organic fertiliser that brings the earth back to life

Discover the importance of Bokashi or "quick compost" for fertilising the soil while respecting the environment! This rapid composting technique transforms organic waste into a rich fertiliser that improves soil fertility and agricultural productivity in a sustainable way. Click here to watch the video:

https://www.youtube.com/watch?v=9qObkuwjzdE

EAP field projects on video

https://www.youtube.com/watch?v=K3XzVKS12OU

The agroecology reduces carbon emissions, protects soils and biodiversity, cares for women, men, ensures their food and provides them with the livelihoods to protect, educate and care for their children, the future generations.



Director of publication: Mohamed Zongo Editor-in-chief: Francis Dabiré Editorial coordination: Borgui Yérima Photographies: ECOWAS, Bureau Issala Layout: Emmanuel Jeudy

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Comments on this document can be addressed to the RAAF: ■ pae@araa.org

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