



Vocational training and integration of young people into agroecological systems

Introduction

Vocational training plays a key part in preparing young people and producers to engage in agroecology. An analysis of agroecology training provision in the ECOWAS region was carried out as part of a study conducted under the West Africa Agroecology Programme.

It enabled to assess the strategies used to design agroecology training programmes, the extent to which agroecology has been integrated into current training curricula, the topics covered in the agroecology training offered, teaching and supervision methods and the mechanisms used to support young people as they integrate into agroecological systems. This analysis therefore explores ways of strengthening the vocational training of young people and facilitating their involvement in the implementation of agroecological production systems. The AEP has also provided various forms of support to fifteen (13) public and private training centres with a view to improving their agroecology training programmes.

This note is one of seven (7) thematic ones resulting from the capitalisation of the EAP. Its goal is to document the processes of improving diploma and non-diploma agroecology training provision and integrating young people into agroecological production systems. The analysis is based on a review of various works on experiences, including a study of agroecology training provision in the ECOWAS region, general interviews with key agroecology stakeholders at regional level, case studies of training centres supported by the EAP

in six countries in the region (Benin, Côte d'Ivoire, Ghana, Nigeria, Senegal and Togo) and the conclusions of a regional workshop to discuss the provisional results.

Summary of experiences

CHARACTERISATION OF AGROECOLOGY TRAINING CENTRES

BRIEF PRESENTATION OF THE CENTRES

The training centres supported by the EAP are both public and private. Some are autonomous, while others are part of a national public development structure. Their mission is generally to train agricultural technicians, formal and informal producer groups and agricultural producers, including both young people and women. While some training offers cover a wide range of crops, others focus on just a few. All the centres offer initial qualification training. However, continuing training courses are the most common. Some centres also offer diploma courses in agroecology. These courses, which last from 2 days to 6 months, enable participants to acquire technical and



› Tcham For training center, in Benin.

professional skills in agroecology. The improvements targeted by EAP support often relate to strengthening human resources, adapting curricula to incorporate agroecology and rehabilitating or setting up teaching infrastructures and teaching materials.

INTEGRATING AGROECOLOGY INTO TRAINING CONTENT

Depending on the specific features of the centres in terms of geographical location, focus on specific crops and experience in agroecology, the centres have identified the need to add new modules related to agroecology to complement or reinforce those already provided. For example, some centres have introduced (i) new production activities such as the processing of crop residues and the exploitation of by-products, (ii) new technical skills, (iii) entrepreneurial skills and (iv) more cross-disciplinary skills such as the integration of digital tools for farm management and the management of land conflicts in rural areas.

Agroecology seems to be perceived differently depending on the centre. Some centres do not use synthetic chemicals at all in their own farming activities, while others are more oriented towards sustainable agriculture. In some centres, all the training offered since their creation has been in agroecology. Other centres, on the other hand, offered training in agriculture that included agroecological practices. However, it was not until the advent of the EAP that these centres set up a full agroecology training programme alongside training in conventional agriculture.

MAIN TOPICS COVERED IN TRAINING COURSES

Agroecology training courses cover a variety of topics, depending on the target audience, the type of training and the duration of the course. Continuing training courses for producers and/or agricultural technicians cover ecological agriculture, the integration of farming and livestock, agroforestry, biological control, fertilisation, crop rotation and mulching, permaculture, agricultural techniques adapted to climate change, and the processing and marketing of agricultural products. The topics covered in initial qualification training for young people or new entrants to agriculture often cover the basics of sustainable agriculture, the principles of agroecology and their applications. Diploma courses are offered to young people and include structured courses on agronomy, soil management, agroecological techniques, fish farming and integrated animal husbandry. Entrepreneurship and digital technology are often given a low profile in these courses.

DEVELOPMENT OF TRAINING PROGRAMMES

Agroecology training programmes are defined by the supervisory structure in public training centres, or by the farm manager or experienced members of the producers' organisation who run the training centres in the private sector. The programmes are developed in the centres (i) by taking account of the concerns and difficulties encountered by the various target groups, collected and reported by the field agents who are in direct contact with the producers, (ii) by drawing on endogenous knowledge and the local knowledge of the communities, and/or (iii) by making the most of the results of research and experience acquired during previous training courses. Observations



of the application of practices in farmers' field schools, demonstration plots or during farm visits reveal needs which are then prioritised and translated into modules.



TRAINING THE TRAINERS

The training centres employ in-house trainers chosen from among the best former students and trainees. They receive ongoing capacity building as soon as they are recruited to the centre or to centres specialising in agroecology. The centres also use external resource persons for training courses requiring a high level of expertise. Centre trainers are trained to acquire theoretical and practical knowledge of agroecology, as well as pedagogical and andragogical skills. Training for trainers includes participatory training methodology, monitoring and evaluation of agroecological practices and practical workshops and field placements. There is often no well-defined capacity-building plan.



MATCHING TRAINING CONTENT TO THE NEEDS OF THE AGRICULTURAL SECTOR

The heads of the training centres believe that the content of the training offered is well suited to the needs of the agricultural sector. While some base their assessments on the technical and managerial performance of beneficiaries (good use of management tools, planning skills, good resource management, etc.), others see it as a means of developing relevant responses to the sustainability challenges facing agricultural production systems (soil degradation, decline in biodiversity, climate change, heavy dependence on chemical inputs, etc.). Still others emphasise the relevance of the training courses to global and national political trends towards agroecology.

AGROECOLOGY TEACHING AND SUPPORT METHODS IN THE CENTRES



TEACHING METHODS USED IN TRAINING COURSES

The training courses offered in the centres comprise 70-80% practical application. Training methods vary according to the type of training, the learning objective and the target groups. Even when it comes to theory, the materials used vary depending on the target group. For well-educated people, especially in diploma courses, PowerPoint presentations and support documents are used. For less educated people, particularly producers, visual aids are preferred. Practical learning is based on experience, demonstrations, practical workshops, field visits and personalised follow-up. For producers undergoing initial training, a practical and participative method based on learning through experience is favoured. In some centres, learning begins with practice or role-playing to enable learners to discover things by themselves. These training centres implement production activities in which learners participate. In other cases, on the other hand, training appears to be traditional, with the trainer providing all the training, or virtual training via WhatsApp for vulnerable women who have difficulty accessing the centres



USING ICT TO FACILITATE LEARNING

The Information and Communication Technologies (ICTs) generally used in training courses are videos, video projectors and laptops during lessons, local radio stations to broadcast training-related information, and collaboration tools to facilitate exchanges. Collaboration tools such as WhatsApp groups have been set up to facilitate monitoring during training as well as post-training monitoring of learners. At present, training centres are not at the same level in their use of ICTs, which remains limited due to difficult access to the Internet and electrical power. Some centres are also opting for an "active and human approach" to ensure that knowledge is better appropriated, rather than integrating ICTs into the training.



SUPPORT FOR LEARNERS ON THEIR TRAINING AND INTEGRATION PATHWAY

Agroecology training courses are much more time-consuming due to their complexity and the need to consider the specific characteristics of each learner. During the course, learners often take part in real agroecological production projects, gaining valuable experience and directly applicable technical and practical skills. Some centres offer work experience opportunities on agroecological farms and with local partners, enabling learners to familiarise themselves with the professional environment during their training.

The centres face financial and logistical difficulties in providing post-training follow-up. The most common



› Chicken coop at the Gagnoa-Lakota training centre (Côte d'Ivoire) where various agroecological practices are implemented.

practice is to set up a WhatsApp group bringing together trainers and trainees to facilitate exchanges between the participants in each class. The centres then develop various practices depending on the facilities available. Some centres offer technical support, professional contacts with NGOs and businesses, or support for the creation of cooperatives of former trainees who own farms.

agroecology offers them, who benefit from a favorable environment and who have the necessary skills can become involved. A combination of educational, financial and practical support measures encourages young people to take up agroecology. These include ongoing training, post-training follow-up, improving the attractiveness of agroecology and promoting it as a business opportunity, and facilitating access to resources, services and markets.

ENCOURAGING ENTREPRENEURSHIP

INCLUSION OF ENTREPRENEURSHIP MODULES IN TRAINING PROGRAMMES

The issue of entrepreneurship is dealt with in different ways in the centres. Most of them offer new income-generating activities such as beekeeping, market gardening and the processing of agricultural products to encourage entrepreneurship in agroecology. Some training centres deal with entrepreneurship only briefly or in general terms, while others make it an important component. In these centres, modules related to entrepreneurship, the marketing of agroecological products and funding mechanisms are introduced.

MAIN MEASURES TO ENCOURAGE YOUNG PEOPLE TO START UP IN AGROECOLOGY

Evidence from actions funded by the EAP shows that young people who are aware of the opportunities that

EVALUATING THE EFFECTIVENESS OF AGROECOLOGY TRAINING COURSES

Some training centres seem to have well-developed criteria for measuring the internal and external effectiveness of training, while others do not. In some centres, the assessment of effectiveness is based on a self-assessment approach, which takes several criteria into account. An analysis of the learners' interest in the training and their level of satisfaction is carried out to measure the match between the content taught and their expectations. Next, a post-training follow-up is carried out, even if this is not systematic for all learners, to check whether the knowledge acquired is being put into practice in the field. This follow-up, which is sometimes facilitated by WhatsApp forums, enables feedback to be gathered on the difficulties encountered and the impact of the training. The results of this evaluation are essential for continually improving training courses and adapting programmes to changes in the sector.

Lessons learnt and conclusions

Benefits and challenges

The AEP intervention has increased the training capacity of the centres in terms of availability of infrastructure or teaching workshops, teaching resources (curricula, training modules), trainers qualified in agroecology, and diversification of sources of income. The results obtained in the field indicate that up to 90% of those trained in certain centres are active producers who apply what they have learned. Effects resulting from the reinforcement of the training systems by the AEP are primarily economic (income generation for training beneficiaries), ecological (sustainability of production systems) and health-related (healthy local products).

Several centres do not offer specific training for women but reserve a 30% quota for them. Others organise specific training for groups of women while reserving a quota for women in the other training courses. The strengthening of training systems has led to better access for women to training and to the application of agroecological practices on their farms. The impact of capacity building on women is often limited compared with men because of labour constraints (working time and arduousness) linked to certain agroecological practices.

Young people are often more interested in initial training courses that teach them the basics of sustainable agriculture, the principles of agroecology and how to apply them. Despite the efforts made, few young people manage to set up profitable agroecological farms after their training. The main obstacle is limited access to the financial and land resources needed to launch projects. In addition, formal employment opportunities in agroecology remain limited. Many young people lack personalised follow-up after training, which hampers the success of their initiatives.

The main difficulties encountered by the training centres that have limited the benefits include the very short timeframe in relation to the project objectives, as well as delays in funding, which hamper the planning and execution of activities. These difficulties have had a significant impact on the achievement of objectives, for example in terms of the proportion of beneficiaries trained. The lack of a budget allocated to the centres' human resources has also weighed heavily, affecting staff motivation and generating additional costs.

Conditions for implementation and success

The AEP came at an opportune time to support the centres in developing their agroecology training facilities. It enabled investment to be made in infrastructure for reception and experimentation, as well as in teaching equipment. However, it takes time to achieve tangible results, and the duration of the AEP was relatively short.

To increase the chances of success, training programmes must address the needs of the learners. Involving them in defining training programmes and integrating or making the most of local resources will ensure that agroecological practices are adapted. For the implementation of training courses, well-trained and regularly updated trainers are essential to maintain the quality of the programmes.

To encourage young people to take up agroecology, it is crucial to put in place a combination of educational and financial measures and practical support. These measures include, for example, raising awareness, facilitating access to land and mechanised services, subsidising agroecological inputs and creating specific markets with the aim of getting young people to see agroecology as an attractive activity and a business opportunity. Collaboration with agricultural service institutions (financing, inputs, advice, markets, etc.) makes it possible to provide systemic support to trainees in making the most of the knowledge they have acquired or in implementing their agroecological installation projects.

Supporting trainees as they set up their businesses through regular monitoring, advice and support, which must be provided over the long term, is crucial to ensuring that the benefits of training are fully exploited. To ensure structured and regular post-training follow-up, the centres need more human, financial and logistical resources. This is particularly the case for organising visits to farms run by producers who have received training. These resources would enable the centres to (i) develop follow-up programmes to provide ongoing technical assistance, (ii) facilitate access to agroecological farming inputs, and (iii) develop mentoring programmes by pairing young trainees with experienced producers to guide them. Training contracts between training centres and other organisations could include post-training follow-up.



➤ Experimental site for pineapple-cashew intercropping at the Tumutu Agriculture Vocational Training Center (TAVTC) in Liberia.

Sustainability conditions

The sustainability of agroecology training courses depends largely on the funding and quality of the courses offered. The sustainability of financial resources requires the mobilisation of external funding, the creation of income-generating activities and the introduction of fee-paying training courses. Income-generating activities initiated in some centres include market gardening, livestock rearing, beekeeping, product processing and making use of by-products.

The ability to offer quality training is also a *sine qua non* for sustainability. The existence of a wide range of teaching materials, adapted to the different areas of agroecology, are educational assets that will continue to be useful to training centres for many years to come. The availability of trainers who have already been trained is a major human resource asset in ensuring the sustainability of training courses, thereby guaranteeing ongoing expertise. The existence of accommodation facilities means that learners can be welcomed on a regular basis over a long period. The sustainability of training is also linked to the suitability of the training offered in relation to the needs of producers and the local context, and to the development of partnerships. By mobilising partnerships, training can be linked to other agricultural services such as research, input supply, agricultural advice and financing.

Scaling conditions

Scaling up agroecology training involves a few conditions. In scaling up training, it is important to review the programmes and agricultural activities implemented by the centres and to train the trainers in agroecology.

To facilitate take-up, a wide range of possibilities for integrating agroecology should be developed, to give training centres a choice to suit their specific needs. For example, centres can be supported in implementing specific training courses in the links in the agroecological value chains of their choice. Their capacity to adapt must also be strengthened so that they are able to serve larger, more diversified audiences with changing needs.

Facilitating access to and securing land is necessary to attract more young people and women to agroecology training courses. Establishing partnerships with producers' organisations and farm advisory services is also a prerequisite if training centres are to have access to financial resources.



Public policy recommendations

Various recommendations can be made concerning the incentive measures, frameworks and support systems that can be implemented by national, local and regional authorities to encourage the sustainability and scaling-up of agroecology training. Implementing these recommendations will help attract young people and producers to training centres and enable them to improve their teaching and support services and practices

TO IMPROVE TRAINING ONE SHOULD:

- Develop a programme of technical, material and financial support for training centres involved in, or wishing to become involved in, updating and/or developing new training offers in all links of the agroecological value chains.
- Raise awareness among young people of the importance of agroecology, not only as a source of income, but also as a key sector for the sustainability and future of our society. This can be done using social media and in schools, among other ways, and will ensure that training centres have a clientele.
- Improve the attractiveness of agroecology by facilitating access to agroecological inputs and mechanised services to reduce the drudgery of work and the creation of a support fund for young agroecological entrepreneurs. The aim is to enable young people to overcome financial obstacles and facilitate reliable access to essential resources such as electricity and water. Organising competitions can help to further stimulate young people's interest for agroecology training.
- Support the introduction of training in business creation and management, including the use of agricultural products and by-products as a business opportunity, and marketing to facilitate access to agroecology value chains.
- To promote the networking of public and private training centres with a view to pooling resources and sharing experiences in terms of training approaches, funding for training and professional integration.

IMPROVING PROFESSIONAL INTEGRATION:

- Encourage collaboration between training centres and agricultural service institutions (financing, inputs, advice, markets, land, etc.) to ensure systemic support for trainees in valorising most of the knowledge they have acquired or in implementing their agroecological installation projects.
- Support the introduction of a monitoring and evaluation system in the training centres: design questionnaires to gather regular feedback from learners and stakeholders on the effectiveness of the programmes, using relevant and varied indicators (income growth, market participation, employment and entrepreneurship rates, participation of women and their progression towards leadership roles, empowerment of young people and women, etc.).
- Facilitate the introduction of a post-training follow-up system at training centre level: monitoring graduates over a period of 2 to 5 years would make it possible to provide ongoing training, tailor-made support and measure the long-term impact of the training on their career path. This also includes support for mentoring programmes to help young entrepreneurs.
- Create an agroecology employment observatory: this tool could provide information on job opportunities and identify the skills most in demand with a view to guiding training content. It could be linked to the observatory on the employability of young people in the agro-sylvo-pastoral and fisheries sector.



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› Chicken coop at the experimental site for the agroecological integration of poultry and fish farming at the Kumasi Institute of Tropical Agriculture (Ghana).