



Access to cooperative education and agricultural information by rural smallholder farmers in Tanzania

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Abstract

Although the literature demonstrates that cooperatives play an important role in agriculture by providing a diverse range of opportunities, the impact on smallholder farmers remains unsatisfactory. Reviewing literature with a focus on cooperative education and agricultural information accessibility is critical for providing insights into how could contribute to global initiatives to overcome smallholder agricultural challenges. This review addresses the indicated concern in order to gain a better understanding and raise awareness. The review demonstrates that cooperative education and access to agricultural information are legitimate and effective solutions to rural development challenges. However, rural smallholder farmers prospects are limited due to a variety of factors including a lack of priority, unseemly allocation and use of cooperative education funds, erroneous choice of trainers, and limited assessment of training needs. In terms of information access, language and delivery platforms reduce opportunities for rural cooperative members and staff to advance in their farming initiatives. Addressing the challenges necessitates amicable and targeted long-term investments such as cooperative and training programs at all levels of education, information-accessible platforms with significant government support for smallholder farmers' rural livelihood.

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Introduction

In Sub-Saharan Africa, smallholder farmers make up more than 60% of the population, and agriculture contributes about 23 percent of sub-Saharan Africa's GDP (McKinsey & Company, 2019). It is asserted that smallholder farmers produce 70% or even 80% of the world's food through farms measuring less than two hectares (Fan & Rue, 2020). Smallholdings account for nearly all (84%) of the world's 570 million farms, or, and many of them have the lowest incomes (Ritchie, 2021). In Tanzania, small-family farmers dominate the agricultural sector, accounting for approximately 75% of the total agricultural output (FAO, 2018). Their contribution is about 65 percent of the total rural income (URT, 2021). Similarly, the agriculture industry is the primary supplier of direct and indirect job opportunities (Samkelisiwe & Mpan, 2020). In the year 2020, the agricultural sector in Tanzania contributed 58.1% to the jobs, and in the same year, its contribution to the gross domestic product (GDP) was 26.9 percent (URT, 2021).

Despite the efforts to enhance rural settings in many African countries, smallholder farmers have remained unprogressive (Fan & Rue, 2020). In an endeavor to reform rural areas, cooperatives have been utilized as a change agent philosophy to save smallholder farmers' livelihoods and the agricultural industry (Franken *et al.*, 2022). They were established many years ago as a vehicle for addressing the value chain challenges of farm production and consumers (Goel, 2013). Cooperatives are generally people-centered and provide a platform for cooperation, shared learning, and collective action. The cooperative philosophy has been widely utilized by smallholder farmers as a joint effort tool in cash crops and less on food crops (Ishak *et al.*, 2020). Having access to information and education on cooperative philosophy and management is critical, particularly in rural places where interactions are restricted. It is consequently critical to improve agricultural information and cooperative education accessibility in order to bridge the development gaps in rural areas (Franken *et al.*, 2022); (Ishak *et al.*, 2020). Cooperatives, on the other hand, are guided by

education as a right and principle to each member of a cooperative society, with the goal of assisting members in obtaining the knowledge and skills required to actively participate in cooperative operations, promote sustainability and creativity, and fulfill their social economic duties. Both agricultural information and cooperative education are thus recognized as legitimate and effective solutions for solving smallholder farmers' rural development and sustainability challenges.

Agriculture cooperatives, according to the (World Cooperative Monitor, 2021) are also acknowledged as an effective platform for increasing smallholder farmers' economic growth that require understanding to fuel rural areas' achievements. Likely, the Tanzania's Cooperative Development Policy of 2002 emphasizes the importance of education and training in promoting cooperative principles and values, as well as improving cooperative members' and leaders' technical and administrative abilities. The Policy calls for a wide range of education and training programs to be made available to cooperative members, leaders, and employees. It also fosters the integration of cooperative education into the formal education system at all levels, as well as addressing member needs such as financial literacy, marketing, and cooperative governance skills (URT, 2003). In addition, the Chama cha Mapinduzi (CCM) Manifesto (CCM, 2020) recognize cooperatives as a means of attaining economic development and have the ability to improve Tanzanians' living standards.

The manifesto promises cooperatives access to capital, markets, and technology, as well as training and education to members to assist them to manage and grow their businesses more efficiently. Furthermore, the manifesto emphasizes social and economic inclusion through cooperative education particularly women, youth, and persons with disabilities. CCM pledged to prioritize the formation of rural cooperatives in order to enhance agricultural development and improve food security (Kitalyi *et al.*, 2021). With all of these predictions, it is unclear how far the cooperative education has been accessed in

Tanzania, particularly among smallholder farmers; who mostly differ by geography and crop type making them heterogeneous.

Studies have shown underperformance in cooperative societies, raising a question of whether the cooperative societies' members, leaders, and staff actually understand or have access to relevant both cooperative education and agricultural information (Koshuma *et al.*, 2022); (Ishak *et al.*, 2020); (Atty *et al.*, 2018); (Anania & Rwekaza, 2017); (Mahazril'Aini *et al.*, 2012); (Abdulahi & Pethronila, 2011). It has been claimed that unreliable training and some information sources mislead smallholder farmers (Dessart *et al.*, 2019); this may increasingly have a negative effect on smallholder farmers' production quality and quantity. It is argued that most agricultural information is difficult to be accessed because of delivery methods or reaches farmers only occasionally or not at all (Livondo, 2018).

Furthermore, studies reporting agricultural information such as weather, best farming practices, pest management techniques, and market data are scarce (Wondimu & Girma, 2022). Additionally, cooperative education and agricultural information has been claimed to be widely broadcasted on strategic crops (Mtega, 2021); (Matto, 2018), which has not yet been clearly concluded. As a result, this review focuses on the literature on the agriculture cooperative concept in relation to smallholder farmers' rural development, with a focus on (i) smallholder farmers' access to cooperative education, (ii) cooperators' access to agricultural information and (iii) the way forward to improve access to cooperative education and agricultural information dissemination in rural areas in Tanzania. This is useful for bridging the identified gaps.

Material and methods

A comprehensive search of published journal articles, conference proceedings, books, reports, presentations, posters, and case studies on cooperative education and agricultural information among Tanzanian smallholder farmers was conducted. Using a combination of

keywords derived from the title of this article, the publications were searched in available academic databases as well as university repositories to get global insights and lessons on the study focus. To cite sources, Mendeley software was used. Following the retrieval of the information, a detailed analysis was performed in order to capture the article review questions. The review used content analysis, in which texts were analyzed to inform the specific objectives highlighted in the last paragraph of section 1.0.

Result and discussion

Smallholder farmers' Access to Cooperative Education and Lessons Learnt

Co-operatives have become key knowledge dissemination agents among rural business entities worldwide (Borda-Rodriguez *et al.*, 2016). In this context, cooperative societies have made deliberate efforts, such as providing education to members with the intent of sustaining activities in their societies, transferring knowledge and developing skills, shaping behavior, and nurturing them with acceptable ethical conduct (Anania & Rwekaza, 2018). Since 1844, when education was agreed to be one of the cooperative principles (Goel, 2013), the provision of cooperative education has been a key determinant of cooperative society performance, particularly the AMCOS. Since then, the ambition has been to empower members to effectively participate in the management of their cooperative societies through cooperative education. It has been equally easy to attract and retain members through cooperative education. In Tanzania, where smallholder farmers dominate agriculture, AMCOS have been fundamental in supporting farmers in farm production and marketing operations. They have also served as a link to the rest of the world through commodity export trading.

The history of AMCOS in Tanzania can be traced back to 1925. Cooperatives currently serve the majority of the population in African countries that rely on agriculture for sustenance, revenue and livelihoods (Ngowi, 2021). Tanzania is one among these nations. The development of inclusive training approaches capable of absorbing 70% of existing cooperatives and

their members to participate in cooperative training and education is a priority in the Africa Co-operative Development Strategy 2023-2033 (ICA-Africa, 2022). This implies that cooperatives in Africa have a responsibility to prioritize cooperative education in their strategic and annual business plans.

Despite being organized in cooperatives and key crop producers in rural areas, smallholder farmers still face challenges in their agricultural value chain (Fan & Rue, 2020); (Mahazril'Aini et al., 2012). Environmental and policy factors; access to information, knowledge, capital, inputs, and marketing of products have all been persistent burdens (Wondimu & Girma, 2022); (Fidelugwuowo, 2021); (Msuya et al., 2017). A deeper understanding of how to tackle these challenges in a sustained way to assure the improvement of cooperative members' livelihoods for member satisfaction and rural development is important (Forgiarini et al., 2022); (Oyewole & Sennuga, 2020). Using cooperative education to address agricultural related challenges faced by smallholder farmers is a growing interest among researchers (Bekele & Pillai, 2011). A combination of cooperative education and agricultural information easily accessible to farmers in mutual society collaboration has a positive impact (Hudson et al., 2017); (Bekele & Pillai, 2011).

It is argued that knowledge transfer and management are equally effective when done in an organized group (Thomas et al., 2020); (Ishak et al., 2020). Cooperatives have a competitive advantage in providing education to their members because they are established by people with a common interest who have voluntarily agreed to work collectively and contribute equally in the form of capital and other modes of involvement (Ishak et al., 2020); (Kumar et al., 2015). In order to enhance the performance of smallholder farmers in rural areas, it is critical to encourage them to form cooperative societies. This will allow for the smooth transfer of knowledge and skills in their business ventures (Thomas et al., 2020); (Bekele & Pillai, 2011). Access to cooperative education that supports its members, staff, and

leaders in Tanzania is critical because it facilitates them to make informed decisions about farming practices, market trends, and government policies that affect their livelihoods. In this context, cooperative education becomes an educational model that combines classroom learning with hands-on work experience.

Notwithstanding the fact that smallholder farmers have access to cooperative education in developing countries through their respective cooperative societies, some still face challenges due to limited training resources, incorrect need assessment, use of unqualified trainers, and lack of a training plan (Ndimbwa et al., 2021); (Msuya et al., 2017). This comes at a time when, in many countries, setting aside a portion of the net surplus for education and training has become a statutory requirement in cooperative societies, and the set fund is not always used as prudently as it could be. Nonetheless, regardless of the circumstances, the education and training program should be taken seriously by all actors in the cooperative movement. If we are to take practical steps toward the provision of cooperative education and training, actors in the cooperative movement should continuously understand what kind of training is needed, to who, for what; who is the proper trainer and how will the training be carried out. (Bekele & Pillai, 2011).

Furthermore, it has been noted that access to even free online cooperative education is limited due to a lack of information communication technology (ICT) knowledge and devices (Kaskekacharo, 2016). According to (Matto, 2018), less than 50% of farmers in Tanzania have access to a mobile phone, limiting their ability to access online training materials. This means that most of the Tanzanian smallholder farmers do not have access to computers, smartphones, or the internet, making online learning resources difficult to access (Matto, 2018); (Siyao, 2012). A further major hurdle is the availability of information in English, which makes it difficult for farmers to make use of these materials. In some instances, some areas may lack libraries, training

centers, or other facilities that provide access to cooperative education materials. Similar observations reported by (Mdoe & Luvanda, 2013) and in the study authors suggest that cooperative education should be integrated into the national education system and that more resources should be allocated to support cooperative training and development.

According to reports from most East African countries, some smallholder farmers appear to be oblivious of the professionals, leading them to hire unqualified trainers or attend ineffective training sessions (Thomas et al., 2020). Similarly, some cooperatives lack adequate resources to conduct outreach campaigns to raise cooperative education awareness, particularly in rural areas. Cooperatives in Tanzania, on the other hand, have the opportunity to make use of the Moshi Co-operative University (MoCU), which is mandated to provide cooperative education and has a network of 13 regional offices that provide outreach services throughout the country (Kumburu & Pande, 2020). MoCU offers certificate to doctoral degree programs in cooperative management, accounting, taxation, law, and marketing to mention a few. These are conventional programs, but through its Institute of Continuing Co-operative Education (ICCE), the University also provides advisory services and tailored training programs to grassroot communities (Njau et al., 2019). Furthermore, the University collaborates with cooperatives, the Tanzania Cooperative Development Commission (TCDC), and Co-operative Audit and Supervision Corporation (COASCO) to provide cooperative education and promote cooperative development in Tanzania. Cooperatives are encouraged to take advantage of this network to gain access to cooperative education and advisory services.

Cooperatives that collaborate with cooperative education training institutions have a better chance of developing competitive production and improving marketing coordination in order to overcome critical constraints among smallholder farmers (ICA-Africa, 2022); (Goel, 2013). The study by (Kimaro & Nandonde, 2016) explored the impact of cooperative

education on rural livelihoods in Tanzania. The authors found that cooperative education has a positive impact on farmers' productivity, income, and access to markets. However, they also found that cooperative education is not widely available in rural areas, and that farmers face challenges in accessing training and support services. Similarly, (Anania & Rwekaza, 2017) found that leaders in Mweka Sungu and Uru North Njari AMCOS had limited co-operative education and, surprisingly, failed to state their duties and responsibilities as members and leaders. They were also woefully ignorant of the cooperative policy and legal framework. This had a negative impact on their leadership efficiency and cooperative business management, including to manage their training annual budget. Other cooperatives, such as Mruwia AMCOS, on the other hand, had a training plan with well-thought-out training needs, facilitators, and a set fund to cover coop education and training for leaders, members, and staff.

It is through collective actions between cooperatives and other actors in the industry to strengthen the identification of cooperative education and training needs, training approaches, and impact follow-up (Msuya et al., 2017). In the same vein, it is expected that best practices are drawn from smallholder farmers and their cooperative societies to be actively shared across cooperators (Mutonyi et al., 2020). Globally, cooperatives are trusted as important sources of indigenous knowledge and they have the capacity to influence community members (Ndimbwa et al., 2021). Nevertheless the value of cooperative education, smallholder farmers especially in developing countries have remained largely uninformed or with little received knowledge, as well as with undocumented best practices from agricultural marketing cooperatives in developing countries (World Cooperative Monitor, 2021) (Siyao, 2012). To address the challenges faced by smallholder farmers, contextual efforts have been made to ensure correct understanding and timely delivery of cooperative management knowledge and skills (Ishak et al., 2020). By doing so, some cooperatives have been able to cope with rapidly evolving business models, science, and technology including Tanzania.

As a means of addressing rural smallholder farmers' challenges, (Mwombeki, 2017) argues that cooperative education serves a crucial part in providing youth learners with the abilities and expertise needed to start and run profitable enterprises in his study on the role of cooperative education in promoting entrepreneurship among Tanzanian youth. The study did, however, highlight the necessity for more specific reliable training programs that address the unique needs and challenges faced by younger entrepreneurs. On a similar note, (Agwu & Nwezeaku, 2017) who conducted research on the use of extension agents as a means of disseminating cooperative education to farmers in Nigeria; the authors noticed that cooperative societies were effective extension agents in disseminating cooperative education to farmers and that the use of information and communication technologies proved to strengthen the dissemination process.

Cooperators' Access to Agricultural Information and Lessons Learnt

Access to information is crucial for the development of any industry. It should consider a variety of factors, including time, sources, and dissemination platforms (Akpo *et al.*, 2021). Agricultural information is a powerful tool for improving performance and yields throughout the agricultural value chain (Thomas *et al.*, 2020); (Siyao, 2012). Using agricultural cooperative platforms, information can be transferred to smallholder farmers in a timely and effective manner (Akpo *et al.*, 2021). Agricultural cooperatives can make better use of collaborative technology software platforms for information sharing (Fidelugwuowo, 2021), and communication on day-to-day activities (Siyao, 2012). According to review, smallholder farmers in cooperatives have a better chance of accessing agricultural information (Mtega, 2021); (Forgiarini *et al.*, 2022). Cooperative societies can arrange for extension officers to visit their farms and provide information on best practices, new technologies, and other relevant topics (Kigatiira *et al.*, 2018). Similarly, farmers can use SMS or mobile apps to access information such as weather forecasts, market prices, pest and disease alerts, and other pertinent information (Wondimu & Girma, 2022).

Smallholder farmers in cooperatives, on the other hand, can form peer-to-peer learning groups to exchange information, discuss best practices, and share their experiences. Some studies also suggest that cooperative leaders can collaborate with local radio and television stations to ensure that their members have access to agricultural programs (Thomas *et al.*, 2020); (Bekele & Pillai, 2011). Cooperatives can also provide farmer field schools for hands-on training programs in topics such as soil management, crop production, pest and disease control, as well as marketing opportunities (Akpo *et al.*, 2021); (World Cooperative Monitor, 2021); (Anania & Rwekaza, 2017).

In rural areas, it was expected that distribution of leaflets and visits by extension officers would be an effective way to support access to agricultural information for smallholder farmers (Kigatiira *et al.*, 2018), but studies show that the number of extension is limited to facilitate the desire (Kassa & Degnet, 2004). This scenario may continue making difficult to farmers in obtaining information that can help them address agricultural challenges in their communities. Different players who assist smallholder farmers must collaborate in agricultural information dissemination (Akpo *et al.*, 2021); (Hudson *et al.*, 2017).

For instance, in Tanzania, the ministry of agriculture has made numerous efforts to ensure that smallholder farmers in cooperatives have access to agricultural information, despite their heterogeneity. Likewise, the Tanzania Agricultural Research Institute (TARI), develops and disseminates agricultural technologies and information to improve agricultural productivity, food security, and farmer livelihoods in Tanzania. TARI uses a variety of platforms to disseminate agricultural information, including farmer field days, national and local radio and television stations, a mobile phone-based platform, and agri-business forums (Lukurugu *et al.*, 2021). TARI is working with national and local radio and television stations to air agricultural programs about crop production, livestock management, soil fertility improvement, and post-harvest handling (Hatibu *et al.*, 2022).

TARI creates and disseminates agricultural publications in English and Swahili, such as bulletins, newsletters, and extension instruction manuals that provide farmers with current information on best practices, emerging technologies, and trends in the market. TARI additionally established Mkulima Mdogo, a mobile phone-based platform that sends farmers agricultural information via SMS messages. Farmers may opt-in to receive periodic notifications on weather predictions, market prices, crop production, and livestock management best practices. TARI likely holds agri-business discussions that bring in farmers, traders, processors, and other key players to learn about market trends, price fluctuations, and demand for their produce, as well as to network with potential buyers and suppliers (Ortiz-Crespo *et al.*, 2021). Cooperatives have a responsibility to capitalize on these opportunities.

Although information demands vary by individual or group of people, some agricultural information needs have been discovered to be prevalent among Tanzanian farming communities (Siyao, 2012). Pest and disease management, as well as the method of farming, seed types, and market information, are the most sought-after types of information by the majority of farmers, regardless of farming type (Ndibalema, 2019). Other agricultural demands were disclosed by various scholars, such as knowledge of weather patterns, use of farming inputs, soil preservation, and irrigation, access to agricultural credits, and value addition. Small-scale farmers also require agricultural training, farming contracts, out-growers schemes, subsidies, warehouse facilities, weed control, and by-laws (Liao *et al.*, 2022); (Mati, 2008); (Vorley *et al.*, 2009). Multiple research efforts from other countries have indicated similar agricultural information needs. The study conducted by (Lwoga *et al.*, 2011) (Hatibu *et al.*, 2022), approximately 80% of farmers required information on farm inputs, markets, good seed varieties, high-yield crops, disease and pest control, and fertilizer application options. In some regions, studies of this kind have actually been reported. Proper control of pests along with effective agricultural practices

deploying better varieties of seeds can result in a substantial number of high-quality products, and with adequate market information, farmers' income may increase dramatically (Akpo *et al.*, 2021); (Anania & Rwekaza, 2017).

Friends, neighbors, family and public extension officers are the most common sources of agricultural information for farmers (Lwoga *et al.*, 2011). (Elly & Epafra, 2013) contend that social events are also most significant means of interaction in rural areas followed by farmer groups. Other commonly used information sources include printed materials such as handouts, books, posters, newspapers as well as electronic media such as radio, television, and mobile phones. Surprisingly, it appears that this type of information source is prevalent not only in Tanzania, but also in other developing countries, as (Yaseen *et al.*, 2016) demonstrate.

Regardless of the existence of numerous information sources, there are several factors that restrict access to rural agricultural information, which requires further research (Kigatiira *et al.*, 2018). One of the most significant barriers is a low literacy level accompanied by being unable to read and write (Siyao, 2012). On the other hand, in rural areas, smallholder farmers' ability to access agricultural information via online sources and other digital outlets is limited due to a lack of infrastructure such as electric power, internet access, and stable public transit (Matto, 2018); (Hudson *et al.*, 2017).

In Kenya, factors such as limited access to extension services, insufficient facilities, inadequate literacy rates, and language constraints have been identified as barriers to access to agricultural information (Bebe *et al.*, 2014). Similarly, social and cultural customs that restrict rural women's access to education and extension services contribute to gender disparities in agricultural information access in developing countries (Amankwah *et al.*, 2018). Women are barred from attending village meetings and seminars aimed at disseminating agricultural related knowledge.

Furthermore, the limited number of extension officers has a consequence on farmers; in some cases, farmers can spend years without getting in touch with extension staff (Kassa & Degnet, 2004). Information centers and libraries are likely to be scarce, with most of them located in their regional offices far from farmers' homes (Siyao, 2012). Farmers therefore have no access to various research findings. Rethinking improving access to agricultural information for smallholder farmers is timely and critical; it is therefore appropriate to address weaknesses and seek suitable means of communication that are likely to bring smallholder farmers on board (Thomas *et al.*, 2020); (Riley, 2008). Following the barriers, smallholder farmers in some regions, including the Rukwa region, reported using more informal sources for agricultural information (Ntulo, 2019) than formal sources. According to the study, religious and local leaders are respected, and the information they provide tends to be directive. In a comparable manner by (Fidelugwuowo, 2021); (Mwalongo *et al.*, 2020), and (Adetimehin *et al.*, 2018) demonstrated that informal sources of information were perceived as dependable and trustworthy by farmers in Tanzania engaged in farming operations. Farmers who use multiple sources of agricultural information, on the other hand, are more likely to adopt improved farming practices than those who have recourse to just one source of information (Bello & Yahia, 2017); (Livondo, 2018). The use of farmer groups or cooperatives through mass media has influenced the adoption of Irish potato farming in Rwanda, maize production in Ghana, and Coffee and Tea in Tanzania (Kigatiira *et al.*, 2018); (Ndibalema, 2019).

Agricultural cooperatives can be powerful in delivering agricultural information to their members. They can play a critical role in enhancing the smallholder productivity of farmers and livelihoods by making use of their networks, resources, and expertise (Forgiarini *et al.*, 2022); (Ishak *et al.*, 2020). This is a global thinking and practice, for instance in the United States there is a nationwide program called the Cooperative

Agricultural Extension Service (CAES) which is jointly offered by United States Department of Agriculture (USDA), state land-grant universities, and local governments to help farmers where provide training, education, and technical assistance on various aspects of agriculture, including production, marketing, and farm management. Similarly, according to (Sisay *et al.*, 2017) and (Leta *et al.*, 2017) the Ethiopian Agricultural Transformation Agency (ATA) collaborates with agricultural cooperatives to offer extension assistance to Ethiopian smallholder farmers. The ATA educates cooperative members on a variety of agricultural topics, such as farming, animal husbandry, and post-harvest management. Members of the cooperative then share the information with other farmers through sessions of training and social gatherings. The ATA also uses mobile phone-based services to disseminate agricultural messages to farmers who do not have a link to extension services.

The Asociación de Cooperativas Argentinas (ACA) in Argentina supplies its members with immediate updates on trends in the market, the weather, and farming best practices (Gras & Beccar Varela, 2015); (Belmartino & Panizza., 2019). The cooperative also provides its members with educational seminars and training courses on multiple aspects of agriculture, such as crop diversification and sustainable farming practices. Furthermore, the Indian Farmers Fertiliser Cooperative Limited (IFFCO) provides information to its members on crop production, pest management, and soil fertility (Das *et al.*, 2016). IFFCO disseminates information to its members through a variety of communication channels, including radio, television, and mobile phones.

It also provides training in sustainable farming practices and the use of contemporary technologies to increase produces (Verma *et al.*, 2013).

Conclusion and recommendations

The review concludes that cooperatives have a competitive advantage in providing education to their members because they are able to contribute equally in the form of capital and other modes of

involvement. In this lens, the country's legal and political framework should support cooperative education and access to agricultural information for small-scale farmers, particularly in rural areas. It is recommended that integration of cooperative education into the formal education system at all levels is critical especially by the Government of Tanzania. Cooperative societies should seriously address financial literacy (internal control, expenditure), marketing, cooperative education and access to reliable agricultural information from credible institutions and experts.

This review additionally observed that a blend of cooperative education and agricultural information made easily accessible to farmers through mutual society collaboration has an enticing effect. Cooperative actors in the cooperative movement have to constantly recognize what type of training ought to be given to whom, and for what; who is the appropriate trainer, and how the training will be carried out. In addition, cooperatives, the government, and appropriate regulators should all closely track and evaluate this. Cooperatives should also devote more funds to cooperative education and development. Firm decisions must be made by coop bodies and government organs for leaders, personnel, and cooperative members who may divert funds designated for cooperative education and training.

The review also acknowledges that cooperatives in Tanzania and the rest of East Africa could utilize MoCU, which is designated to offer cooperative education and has a network of 13 regional offices in Tanzania that provide outreach services and distance learning programmes to the grassroots. Furthermore, developing countries are urged to embrace cooperative entities as effective extension agents in delivering cooperative education to farmers and information users.

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