

STUDY

EXPLORING THE POTENTIAL OF FARMERS' ORGANIZATIONS FOR AGROECOLOGY: OPPORTUNITIES AND CHALLENGES



NOVEMBER 2023

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ACKNOWLEDGMENT

This study was carried out by PAFO. The PAFO Secretariat in Kigali provided general guidance throughout the process and shared valuable information that enabled the analysis to be carried out in a meaningful way. Consultations were also carried out through contributions and insightful comments all the five (5) Pan-African Farmers Organization (PAFO) Member Networks in their respective regions. These are: The Eastern Africa Farmers Federation (EAFF), covering the eastern region; Plateforme Régionale des organisations paysannes d'Afrique Centrale (PROPAC), covering the central region; Reseau des Organisations Paysannes et des Producteurs Agricoles de l'Afrique de l'Ouest (ROPPA), covering the western region; Southern African Confederation of Agricultural Unions (SACAU), covering the southern region; and Union Maghrébine des Agriculteurs (UMNAGRI), covering the northern region. Information obtained from regional PAFO member organizations (during online interviews and exchanges in Tunis during the agroecology workshop) was also very useful in the construction of this report.

PAFO is grateful and sincerely acknowledge all the inputs and contributions received to produce this study report, most especially, we are grateful to the PAFO member networks for all the provided information and contribution.









PAFO would also like to thank the Organization of African, Caribbean and Pacific States (OACPS), the European Union (EU) and AgriCord who made this study possible thanks to the FO-RI project.



PAFO Secretariat Kigali, Rwanda





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LIST OF ACRONYMS

ACT: African Conservation Tillage

AET: Agroecological Techniques

AIDMR: Association Inter-zones pour le Développement en Milieu Rural

AMABIO: Association Marocaine du secteur de la production Biologique

AMM: The actor-matrix mechanism (AMM) approach

CIFOR-ICRAF: Center for International Forestry Research-International Center for Research in Agroforestry

CIRAD: Centre de Coopération Internationale en Recherche Agronomique pour le Développement

EAFF: The East African Farmers Organization

FAO: Food and Agriculture Organization

FEPABE : Fédération Professionnelle des Agriculteurs du Burkina Faso) **FOs:** Farmers' organizations

GIZ: Deutsche Gesellschaft für Internationale Zusammenarbeit

IAASTD: International Assessment of Agricultural Knowledge, Science and Technology for Development

IPAR: Initiative Prospective Agricole et Rurale

NGOs: Non-Governmental Organizations

PAFO: The Panafrican Farmers' Organization

PROPAC: La Plateforme Régionale des Organisations Paysannes d'Afrique Centrale **ROPPA:** Le Réseau des Organisations Paysannes et de Producteurs Agricoles d'Afrique de l'Ouest

SACAU: The Southern African Confederation of Agricultural Unions

SNV: Netherlands Development Organization

SOFITEX: Société de Fibre Textile

UGCPA: Union des Groupements pour la Commercialisation en commun des produits agricoles de la Boucle du Mouhoun

UMNAGRI: L'Union des Agriculteurs du Maghreb et de l'Afrique du Nord **UNPCB:** Union Nationale des Producteurs du Coton du Burkina **WWF:** World Wildlife Fund

ABSTRACT

The main challenges facing African agriculture include low productivity; rapid depletion of the natural resources; high levels of natural risk and uncertainty aggravated by climatic variability; overall limited uptake of agricultural technologies; an asymmetric connection between farmers and market; and limited access to extension facilities. In addition, the frequent exposition of farmers to droughts has largely contributed to accelerating land and resource degradation, thereby increasing many farmers' food insecurity. Considering these issues, many authors recognized the potential role of agroecology due its multiple economic, social, and environmental benefits. Agroecological techniques are developed based on the integration of ecological principles in farming activities and these include crop rotations, association of trees with crops, mixed crop-livestock integration, biological control of pests and diseases, and application of compost and manure. Most recently there has been a growing promotion of these techniques in many African countries with the aim of farmers' soil and crop health. The promotion of agroecology has always been the result of the interactions between NGOs and farmers' knowledge through the intermediation of their farmers' organizations-FOs. The implication of FOs in the overall process is due to the central place they have in the organization of developing countries' agriculture and this was amplified with the withdrawal of government in the sector after the implementation of the structural adjustment reforms promoted by the World Bank. Despite the renewed interest of FOs in the promotion of agroecology in many African countries, detailed information on the types of agroecological techniques promoted, their strategies, and the challenges encountered are yet to be identified.

PAFO wished to provide this crucial information by conducting a study that seeks to understand the current dynamics of FOs' promotion of agroecology so as to propose recommendations that will contribute to the facilitation of the African agroecology transition. From this aim, the following specific objectives were derived to explore the potential of farmers' organizations for agroecology:

- To identify the types and reasons for FOs' promotion of agroecology within the various regional networks;
- To explain the opportunities for FOs that are involved in the promotion of agroecology;
- To unravel FOs' strategy of promoting agroecology and challenges encountered, and propose solutions to overcome these challenges.

The results of the study revealed the existence of diverse types of agroecological techniques promoted by the five regional networks of FOs (from Central, Eastern, Northern, Southern, and Western regions). These range from techniques of soil and crop health improvement (e.g., mulching, manure, compost, biopesticides, resistant seeds, etc...) to those helping in soil and water conservation such as agroforestry, zaï, and stone-bunds. The main reason for FOs' promotion of agroecological techniques is thus connected to their strategy of improving the agricultural production of their members, which is necessary for increasing their market shares (concerning those

involved in commercial crops) and/or their members' resilience (regarding those involved in subsistence farming).



The FOs (within every regional network) are supporting their members' development of agroecology by broadly providing three types of services: provision of knowledge and learning; provision of credits and subsidies; and provision of marketing facilities. The provision of knowledge and learning services is centered on the organization of individual and group training (depending on the types of FOs and the regions), setting up demonstration plots, organizing classroom teaching, and facilitating farmers' knowledge exchanges in certain cases. Some FOs are also facilitating the organization of collective marketing of organic products with the highest prices, providing incentives such as subsidies (e.g., compost-making tools, bio-gas equipment, Faidherbia seedlings concerning some cases of West African FOs), and input credits.

Despite the central FOs in the development and implementation of agroecology in the African continent, the study reveals that they are currently confronted with multiple challenges. Among them include the limited availability of funding to sustain the organization of their support services (except in the cases of FOs involved in the marketing of organic products) and the little consideration of agroecology in national policy agenda. The study, therefore, call for African government to increase the agroecology mainstream in their current agricultural policy by establishment a well-defined subsidy policy in this regards. The study recommends to some African government to increase the promotion of self-organization within farming communities facing insufficient agroecology information issues such as the Maghreb and North African regions. The study also calls for FOs to increase the diversity of their promotion of crops grown based on ecological principles by engaging in the commercialization of both organic and non-organic certified products. This could help to reduce their financial dependency on external partners for continuity in organizing some support services like the provision of subsidies. Finally, the study also calls for some African FOs inclined towards practical forms of agroecology (that is those not necessarily promoting organic export crops) to integrate the global agroecology movement such as the transnational farmer-led movement called 'La Via Campesina'.



1. INTRODUCTION

1.1. CHALLENGES FACING AFRICAN AGRICULTURE

The development of smallholder agriculture in developing countries faces challenges and constraints related to persistent food insecurity (Kilelu et al. 2013). In many African countries, a rapidly growing population coupled with the growing food demand, alongside pressure on productive resources, are among the factors threatening food security (Pretty et al. 2011; The Montpellier Panel 2013; Kmoch et al. 2018). According to the International Assessment of Agricultural Knowledge, Science and Technology for Development-IAASTD (2009), the main challenges facing African agriculture include low productivity; rapid depletion of the natural resources; high levels of natural risk and uncertainty – aggravated by climatic variability; overall limited uptake of agricultural technologies; an asymmetric connection between farmers and market; and limited access to extension facilities. Furthermore, the frequent exposition of farmers to droughts caused by the climatic variability affecting north Africa and semi-arid areas of many sub-Saharan countries have largely contributed to accelerating land and resource degradation, thereby placing many farmers in a vulnerable position to food insecurity (Goetz et al. 2023; Iyabano 2023).

1.2. THE NEED FOR AGROECOLOGY AS A PROMISING SOLUTION FOR THE CHALLENGES FACING AFRICAN AGRICULTURE

Agroecology has been recognized as a potential solution to the current challenges of agriculture production by offering multiple economic, social, and environmental benefits (Wezel et al. 2009). Agroecological initiatives aim at proposing alternative paradigms to industrial agriculture based on the encouragement of local use of innovations and resources by smallholders (Altieri and Toledo 2011). Many agroecological techniques exist around the world and are applied in varying degrees according to regions and climatic conditions (Wezel 2017; Iyabano 2023). Examples of agroecological techniques include crop rotations, association of trees with crops, mixed crop-livestock integration, biological control of pests and diseases, and application of compost and manure (Wezel 2017; Mockshell and Kamanda 2018). In the context of Africa, several studies (e.g., Ameur et al. 2020; Gliessman 2020; Iyabano et al. 2023a; Iyabano et al. 2021; Debray et al. 2019) have highlighted the importance of agroecology in the development of continent's agriculture by contributing to improving soil and crop health. The importance of agroecology explained its mainstream in the agenda of many development NGOs working on land degradation issues in the continent. This consideration started during the first drought period with the promotion of improved traditional soil and water conservation techniques in many African countries and later intensified with the advent of organic agriculture technology in the early 2000s (Roose et al, 1999; Iyabano, 2023).

1.3. THE CENTRAL ROLE OF FARMERS' ORGANIZATIONS IN THE PROMOTION OF AGROECOLOGY

In the context of Africa, the promotion of agroecology has always been the result of the interactions between NGOs and farmers' knowledge through the intermediation of their farmers' organizations (FOs) . The implication of FOs in the development and spread of agroecology is due to the central place they have in the organization of developing countries' agriculture in general (Bakhuijs 2013) and the withdrawal of the direct government intervention in agriculture development activities after the implementation of the structural adjustment reforms (between the 1980s and 1990s) promoted by the World Bank (Mercoiret, Pesche, and Bosc 2008). Following these reforms, many African FOs started to be actively involved in agriculture development activities following the reduced role of governments imposed by the World Bank (Blein and Coronel 2013; Diagne and Pesche 1995; Jacob and Lavigne 1994). As intermediary organizations, FOs have now become central in establishing partnerships with public and private agriculture development actors to better access to resources necessary for the provision of knowledge and innovation services (Wennink and Heemskerk 2006; Chirwa et al. 2005).



FOs provide these services to members by creating favorable conditions for the production and utilization of agriculture knowledge, advocating farmers' interest, and integrating members into agricultural innovation systems. FOs have been found to implement community-based extension approaches through the creation of joint learning at the individual and organizational levels (Kiptot and Franzel 2019). As Iyabano et al. (2021) have indicated, FOs thus stimulate several different horizontal linkages (between farmers) and vertical linkages (with other organizations in the value chain and institutional system), and these linkages are often made in a complementary fashion. Specifically, a number of studies have highlighted the core contributions of FOs in the development of agroecology (Mier et al. 2018; Schiller et

al. 2020a; Schiller et al. 2020b). This is by providing space for farmer-to-farmer (or Campesino a Campesino) knowledge exchanges and funding the construction of agroecology schools (Altieri and Toledo 2011; Iyabano et al. 2023b; Mier et al. 2018). FOs can also provide special marketing facilities for products grown based on the integration of ecological principles like the case of organic certification (Mier et al. 2018; Schiller et al. 2020a).

1.4. STUDY AIM AND OBJECTIVES

This study aims to contribute to a better understanding of the current dynamics of farmers' organizations' promotion of agroecology by specifically focusing on existing opportunities and challenges so as to propose potential solutions for African agroecology development. From this aim, the following specific objectives were derived to explore the potential of farmers' organizations for agroecology:

- To identify the types and reasons for FOs' promotion of agroecology within the various regional networks;
- To explain the opportunities for FOs that are involved in the promotion of agroecology;
- To unravel FOs' strategy of promoting agroecology and challenges encountered, and propose solutions to overcome these challenges.

2. METHODOLOGY

This study is conducted by collecting data from documents research (desk review) and (virtual) interviews with some members of the regional networks of PAFO. The use of these methods helped to construct a generic interview guideline and the triangulation of information obtained from interviews in order to multiply sources of evidence necessary for the accuracy of the data. Document research consisted of reviewing the literature on the current dynamics of agroecology development in the African continent (by specifically focusing on the five regional networks) and the role of farmers' organizations within these dynamics. The organization of interviews was facilitated with the help of the PAFO's secretariat as they assisted in establishing contacts with the regional networks. Information obtained from the interviews include the overview of the regional networks, their definition of agroecology, the way their FOs promote agroecology as well as the current challenges and possible solutions for the transition towards more sustainable farming.

All the collected data were stored in Microsoft Excel and analyzed qualitatively by employing content analysis and actor-mechanism matrix approaches. Content analysis of interview transcripts, research papers, and policy documents helped to find meaningful information from the data gathered in order to explore the potential of farmers' organizations for agroecology in each region. The actor-matrix mechanism (AMM) approach helped to map the regional FOs' interaction with diverse actors involved in the promotion of agroecology by showing insights into both the structure (actor types) and functions of farmers' organizations as it gives indications on what types of actors the farmer organizations can collaborate with to access different resources necessary in the promotion of agroecology. Tables were used to present the findings related to the types of agroecological techniques promoted by the regional network FOs' promotion of agroecology, their strategy, and the current challenges related to such promotion. Quotes and pictures were also used in presenting some regional networks' perspectives on agroecology and the tools used by some FOs in this regard. The result of this study is presented during the agroecology workshop in Tunisia, where participants made some propositions that are further used in the development of a common position paper related to FOs and agroecology.

3. RESULTS



The Panafrican Farmers' Organization (PAFO) was created in October 2010 (in Malawi) by its constituent assembly under the sponsorship of the African Union. This constitutive assembly was the culmination of a process begun several years ago in collaboration with the five regional networks of Farmers' Organizations. PAFO is recognized as the representative body of African farmers' organizations at the highest continental level, based in Kigali. It brings the voice of 80 million African farmers

integrated into nearly 70 national organizations, unions, federations, cooperatives, associations, etc., present in almost 50 African countries, and united in five regional networks:



The East African Farmers Organization (EAFF): It was formed in 2001 and was registered in 2005 with the following functions: regional farmer empowerment through lobbying and advocacy for pro-poor policies; facilitation of trade through the promotion of regional integration and entrepreneurship; enhancement of food security, food sovereignty, and poverty alleviation; information management through appropriate acquisition packaging and dissemination active engagement of women and youth in agricultural development; natural resources and

biodiversity conservation.



The Regional Platform of farmers' Organizations from Central Africa (PROPAC): It was created in 2005 by the union of the national farmers' organizations of Central African countries. The mission of PROPAC is to harmonize the actions of its members so that the proposals of small agricultural producers are taken into account in the development of public policies at the national, regional, and international levels.



The Network of Farmers Organization and Agricultural Producers of West Africa (ROPPA): The ROPPA is an initiative specific t peasant organizations and agricultural producers of West Africa established in 2000. ROPPA has positioned itself as the tool for defending and promoting family farms which constitute the main production system in West Africa. Its operation is based on three main principles:

(i) peasant solidarity which gives a place to everyone by associating all categories of peasant organizations and agricultural producers in each country; (ii) consensus which is the preferred approach for deciding and acting together and; (iii) transparency by reporting and regularly ensuring the renewal of mandates.



The Southern African Confederation of Agricultural Unions (SACAU): SACAU is a regional farmers' organization that was established in 1992 with membership open to national farmers' unions and regional commodity associations in Southern Africa. SACAU is involved in agricultural development in the region by strengthening the capacities of national

farmers' organizations, providing a collective voice for farmers on regional and international matters, and providing agriculture-related information to its members and other stakeholders.



The Maghreb and North African Union of Farmers (UMNAGRI): It was established in 1989 with membership including seven national FOs in North African countries (including Mauritania and Sudan). The UMAGRI aims to promote collective action spirit among FOs in the region by consolidating cooperation and

coordination of efforts and action programs in light of economic developments at regional and international levels, including those related to agriculture.

3.2. TYPES OF AGROECOLOGICAL TECHNIQUES PROMOTED BY THE FOS, MEMBERS OF DIFFERENT REGIONAL NETWORKS

The study identified diverse types of agroecological techniques promoted by the FOs within the five regional networks (Table 1). These range from techniques of soil and crop health improvement to those helping in soil and water conservation. Promoted agroecological techniques include, mulching, manure, compost (an organic fertilizer created from a decomposed mixture of manure, crop residues, and water), legume crops (such as cowpea, and soybeans), zaï (Figure 1), the association of trees with crops (Figure 2), etc. The main reason for FOs' promotion of agroecological techniques is thus connected to their goal of improving the agricultural production of their members, which is necessary for increasing their market shares (concerning those involved in commercial crops) and/or their members' resilience regarding those involved in subsistence farming. The majority of these techniques are promoted based on the improvement of existing farmers' practices, due to their efficiency in restoring degraded lands and improving the overall farmers' agricultural production. This is important because many African farmers are constantly challenged by the increasing soil fertility depletion caused by climate change and extensive use of chemicals. This promotion is mainly facilitated by the establishment of relations between FOs (at different regional levels) with the supportive partners, which are dominantly NGOs.



Figure 1: Photography of zaï pits, a training material used by the Association Inter-zones pour le Développement en Milieu Rural-AIDMR, an FO in Burkina Faso. Source: Iyabano (2023).



Figure 2: Photography of association of trees with crops taken from one member of Union des Groupements pour la Commercialisation en commun des produits agricoles de la Boucle du Mouhoun-UGCPA, in Burkina Faso. Source: Iyabano (2023).

The promotion of the above-mentioned techniques (by many regional FOs) is thus the broader dynamic of ongoing experimentation of agroecology which was amplified during the famine of the 70s and 80s caused by the extensive droughts that struck many sub-Saharan countries. Many development NGOs continued to be active in this dynamic by providing necessary technical and financial assistance to FOs. Prominent among the NGOs promoting agroecological techniques include the Habi Centre for Environmental Rights (in Egypt), Terre et Humanisme (in Burkina Faso, Mali, and Togo), the World Vision International (in Uganda, Kenya, Burundi, etc), the Association for Better Land Husbandry-ABLH (in Kenya), the Deutsche Gesellschaft für Internationale Zusammenarbeit-GIZ) (in Malawi, Namibia, Zimbabwe, etc.). Besides NGOs, the study also shows the existence of other partners supporting FOs' promotion of agroecological techniques; these include actors from government and agro-companies. This mainly concerns some specific export crops with high market values such as those for organic products.

Typical examples are witnessed in countries like São-Tomé-et-Príncipe (members of PROPAC), Morocco (members of UMNAGRI), and Burkina Faso (ROPPA), where there are government and some agro-companies initiatives that support the production of organically certified crops such as cocoa (for São-Tomé-et-Príncipe), olive/citrus (for Morocco), and cotton (for Burkina Faso). These actors are assisting the development of organic products by facilitating targeted FOs' access to subsidies and credits for organic inputs (such as biopesticides). They are also helping some primary transformation of organic products like the case of organic cotton in Burkina. Targeted FOs are the Cooperative de Exportação de Cacau Biologico de São Tomé e Principe, the Moroccan association of the organic production sector (AMABIO), and the Union Nationale des Producteurs du Coton du Burkina (UNPCB).



The above results indicate how external partners have shaped some African FOs' opportunities to promote agroecology. This promotion is in line with the existing FOs' consideration of agroecological techniques as opportunities for improving their members' resilience to climatic variability, farm productivity, and overall profits. The

latter is mainly witnessed with FOs involved in the promotion of commercial farming such as organic certified export crops. These are thus promoting agroecological techniques as the necessity for complying with the certification standards which calls for the total absence of synthetic inputs use. Besides profits, some FOs consider agroecology as a good opportunity for strengthening their members' resilience thereby increasing the overall farm productivity. Examples of this consideration are explained in some regional networks' definition of agroecology in the following quotes: "Agroecology is a strategy that farmers use to adapt to climate change based on nature and ecological services" (EAFF). Or "Agroecology is the model of agriculture that respects the environment so that there is sustainability of natural resources, which suggests an ecological perspective without destruction" (PROPAC). Or "Agroecology, is a set of technologies to intensify production, to reduce the dependence, and to preserve natural resources positive values" (ROPPA).

Table 1: Overview of the types of agroecological techniques promoted by Farmers' Organizations

Regional network of Farmers' Organization	Types of agroecological techniques promoted (AET)			Examples of partners supporting
	Soil Fertility Management	Pests and Diseases Management	Soil and Water Conservation measures	some FOs' (members of regional network) promotion of AET
The East African Farmers Organization (EAFF)	-Compost, mulching and manure -Crop rotation, mixed cropping -Leguminous crops	-Biopesticides -Trap crop (push and pull)	Agroforestry, biochar and stone-bunds	-Bilateral and multilateral cooperation with national and international NGOs such as World Vision, GIZ, Biovision, Collectif Strategies Alimentaires, CIFOR- ICRAF, etc; -National policy actors concerning the development of organic crops and the promotion of trees crop association in countries like Kenya, Burundi.
The Regional Platform of farmers' organizations from Central Africa (PROPAC)	-Compost, mulching and manure -Crop rotation, mixed cropping	-Biopesticides -Improved local seeds	Agroforestry and biochar	 -National policy and research actors through cooperation between research institutes and some FOs like the case observed in Cameroon, São- Tomé-et-Príncipe; -Bilateral and multilateral cooperation with national and international NGOs like Action contre la Faim, Association des jeunes agroécologistes du Cameroun, Service d'Appui aux Initiatives locales de Développement, GIZ, SNV, CIFOR- ICRAF, etc

The Network of farmers Organization and Agricultural Producers of West Africa (ROPPA)	-Compost, mulching and manure -Crop rotation, mixed cropping -Leguminous crops	-Biopesticides -Trap crop (push and pull) -Improved local seeds	-Zaï -Stone-bunds, biochar, and Demi-lune -Agroforestry and biochar	 -National policy and research actors: cooperation between ROPPA and national umbrella FOs such as the FEPABE (Fédération Professionnelle des Agriculteurs du Burkina Faso); -Bilateral and multilateral cooperation with national and international NGOs such as Helvetas, Terre et Humanisme, Autre Terre, FAO, IPAR Senegal, CIRAD, African Conservation Tillage (ACT) network, etc; -Agro-companies like SOFITEX, Faso Coton.
The Southern African Confederation of Agricultural Unions (SACAU)	-Compost, mulching and manure -Crop rotation, mixed cropping	-Biopesticides -Trap crop (push and pull)	-Agroforestry and biochar	Bilateral and multilateral cooperation with national and international NGOs such as FAO, GIZ, WWF, African Conservation Tillage (ACT) network,
The Maghreb and North African Union of Farmers (UMNAGRI)	-Compost, and manure -Crop rotation, mixed cropping	Biopesticides	Agroforestry and biochar	Bilateral and multilateral cooperation with national and international NGOs like the Better Life Association, Habi Centre for Environmental Rights, CARI, Terre et Humanisme, etc; Cooperation between governments and various organizations of organic certified export products

Source: Based on information obtained from documents research and interviews with the regional network of farmer organizations.



3.3. TYPES OF SUPPORT SERVICES PROVIDED BY FOS, MEMBERS OF REGIONAL NETWORKS AND CHALLENGES ENCOUNTERED

The FOs (within every regional network) are supporting their members' development of agroecology by broadly providing three types of services: provision of knowledge and learning; provision of credits and subsidies; and provision of marketing facilities (Table 2). The types of services provided by FOs are largely according to the types of regional networks, with the highest frequency observed in the West African region (ROPPA). This situation is due to the long-time involvement of many types of FOs in the promotion of agroecology, which started during the early 70s with the advent of extensive droughts. The FOs' provision of knowledge and learning services is centered on the organization of both individual and group training (depending on the types of FOs and the regions), setting up demonstration plots (Figure 3), and organization of classroom teaching. Group training is set as formal group meetings during which some FOs' advisors explain and exchange with farmers on topics related to the importance of agroecology in improving soil and plant health. Examples of FOs organizing group training include the Concertation Nationale des Organisations Paysannes-CNOP (member of PROPAC) in Cameroon, the Union des Groupements pour la Commercialisation en commun des produits agricoles de la Boucle du Mouhoun in Burkina-UGCPA (member of ROPPA), the Egyptian Initiative for Collective Rights (member of UMNAGRI), the Zambia Alliance for Agroecology and Biodiversity (member of SACAU).



Figure 3: Photography of an example of a place prepared by one member of AIDMR to demonstrate the aerobic compost-making technique. Source: Iyabano (2023).

As a knowledge-intensive technology based on traditional practices, there are several informal training and knowledge exchanges on agroecology among farmers throughout the continent. Besides discussing general agroecology-related topics, some FOs involved in the production of organic export crops are specifically engaged in many individual and group training activities. The aim of this training is related to the obligation of their members to master and implement agroecological techniques in order to conform to the organic certification standards. The training is in the form of technical recommendations, and this concerned all the FOs producing export crops (regardless of their regional location). Examples of these FOs involved in the production of organic export crops include the Malawi Organic Growers Association (involved in growing garlic, ginger, cereals, maize, soya, legumes, coffee, tea, and vegetables); the Zimbabwe Organic Producers and Promoters Association (involve in the production of certified baobab, hibiscus, and other products).

In addition to knowledge and training, many FOs are also providing incentives such as subsidies (e.g., compost-making tools, bio-gas equipment, Faidherbia seedlings) and input credits. In the case of West Africa, FOs like UNPCB and UGCPA, are highly involved in subsidizing their members' access to inputs in credits for growing organic cotton and hibiscus respectively. They are doing so by cooperating with local credit institutions and sometimes supportive partners such as the Catholic Relief Services (concerning UNPCB) and the Agence Canadienne De Développement International-ACDI (regarding UGCPA). Furthermore, the organization of collective marketing of organic products by searching for potential buyers (exporters) with the highest prices is also part of the FOs' strategy of promoting farmers' implementation of agroecological techniques.



Although FOs are central in the development and implementation of agroecology in the African continent, the study reveals that they are currently confronted with multiple challenges. The main FOs' promotion of agroecology challenges are those related to the limited availability of funding to sustain the organization of their support services (except in the cases of FOs involved in the marketing of organic products). Other challenges are mostly linked to the current landscape of institutional environment in many countries where agroecology seems to have limited consideration in national policy agenda (see Table 2) as it is mainly the activities of NGOs. This explains the issues of insufficient information on the importance of agroecology reported by many farmers in the Maghreb and North African region (cf. Goetz et al, 2023) despite the fact their implementation of traditional practices is closely related to agroecology.

Table 2: Types of support services provided by FOs, members of regional networks, and challenges encountered

Regional network of Farmers' Organization	Types of support se regional networks	rvices provided by F	Major challenges faced by FOs, members of regional	
	Provision of knowledge and learning	Provision of credits and subsidies	Provision of marketing facilities	network
The East African Farmers Organization (EAFF)	Existence of capacity building programs	Provision of subsidies (e.g., trees seedlings obtained from partners) and some inputs credits for organic products	Searching for market opportunities of organic products	 -Lack of raw materials and funding for making agroecological inputs such as compost -Limited consideration in national policy agenda, except with some trees planting projects
The Regional Platform of farmers' organizations from Central Africa (PROPAC)	Organization of group training of ecologically-based techniques and organic agriculture	 Provision of micro-credits by some organic cooperatives Provision of available subsidies 	As above	-Lack of a common food and nutritional policy and limited collaboration between research institutes and FOs; -Insufficient access to climate change information and funding for small-scale farmers' agroecology -Limited consideration in national policy agenda, except with the case of São Tomé e Principe
The Network of farmers Organization and Agricultural Producers of West Africa (ROPPA)	-Facilitation of farmers-advisors exchange sessions at the beginning of the rainy season -Provision of technical training on organic hibiscus and organic cotton -Conduct of a participative selection of sorghum varieties	 Provision of subsidies (e.g. bio-gas materials and Faidherbia seedlings obtained from supportive partners) Provision of inputs credits for some organic crops 	Searching for market of organic export products and local agroecological products	 -Insufficient funding; -Incoherence between policy and practice -Limited consideration in the national policy agenda, except for some land restoration projects in the Savannah belt.

The Southern African Confederation of Agricultural Unions (SACAU)	Existence of local co-innovation platforms	Provision of available subsidies	Searching for market opportunities of organic products	 -Labor intensive for some techniques like compost making -Limited consideration in the national policy agenda as agroecology is still seen by actors as a concept of poverty trap in the region
The Maghreb and North African Union of Farmers (UMNAGRI)	Organizations of farmers' training courses on traditional and local crops, organic fertilizers, and irrigation methods	Existence of some government support (in terms of subsidies and/ or credits) of some export- oriented organic products	As above	 -Insufficient availability of knowledge and information on environmental degradation and the importance of agroecology in the region - Limited consideration in the national policy agenda, except the cases of organic export crops

Source: Based on information obtained from documents research and interviews with the regional network of farmer organizations.

4. CONCLUSION AND RECOMMENDATIONS

This study has explored the potential of farmers' organizations in the promotion of agroecology in Africa. This was done by identifying the types of agroecological techniques promoted within every regional network of FOs, the reason and strategy (through the types of support services provided) for FOs' promotion of these techniques, and the challenges encountered in the overall process. The study shows that African agroecology is a result of the hybridization of existing farmers' practices (of soil and plant health management) with practices (set of recommendations) brought with the advent of organic crop marketing. This hybridization explains the diversity of FOs' support services between the regional networks by showing the highest frequency within the West African region. While FOs are the central actors in the promotion of agroecology in Africa, the study shows that the organization of some of their activities largely depends on the availability of external partners (dominantly NGOs) especially the provision of incentives. Key steps towards the development of African agroecology would call for more government involvement in the overall promotion of agroecology including the establishment of a subsidy policy for agroecological farmers (just like the case with the conventional farmers) besides its existing initiatives for niche export products. This will help to match policy discourses to the real practices of agroecology usually mentioned by policy actors (especially in West Africa). Another recommendation is related to the call for the government's promotion of self-organization within farming communities facing insufficient agroecology information issues such as the Maghreb and North African regions. This could help many farmers to clearly know the benefits derived from the implementation of agroecological techniques. Furthermore, the study calls for FOs to increase the diversity of their promotion of crops grown based on ecological principles by engaging in the commercialization of both organic and non-organic certified products. This could help to reduce their financial dependency on external partners for continuity in organizing some support services like the provision of subsidies. Lastly, the study also calls for some African FOs inclined towards practical forms of agroecology (that is those not necessarily promoting organic export crops) to integrate the global agroecology movement such as the transnational farmer-led movement called 'La Via Campesina' to learn and benefit their broader experience in promoting sustainable practices.



5. REFERENCES

Altieri, M. A., Toledo, V. M. (2011). The agroecological revolution in Latin America: Rescuing nature, ensuring food sovereignty and empowering peasants. Journal of Peasant Studies 38 (3):587–612.

Ameur, F., Amichi, H., & Leauthaud, C. (2020). Agroecology in North African irrigated plains? Mapping promising practices and characterizing farmers' underlying logics. Regional Environmental Change, 20, 1-17.

Bakhuijs, E. (2013). The intermediary role of farmer organizations: Stimulating innovation in developing countries. Master thesis, Utrecht University, The Netherlands. Bellwood-Howard, I., Ripoll, S. (2020). Divergent understandings of agroecology in the era of the African Green Revolution. Outlook on Agriculture 49, 103-110.

Bezner Kerr, R., Nyantakyi-Frimpong, H., Dakishoni, L., Lupafya, E., Shumba, L., Luginaah, I., Snapp, S. S. (2018). Knowledge politics in participatory climate change adaptation research on agroecology in Malawi. Renewable Agriculture and Food Systems 33, 238-251.

Blein, R and Coronel, C. (2013). Les organisations de producteurs en Afrique de l'ouest et du centre : attentes fortes, dures réalités. FARM (fondation pour l'agriculture et la ruralité dans le monde). (Vol. 8). https://doi.org/10.4267/2042/51490.

Chirwa, E. & Dorward, A. & Kachule, R. & Kumwenda, I. & Kydd, J. & Poole, N. & Poulton, C. & Stockbridge, M. (2005). Walking tightropes: Supporting farmers organisations for market accessNatural Resource. Natural Resource Perspective, No, 99, p.(96).

Diagne, D., and Pesche, D. (1995). Les organisations paysannes et rurales: Des acteurs du développement en Afrique sub-saharienne. Réseau GAO, Groupe de Travail: Etat et Organisations Rurales. Chaire de Sociologie Rurale, INRA, Paris, France., 33(1).

El Ghmari, H., Harbouze, R., & El Bilali, H. (2022). Pathways of Transition to Organic Agriculture in Morocco. World, 3(3), 718-735.

Gliessman, S. (2020). Investing in agroecology in Africa. Agroecology and Sustainable Food Systems 44, 1253-1254.

Goetz, A., Hussein, H., & Thiel, A. (2023). Polycentric governance and agroecological practices in the MENA region: insights from Lebanon, Morocco and Tunisia. International Journal of Water Resources Development, 1-16.

Goldberger, J. R. (2008). Non-governmental organizations, strategic bridge building, and the "scientization" of organic agriculture in Kenya. Agriculture and Human Values, 25(2), 271–289.

Greenberg, S. 2013. Capitalist expansion and agri-food systems in the Southern African region: A study on the relationship between the Southern African Confederation of Agricultural Unions (SACAU) and small-scale farmer associations.

IAASTD. (2009). International Assessment of Agricultural Knowledge, Science and Technology for Development. A Synthesis of the Global and Sub-Global IAASTD Reports. Island Press, Washington DC.

lyabano A. 2023. Unravelling the positions, roles, and agency of Farmers' Organizations in the promotion of agroecology in Burkina Faso. PhD dissertation, Wageningen University and Research, the Netherlands. https://doi.org/10.18174/631067.

Iyabano A., Klerkx, L., Leeuwis, C. (2023a). Why and how do Farmers' Organizations get involved in the promotion of agroecological techniques in Burkina Faso? Agroecology and Sustainable Food Systems Journal.

Iyabano A., Leeuwis, C; Lie, R., Toillier, A., Waters-Bayer, A. (2023b). Making decisions about agroecological innovations: perspectives from members of farmers' organizations in Burkina Faso, International Journal of Agricultural Sustainability, 21:1, https://doi.org/10.1080/14735903.2023.2239056. Iyabano, A. Klerkx, L., Faure, G., Toillier, A. 2021. Farmers' organizations as innovation intermediaries for agroecological innovations in Burkina Faso. International Journal of Agricultural Sustainability, 20(5), 857–873. https://doi.org/10. 1080/14735903.2021.2002089

Jacob J.-P. & Lavigne Delville PH.(eds.). (1994). Les associations paysannes en Afrique: organisations et dynamiques (APAD/Karth). Paris.

Kilelu, C., Klerkx, L., Leeuwis, C. (2013). Unravelling the role of innovation platforms in supporting co-evolution of innovation: contributions and tensions in a smallholder dairy development programme. Agricultural Systems, 118, 65-77.

Kiptot, E. & Franzel, S. (2019). Stakeholder planning of the institutionalization of the volunteerfarmer–trainer approach in dairy producer organizations in Kenya: key steps and supporting mechanisms. International Journal of Agricultural Sustainability, 17(1), 18–33.

Kmoch, L., Pagella, T., Palm, M., & Sinclair, F. (2018). Using local agroecological knowledge in climate change adaptation: a study of tree-based options in Northern Morocco. Sustainability, 10(10), 3719.

Mercoiret, M. R., Pesche, D., & Bosc, P. M. (2008). Rural Producers Organizations for Pro-poor Sustainable agricultural Development. In Workshop Proceedings (Vol. 30, p. 31): Contribution to Mier y Terán Giménez Cacho, M., Giraldo, O. F., Aldasoro, M., Morales, H., Ferguson, B. G., Rosset, P., ... & Campos, C. (2018). Bringing agroecology to scale: Key drivers and emblematic cases. Agroecology and sustainable food systems, 42(6), 637-665.

Mockshell, J., & Kamanda, J. (2018). Beyond the agroecological and sustainable agricultural intensification debate: Is blended sustainability the way forward? International Journal of Agricultural Sustainability.

Pretty, J., Toulmin, C., & Williams, S. (2011). Sustainable intensification in African agriculture. International Journal of Agricultural Sustainability, 9(1), 5–24.

ProFound Advisers in Development, Organics & Development, Markus Arbenz. 2020. Boosting Organic Trade in Africa, IFOAM – Organics International, Bonn /Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bonn / Eschborn.

Schiller, K., Godek, W., Klerkx, L., Poortvliet, P. M. (2020b). Nicaragua's agroecological transition: Transformation or reconfiguration of the agri-food regime? Agroecology and Sustainable Food Systems 44, 611-628.

Schiller, K.J.F., Klerkx, L., Poortvliet, P.M., Godek, W. (2020a). Exploring barriers to the agroecological transition in Nicaragua: A Technological Innovation Systems Approach. Agroecology and Sustainable Food Systems 44, 88-132.

Tanguy. B., Collion M-H, De Janvry. A., Rondot. P, S. E. (2008). Do Village Organizations Make a Difference in African Rural Development? A Study for Senegal and Burkina Faso. World Development Vol. 36, No. 11, pp. 2188–2204, 2008.

The Montpellier Panel. (2013). Sustainable Intensification: A New Paradigm for African Agriculture. Imperial College, London.

Tittonell, P., Scopel, E., Andrieu, N., Posthumus, H., Mapfumo, P., Corbeels, M., ... & Mkomwa, S. (2012). Agroecology-based aggradation-conservation agriculture (ABACO): Targeting innovations to combat soil degradation and food insecurity in semi-arid Africa. Field Crops Research, 132, 168-174.

Wennink, B., & Heemskerk, W. (2006). Farmers' organizations and agricultural innovation. Bulletin 374. Royal Tropical Institute (KIT) Publishers, Amsterdam.

Wezel, A. (2017). (Ed.). Agroecological Practices for Sustainable Agriculture: Principles, Applications, and Making the Transition. World Scientific.

Wezel, A., S. Bellon, T. Dore, C. Francis, D., Vallod, C., D. (2009). Agroecology as a science , a movement and a practice . A review. Agronomy for Sustainainable Development, 29, 503–515.

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