

Rural Initiatives for Participatory Agricultural Transformation (RIPAT) and Rural Development

Edited By

Justin Kalisti Urassa, Amon Zacharia Mattee,
Emmanuel Timothy Malisa, Dominick Elimringi Ringo
and Josephine N. Ng'ang'a



MKUKI NA NYOTA
DAR - ES - SALAAM

PUBLISHED BY
Mkuki na Nyota Publishers Ltd
P. O. Box 4246
Dar es Salaam, Tanzania
www.mkukinyota.com

© Sokoine University of Agriculture and RECODA, 2023

ISBN 978 9987 449 92 7

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Mkuki na Nyota Publishers Ltd. Visit www.mkukinyota.com to read more about and to purchase any of Mkuki na Nyota books. You will also find featured authors interviews and news about other publisher/author events.

Sign up for our e-newsletters for updates on new releases and other announcements.
Distributed worldwide outside Africa by African Books Collective.
www.africanbookscollective.com

Contents

List of Abbreviations.....	v
Preface.....	xi
Acknowledgements.....	xiii
About the Authors.....	xv
CHAPTER 1.....	1
Rural Initiatives for Participatory Agricultural Transformation (RIPAT) Approach: Genesis, Development and Performance Dominick E. Ringo, Josephine Ng'ang'a & Theophili Tarmo	
CHAPTER 2.....	19
Evolution of Extension Approaches in Tanzania: Drivers, Contextual Strengths and Weaknesses, and Implication for Extension Services Delivery Athman Kyaruzi Ahmad, Gosbert Lukenku Shausi, Innocent M. Busindeli and Zahara H. Mkuki	
CHAPTER 3.....	47
Public-Private Partnerships in Agricultural Extension Services Delivery in Tanzania: Prospects, Challenges, and the Way Forward Mikidadi I. Muhanga	
CHAPTER 4.....	69
Need for New or Improved Approaches for Extension Service Delivery in Tanzania Catherine Phillip Msuya	
CHAPTER 5.....	87
A Comparative Analysis of RIPAT and Other Selected Participatory Rural Development Approaches Used in Tanzania Rasel Madaha, Respikius Martin and Joyce Mwakatoga	

CHAPTER 6.....	111
The Contribution of the RIPAT Approach in the Adoption of Agricultural Technologies in the Uluguru Mountains Suzana S. Nyanda, Respikius Martin and Dismas L. Mwaseba	
CHAPTER 7.....	139
Associating the RIPAT Approach with Ecological Agriculture, Food Security and Poverty Reduction: A Case of RIPAT-SUA Project, Morogoro, Tanzania Dominick E. Ringo, Emmanuel T. Malisa, Kim A. Kayunze and Raymond J. Salanga	
CHAPTER 8.....	169
Pursuing Synergy in Disseminating Agricultural Technologies: Integration of Improved Seed Technology in a Basket of Technologies Saadan A. Edson, Adam M. Akyoo and Richard R. Madege	
CHAPTER 9.....	193
Roles of Lead Farmers in Facilitating Uptake of Agricultural Technologies in Collaboration with Extension Officers: A Case of RIPAT Approach in Tanzania Dominick E. Ringo, Amon Z. Mattee and Justin K. Urassa	
CHAPTER 10.....	221
RIPAT Approach and Gendered Technology Dissemination: Insights from Small-Scale Farmers' Groups in Tanzania Tumaini Allan and Fatihya Ally Massawe	
CHAPTER 11.....	239
Institutions and Farmer's Decision to Participate in Agricultural Projects: Influence of the RIPAT Approach Emmanuel Timothy Malisa	
CHAPTER 12.....	263
Experiences from the Application of RIPAT Approach in Selected Agro-Ecological Zones of Tanzania Christopher Paul Mahonge	
CHAPTER 13.....	297
Concluding Remarks Amon Z. Mattee and Kenneth F. Masuki	

CHAPTER 5

A Comparative Analysis of RIPAT and Other Selected Participatory Rural Development Approaches Used in Tanzania

Rasel Madaha, Respikius Martin and Joyce Mwakatoga

Abstract

Influenced by the African socialism philosophy of the late Julius Nyerere and the participant research practices of Marja Liisa Swantz, Tanzania is one of the pioneers of participatory action research in the world. Within the mentioned milieu, participatory approaches have become widespread. The approaches are geared at enabling rural communities to address their challenges through participatory approaches. This book chapter focuses on a comparative analysis of locally improved rural development approaches that have been developed and improved in the Tanzanian context. Using primary and secondary data from some Tanzanian rural interventions by Uluguru Mountains Agricultural Development Project (process approach) and World Vision Tanzania (ADP approach), the chapter focuses on a comparative analysis of the mentioned strategies and RIPAT (Rural Initiatives for Participatory Agricultural Transformation) to shed some light on rural development

efforts in the Tanzanian context. The process approach involves participatory endogenous processes of development that start with the recognition of the local capacities of the people. The ADP (Area Development Programmes) approach is a participatory approach that seeks to induce communities with capabilities to undertake appropriate actions to accomplish economic and social progress. More recently, World Vision Tanzania (WVT) reframed the acronym ADP by calling it Tanzania Empowerment ADP Model (TEAM). RIPAT is a participatory extension approach that transfers a 'basket' of agricultural technology options, including various crops and livestock, to groups of 25 to 30 smallholder farmers in a way that allows for joint, experiential, and participatory learning. In 2017 Research, Community and Organisational Development Associates (RECODA) entered a two year contract with WVT of co-owning the approach; the agreement ended in 2019. The engagement allowed World Vision Tanzania to use the RIPAT approach in ADPs. All in all, some literature suggests that participatory approaches fail to empower people in real life situation. In this regard and drawing from the participatory theory and practice, the chapter assesses the sustainability of the approaches.

Keywords: PAR, Development, Rural, Sustainability, Tanzania, Africa

Background

Tanzania is not new in the experimentation of rural development approaches. Colonialists facilitated the creation of rural cooperatives in the 1920s. Following independence, the government engaged in many rural development approaches under the umbrella of *Ujamaa* or African socialism. A common denominator of the early initiatives is the participation of the target population in matters affecting them. Although participatory approaches are increasingly applied to foster rural development (Chambers, 1993; 1994; 1997), the major conventional theories of rural development have been modernization and dependency theories. Modernization theory states that rural communities can only develop if they are assimilated into the western economic and social systems. Dependency theory suggests that rural areas can only develop if they disentangle themselves from the western economic and social systems. The more recent theory of rural development is the globalization theory. The theory suggests that rural communities need to enhance their assets and build on competitive strategies because they cannot break from the global economy (Singh, 2009; Green, 2013). The context caused by conventional theories suggests

that rural communities need to take charge of their development. That is, the context calls for increased participation of rural communities in their development.

Tanzania is one of the pioneers of participatory action research. Some of the earliest action researchers were influenced by the African socialism philosophy of the late Julius Nyerere, and the participant research practices of Marja Liisa Swantz in the 1970s. Research by Marja Liisa Swantz, which took place in the early 1970s in Tanzania, created a significant contribution to participatory action research in the world. Within the mentioned milieu, participatory approaches have become widespread in Tanzania and elsewhere. The approaches are geared at enabling rural communities to address their challenges through participatory approaches. Using secondary data and some primary data from some Tanzanian rural interventions by the Uluguru Mountains Agricultural Development Project (process approach), World Vision Tanzania (ADP approach), and RIPAT, the chapter focuses on a comparative analysis of the mentioned approaches to shed some light on rural development efforts within a Tanzanian context.

Conventional rural development approaches

Hodge and Midmore (2008) highlight the four dominant approaches to rural development. The approaches are sectoral approach, multisectoral approach, territorial approach, and local approach. The sectoral approach is driven by a need to ensure domestic food security and the central role of agriculture in rural economies. The approach places support for the agricultural sector at the centre. In this approach, a single agricultural policy is geared at meeting a variety of objectives namely food security, rural development, farm incomes and environmental protection simultaneously. The approach is framed within a thesis that the agriculture sector is the major sector whose success determines the performance of the local rural economy. An analysis of the approach suggests its relevance to agriculture-dependent countries as opposed to industrial-based countries. The economy of industrial countries relies on industrialisation. The approach was the norm in the period following the Second World War.

Unlike the sectoral approach with an emphasis on a single agricultural policy, the multi-sectoral approach proposes the diversification of the farm business through drawing on multiple income sources to boost rural development. Some of the proposed multiple income sources included adding value to agricultural products, making use of farm

assets such as land and buildings for non-agricultural uses, undertaking agricultural work on other farms and becoming involved in off-farm economic activities (Shucksmith *et al*, 1989; Hodge & Midmore, 2008). The diminishing role of the agriculture sector in the rural economy follows an increasing role of other detractor sectors such as service and industry sector in the rural economy (Newby, 1988).

The third conventional rural development approach is the territorial approach that looks more generally and equally at the actual and potential roles of all sectors that do not necessarily have economic linkages with agriculture. Some rural areas have the potential to attract investments in the most advanced sectors of a modern economy, such as in information technology that can establish new types of employment away from agriculture (North, 1998; Hodge & Midmore, 2008).

Finally, the local rural approach adopts a “local” or even an “individual” approach through the decentralisation of decision-making to direct resources towards particular problems at the local level (Hodge & Midmore, 2008). Here, there is an emphasis on developing some mechanisms for connecting the development policy at the national level to the problems and priorities at the local level. The national objectives and resources need to somewhat address the local challenges. In this regard, social capital and networks are brought at the forefront in the delivery of rural development (Lee *et al.*, 2005). This suggests that one cannot create a universal approach to address the rural challenges. Therefore, there is a need to adapt the approach to suit the local context. The local rural approach is not an easy undertaking by the government alone, hence, need for other actors to participate. The contribution of local institutions such as RECODA, World Vision and the Uluguru Mountains Agricultural Development Project (UMADEP) in the development of local rural development approaches cannot be underestimated. The goal of this chapter is to make a comparative analysis of the rural development approaches developed by these organizations on key selected criteria.

Theoretical framework

The participatory approaches, as shared by Kilroy (2015), have been promoted by agencies committed to a partnership approach to development work through nationally based nongovernmental organisations (NGOs). In this regard, World Vision, UMADEP and RECODA are some of the pioneers of participatory approaches in the Tanzanian context. Globally, the pioneer of the discourse of

participatory approach as a pillar to designing and implementing rural development programmes is Robert Chambers. The participatory approach to development is geared at empowering beneficiaries; fostering ownership and control by the communities; accommodating innovations; guaranteeing inclusiveness of all; ensuring sustainability through the involvement of key stakeholders such as government and development agencies; and finally, safeguarding effectiveness and efficiency in the attainment of intended goals (Cf. Chambers, 1994, 1997, 1998). Kilroy (2015) points out that the participatory approach requires, among other things, that the intended beneficiaries of a development programme are genuinely involved in, consulted on, and make input to the main stages of its planning, implementation, monitoring and evaluation. Other proponents of participatory approaches highlight the contribution of such approaches in terms of ensuring greater efficiency and effectiveness of investment and contributing to processes of democratization and empowerment (Freire, 1999; Kilroy, 2015). The participatory approaches ensure the sustainability of development interventions through the proper involvement of beneficiaries in the supply and management of resources, services, and facilities. The opponents argue that participatory approaches fail to empower people in real life situation (Cleaver, 1999).

In this regard and drawing from the participatory theory and practice, the chapter compares the process approach, the ADP approach, and RIPAT using Chambers participatory framework (Chambers, 1994; 1997; 1998; Kilroy, 2015) and participatory principles developed by the Royal Tropical Institute (Royal Tropical Institute, 2000). According to the Royal Tropical Institute (2000), although there is much diversity in participatory approaches as witnessed in Tanzania and elsewhere, there are general principles to observe. The principles were developed by researchers working for the Royal Tropical Institute and the World Bank (Royal Tropical Institute, 2000), which include eight (8) criteria; 1) the community should take responsibility for its development agenda, 2) the diversity of the community members ought to be respected, 3) all community members, including marginalized ones, need to participate in the project, 4) reconcile the interests of different groups within communities by ensuring that the decision-making process takes all into account, 5) listen to community members because each community member has knowledge and ideas which can contribute to finding solutions to community problems, 6) involve multidisciplinary teams with different training and backgrounds to allow the community

to benefit from different knowledge and perspectives, 7) examine the situation from different points of view to offer communities a variety of tools and methods to community challenges, 8) adapt, contextualize, or fit the participatory approaches to local situations.

Methodology

Primary and secondary data were collected. Secondary data were retrieved from project reports and manuals. Primary data was gathered through participant observations and key informant interviews. Concerning observations, the authors participated in different project activities of the organizations implementing the selected approaches. The project activities included project monitoring, implementation, evaluation, participation in workshop and seminars and attending various project presentations. Concerning key informant interviews, the authors talked to four key informants from each of the three organizations. The authors also received some useful feedback from the reviewers of the chapter who had affiliation with UMADEP and RECODA. The feedback was instrumental in improving the book chapter. Further, the first author was an employee from World Vision. Some of the World Vision employees and beneficiaries are in his network. This connection has also been instrumental. All the authors are members of the Department of Agricultural Extension and Community Development. The membership has been useful in accessing secondary documents and former UMADEP staff.

Findings and discussion

The findings and discussion section focuses on the data gathered to provide a synopsis of the selected Participatory Rural Development Approaches. The findings and discussion will provide a basis for the analysis of the three approaches in the section titled, "Comparative analysis of the approaches and sustainability." The focus is on the three participatory rural development approaches including the ADP approach, the RIPAT approach and the Process Approach. The process approach involves participatory endogenous processes of development that start with recognition of the local capacities of the people. The processes are observation, organization, innovation, collaboration, and communication. The ADP approach is a participatory approach that seeks to induce communities with capabilities to undertake appropriate actions to accomplish economic and social progress based on their understanding of the causes of the livelihood constraints which hamper

them to attain a preferred future, and their commitment and acquired capacities to organize themselves for change. The ADP approach calls for the involvement of all stakeholders in the planning, designing, implementing, and monitoring and evaluation process of a 15 year development programme. The ADP has been crafted by World Vision Tanzania (WVT). RIPAT is a participatory extension approach that transfers a 'basket' of agricultural technology options, including various crops and livestock, to groups of 25 to 30 smallholder farmers in a way that allows for joint, experiential, and participatory learning. The RIPAT approach has been crafted by RECODA in collaboration with Rockwool Foundation from Denmark. There were some inputs from the WVT rural development approaches. Since 2014, RECODA and WVT have jointly implemented RIPAT in a few villages in northern Tanzania. However, RECODA no longer works with WVT. Their MoU came to an end around 2019.

The ADP approach

Area Development Program (ADP) is a term used by World Vision referring to a distinct geographical area where the organization partners with local stakeholders to improve the well-being of children. At the ADP level, World Vision engages in multiple sector projects to address the root causes of issues that negatively impact children. These geographic areas can vary in size, context, and population. Each ADP has its staff and design, and while each ADP is unique, they all seek to support families and communities to address child well-being. The ADP is also a rural development approach that focuses on empowering communities to bring about their development. The ADP starts as an informal community collective to be transferred into a formally registered Community Based Organization (CBO) after 15 years (Kelsall, & Mercer, 2003). This book chapter draws lessons from Kinyangiri ADP located in the Mkalama district, Singida region. The project was launched in 1994. The Kinyangiri ADP lasted for fifteen years and was phased out in 2009. Rasel M. Madaha worked at Kinyangiri ADP, as ADP Manager, for a year.

ADPs are mainly funded by sponsorship funds and are a phased approach to development, involving clear and consistent assessment, design, and implementing, reporting, monitoring and evaluation and reflection phases. Each ADP is tailored to the needs of a specific community in alignment with WVT's strategic priorities. WVT works

closely with government officials at all levels as well as local partners to implement programme activities.

Each ADP usually has one ADP manager, one Finance staff, one Sponsorship staff and three (3) to three (5) other staff who oversee monitoring and evaluation, capacity building, and sectoral projects such as education, health, agriculture and livelihood. A unique feature of the ADP approach and structure is that all ADP team members are based at the community where the ADP is located, which enables them to work closely with government partners and communities daily.

When an ADP begins, World Vision staff work with the community to assess their needs. While identifying partners, the staff creates a collaborative plan based on the community's vision for its children. Together, the staff and community members look at what's already being done, what more can be done, and what they can do together. Often communities select key areas of focus that may cover critical topics such as health, education, economic empowerment, and child protection. Each project is selected with children in mind, and children often participate and even lead the community through important changes.

Throughout the involvement in an ADP, World Vision work with the community to manage, monitor, and evaluate progress toward the ADP's goals. After a few years, World Vision may transition out with the expectation that the community stakeholders are equipped and empowered to sustain the work. While World Vision works with communities for a time, there is an understanding that the stakeholders have been and will be there longer than World Vision. The average life cycle of ADP varies depending on the community's needs. World Vision tends to carry out three project cycles, each approximately five years long. Many of the ADP's transition after about 15 years. Some ADPs ask for additional time to meet critical goals or to ensure that the community can sustain the changes. World Vision is committed to staying if it can help bring change without creating dependencies.

A few factors include access to the geographical area; population density (high enough for sponsorship to work, small enough to be manageable); risk factors such as natural disasters and violent conflict; the availability of infrastructure; and the community's willingness to participate. Most of World Vision national offices carry out assessments to better understand where to invest, often influenced by where poverty is greatest, as well as looking for areas that are under-served by other organizations.

Approaches that had been adopted to ensure full participation by all stakeholders are Appreciative Inquiry (AI), Participatory Rural Appraisal (PRA), and Participatory Evaluation Process (PEP) (Chambers, 1997; 1998). Concerning AI, community members through a Programme Coordinating Committee (PCC), are encouraged to create Community Capacity Indicators (CCI) to be observed in the monitoring and evaluation of the performance of the programme. Participatory approaches are observed throughout the implementation period of 15 years. All stakeholders participate in the planning, designing, implementation, and monitoring and evaluation process. The development work in ADP is being done in collaboration with different stakeholders where each stakeholder has a role to play. The community owns the programme through the ADP committee. The committee makes all the divisions concerning the planning and implementation of activities in the ADP. The government supports the development work by providing technical assistance to the specific sectors.

A typical implementation schedule of an ADP in the Tanzanian context follows five stages (see Table 1). The stages are related to plant growth stages as shown below:

Table 5.1: *Stages of implementation of ADP approach*

Time/Year	Plant Stage	Implementation of the programme	Indicators
3 years	Planting stage	<ul style="list-style-type: none"> Information gathering, analysis interpretation and development survey report Preparation of community for sponsorship Formation of ADP committees. Recruitment of ADP staff Development of a Programme Design and Document (PDD) 	<ul style="list-style-type: none"> Survey report Recruited Child in Programme (CIP) Functional ADP committee Recruited staff PDD available
3 years	Germination	<ul style="list-style-type: none"> Facilitation of the community on the identified project mobilization, and empowerment 	<ul style="list-style-type: none"> Response of the community towards project implementation

Time/Year	Plant Stage	Implementation of the programme	Indicators
		<ul style="list-style-type: none"> • Provide financial support to child sponsorship • Networking with the government, other NGOs, and church • Coordination and resources development 	<ul style="list-style-type: none"> • Financial records • Number of meeting and reports
3 years	Growth	<ul style="list-style-type: none"> • Capacity building on monitoring and evaluation • Community documentation of all activities • Integrations of skills to maximize the use of simple refined technology, according to environment • Identification of spiritual gifts and spiritual nurturing • Improved church management skills and scripture search • Action; Reflections-Action 	<ul style="list-style-type: none"> • Number of trained personnel • Recorders reports • Increased relationship among church leaders • Increased number of church management and converted into Christian
3 years	Flowering/fruiting	<ul style="list-style-type: none"> • High levels of community accountability • Community independence • High level of community programme ownership • ADP registration as NGO • Identification of ministries • Pastoral counseling 	<ul style="list-style-type: none"> • Community evaluation • Other people come to learn • Registration number

Time/Year	Plant Stage	Implementation of the programme	Indicators
3 years	Propagation	<ul style="list-style-type: none"> • Programme evaluation • Consultation from other communities • Outreach mission • Church planting 	<ul style="list-style-type: none"> • Evaluation reports • Increased number of replicated programmes • Other communities come to learn • Number of outreaches • Increased number of churches and trained servant of God

Source: *Field Data (2021)*

With regards to programme sustainability, the ADP approach ensures sustainability through the appropriate investment of scarce resources in the spaced activities as they are prioritized by the community members during Programme midterm evaluation. Participatory approaches are used from the inception of the programme to empower communities to manage and sustain their development. Community members are facilitated and empowered to conserve their environment. Environmental assessment is one of the priorities throughout the implementation period. The programme incorporates its environmental conservation strategy with the district environmental conservation strategy.

Concerning social viability, the programme interventions are the results of participatory community baseline survey and midterm programme evaluations. During the exercise, the community identifies their felt needs, prioritizes them, and comes up with recommendations. The implementation of the projects in the programme puts into consideration the traditional practices and norms. Concerning institutional/organizational viability, all stages of the planning, implementation and decision-making of the programme involves all stakeholders i.e., Government, NGO's, community, and faith leaders (through interfaith committees). The project had involved District heads

of departments in related interventions to maintain the Government policies to the interventions. Community Capacity Indicators (CCI) and AI (Appreciative) issues are emphasized during workshops/seminars. Project coordinating committees are normally chaired by the District Commissioner and they involve heads of department at the district level, community leaders, other NGO representatives and WVT leaders and are organized every year to monitor the programme's progress.

Concerning financial sustainability, the community is facilitated to form savings and credit cooperative societies, maintain existing revolving funds, and promote the formation of income generating activities (IGA) groups to raise household (H/H) cash incomes hence, raising their capacities to contribute to development activities. The programme facilitates the formation and registration of the CBO whose leaders would be empowered on networking and proposal writing skills to be able to solicit funds from different donor agencies for the CBO activities. Concerning technical/Technological Viability, the technological approaches which are used in the programme are approaches that are appropriate and affordable by the community. The programme focuses on the empowerment of the community so that they can use the techniques properly in a sustainable manner. In addition, concerning the replicability of Programme Intervention/Impact, during flowering stage ADP is registered as a community based local organization (CBO) whereby its role is to facilitate community development using experience from the ADP and other development agents.

Concerning community capacity/resources, the ADP uses the existing Government structures in villages, wards, and Division in implementing the programme. Village Governments, Ward development committees and Divisional leaders in the programme area were required to mobilize the community to prepare the development plans in every village and mobilize their contributions in cash and kind. The community is required to contribute resources in every intervention to be implemented (the contribution is that which is within their capacities such as labour and in-kind contribution). The District Government provides technical support in the implementation of every intervention. The ADP committee which has two representatives from every village has the sole responsibility to represent the whole community to manage the programme. The ADP Committee combines the village plans/budget to have a programme plan (Log frame, AIP) for every year and the facilitation of the project coordinator who share the programme plan with zonal, the national and support office as well as other stakeholders and community development

agencies. Lastly, concerning local partnership, local partners are the Government of Tanzania and other development agencies present in the area. Village, ward, and district development councils are supposed to be fully involved. All local partners are brought together every year to allow them to review the programme plans and implementation strategies.

The process approach

UMADEP was initiated in 1993 to address some of the challenges emanating from the failure of government top-down extension approaches (Rutatora & Mattee, 2001). UMADEP aimed at mobilizing the rural society to play an active role for its betterment. It was a multidisciplinary community-based research and extension project that forged a partnership between the Sokoine University of Agriculture (through the Department of Agricultural Extension and Community Development formerly known as the Department of Agricultural Extension), government extension officers and farmers. The project was based in Mgeta Division, Mvomero District and Mkuyuni Divisions, Morogoro District. The two divisions are located along the slopes of the Uluguru Mountains. UMADEP led into the famous federation of farmers' network in Tanzania known as *Mtandao wa Vikundi vya Wakulima Tanzania* (MVIWATA).

UMADEP used the process approach to sustainable agriculture and natural resource management. The pillar of the process approach is participatory development that recognizes the contribution and capabilities of local communities. The process approach involves several participatory approaches known as Participatory Rural Appraisal (PRA), Participatory Technology Development (PTD), Farmers' Groups and Farmer to Farmer extension approach. The process approach involves the following processes: observation, communication, innovation, collaboration, and organization. Observation is implemented first to allow interaction between the farmers and external experts. The second process is the organization of farmers to pave way for them to become equal partners with practitioners, decision-makers, and service providers. The third process involves innovation. Technical or social innovations are geared at enabling the farmers to address new problems and constraints. The fourth process is collaboration. Collaboration between farmers, experts, and other stakeholders is crucial for the success of any participatory intervention. The fifth process is communication. Communication allows a smooth flow of information among all participants. Feedbacks are important in all participatory interventions.

Poor communication can lead to misinformation. Misinformation can lead to the failure of the whole project.

The implementation of the process approach involves the following steps: first, change agents conduct a situational analysis. A situation analysis serves as an entry point to a local community. UMADEP used PRA to conduct a situational analysis. PRA experts introduce a project to a village public meeting. Then, a PRA team is formed. The team should be composed of PRA experts and community members. It is recommended that community members make more than 60% of the PRA team. The UMADEP PRA team was composed of four experts from SUA, and seven villagers selected from a village meeting. Depending on the context, lessons from UMADEP suggest that a PRA team should use transect walks, community maps, feedback public meetings, problem tree analysis and role-plays. The PRA was instrumental in gathering information about the history, farming systems, natural resources, weather, traditions and customs, opportunities and problems existing in the area. The information gathered was in line with the objective of UMADEP.

The second step involves the organization of target communities into action groups and networks. The groups and networks are geared at collaborative planning and nurturing networking to sustain interventions. UMADEP facilitated the formation of MVIWATA at this stage (Mattee, 1998). Lessons from UMADEP suggests that the groups and networks were instrumental in enhancing farmers' participation in the project, facilitating information exchange between farmers and experts, and sustaining project interventions through the institutionalization of interventions.

The third step involves the implementation of project intervention based on outcomes of steps one and two. The external experts need to work hand in hand with the local communities to address the local challenges at this step. For example, UMADEP adopted contour strip cropping that was appropriate for the area. The intervention required low investment capital with immediate economic returns. As a result, pineapple yields increased from an average of Tshs 150, 000 per acre to Tsh 1.5 million per acre. The intervention also ensured sustainable agriculture and appropriate natural resource management (Mattee *et al.*, 2020). Other interventions involved the introduction of a revolving fund through a local Savings and Credit Co-operative Society (SACCOS) to increase the accessibility of farmers to financial services. The pillar strategy during the implementation is Participatory Action

Research (PAR). The PAR involves experts and local communities to explore challenges and come up with joint solutions. The PAR exercise was instrumental in forging collaboration between experts and local communities at UMADEP locations. UMADEP created two plots for trials and demonstration to facilitate the PAR exercise.

The fourth step involves business development. UMADEP managed to increase productivity beyond the demand of the local market (Mattee *et al.*, 2020). The challenge created a need for developing the project outcomes to meet market challenges. In 2005, UMADEP received funding from Intermon Oxfam to implement a proposal on rural business development (RBD). The RBD involved the following participatory steps: territory diagnosis and market opportunity identification; business skills training; business designing; and business tutoring and promoting business development services. RBD led to the creation of Local Interest Groups (LIGs). LIGs developed into Small-Scale Producers Groups (SSPGs) that addressed market challenges through ensuring a reliable supply of agricultural produce to markets. SSPGs also increased the bargaining power of the farmers (Mattee *et al.*, 2020).

The final step is critical Reflection. Critical reflections serve as the basis for social learning and negotiation (Mattee *et al.*, 2020). UMADEP strengthened farmers' groups and networks for them to serve as vehicles of project monitoring. Project monitoring allowed UMADEP to make adjustments, and improvements in line with project goals.

The RIPAT approach

RIPAT stands for Rural Initiatives for Participatory Agricultural Transformation. RIPAT was launched in 2013 in Dar es Salaam (Vesterager *et al.*, 2013). RIPAT is a combination of top-down and bottom-up approaches for technology transfer. RIPAT has strong elements of experiential learning, where the technically competent facilitator not only facilitates learning as in other Farmer Field Schools but also provides traditional top-down dissemination of knowledge and training on improved technologies to small-scale farmers. There is also some similarity to traditional extension services and to the Training and Visit programme (i.e., the training is carried out in groups and contains both lectures and practical experimentation on a common group field). The RIPAT approach aims at bridging the gap of production by ensuring community sensitization and mobilization of groups while building their capacity to utilize locally available resources and opportunities for

the improvement of livelihoods and resilience of small-scale farmers. Additional details on RIPAT are given in Chapter one and in other chapters of this book.

According to Vesterager *et al.* (2017), the RIPAT approach has the following features. First, there is an emphasis on full ownership by participants and authorities. Full ownership of the project participants concerned is promoted through careful sensitization of the communities' potential for change and through the mobilization of farmers to take charge of their development. A 'yes we can' attitude is promoted from the kick-off and throughout the project to encourage participants and to prepare them for change. The acceptance by farmers of the idea that they will have to pay for inputs, the use of livestock solidarity chains, and the obligation placed on farmers to redistribute planting materials to others in the village all promote a sense of project ownership and help to self-help concept, and these factors also increase the cost-effectiveness of the project. Training of lead farmers (LFs) and the involvement of the village government and the agricultural extension officers all promote the spreading to other farmers.

Second, there is an emphasis on channeling resources to the group. All knowledge, technologies, and inputs are channeled through the group. The group serves as a platform for training and information-sharing. The groups become a vehicle for economic development in the targeted village. Each group consists of 25-30 individuals, all from different households, who have common interests. The groups meet weekly during the first year for training and the practical sessions, and they are led by democratically elected leaders whose role is to organize and lead group activities and to act as stewards for group property. Leadership skills are developed; groups come to understand better the qualities of a leader. The knowledge is also used to help them select leaders in other contexts. Groups are trained and helped in working, solving problems, and making decisions together. Training in group dynamics promotes a sense of unity and cooperation, and group members learn to work together in harmony. It is intended that groups should stimulate development within their village, and even outside. They are trained in how to develop a voice and negotiating ability in the community and undertake advocacy work in their village on behalf of their members.

Third, RIPAT designates the group field as a learning centre. The group field is the classroom and the centre for learning. The group members acquire the plot(s) for four main reasons 1) learn by doing the practical hands-on exercises under the guidance of the facilitator

2) persuasive demonstration 3) source of planting materials and 4) proving economic returns per unit area. Farmers discover, discuss, analyse, and make decisions in connection with each technology, and they compare traditional practices with improved technologies. The curriculum follows the natural cycle for each technology step-by-step. The curriculum for a specific technology is complete when the farmers have undertaken all the practical sessions during the production cycle. The inclusion of perennial crops and livestock technologies in the basket of options requires that facilitation takes place over periods longer than one year. The entire community is invited to visit the group field once a year.

Fourth, RIPAT emphasizes the conducting of a situation analysis as a prerequisite. A thorough analysis of the situation in an area is a prerequisite for offering suitable development initiatives. Information is gathered by visiting villages and holding focus group discussions with farmers and individual interviews with village leaders, agricultural extension officers, and other key informants.

Fifth, there is the development of a basket of options. Based on the situation analysis and hence, input from farmers and experts, a suitable participatory basket of options is designed which includes a variety of technologies that are believed to tap the existing potentials/opportunities and curb the identified challenges to improve the food and nutrition security and poverty situation. The use of locally available resources is emphasized in the selection of technologies. Farmers decide for themselves what technologies are relevant for them to implement in their fields. Several points concerning each technology are presented and discussed with the farmers, including economic analyses, to help the farmers choose the most viable options from the selection offered.

Sixth, there is teaching, training and facilitation following the selection from a basket of options. RIPAT includes the transfer of knowledge from competent facilitators to farmers. New technical knowledge is added to the farmers' existing knowledge. To bridge the technology gap, the group facilitator (GF) facilitates farmers' learning and understanding. Training is usually both theoretical and practical. Foremost, the GF teaches the group about the technical principles of the basic science behind, and the steps in implementing a given technique. Then he/she guides the farmers through the practical steps, thus enabling them understanding and skills. The farmers' experience is used in conjunction with the explanations given of the scientific principles behind each practice, and any lack of knowledge on the farmers' part is

remedied during the training. Problems and challenges are tackled as they arise during the natural agricultural cycle; farmers learn to make management decisions, and where necessary, technologies are adapted to suit the local conditions.

Seventh, there is collaboration with the implementing organization. The implementing organization (IO) has appropriate knowledge of the local project setting and has responsibility for ensuring good collaboration and coordination with local government institutions – especially with extension officers (EOs) and any other organizations working in the area. The IO ensures quality group facilitation and timely availability of project inputs (seeds, tools, animals, etc.).

Eighth, there is independent monitoring and quality control. The RIPAT approach includes the involvement of an independent body that carries out continuous quality control to check whether the standards laid down in the plan are being achieved in practice. However, group members, project managers, and the IO should also carry out monitoring and evaluation to learn of, reflect on, and act upon any discrepancies between goals and achievements about the activities implemented.

Comparative analysis of the approaches and sustainability

The findings suggest that the three approaches have taken into consideration the participatory criteria. Overall, RIPAT, Process and ADP approaches have taken into consideration the participatory principles in that they put an emphasis on empowering beneficiaries; fostering ownership and control by the communities; accommodating innovations; guaranteeing inclusiveness of all; ensuring sustainability through the involvement of key stakeholders such as government and development agencies; and finally, safeguarding effectiveness and efficiency in the attainment of intended goals.

Moreover, the approaches have some similarities. First, the approaches put into consideration the development goals, which are: community empowerment, improving community welfare, tapping the potential of indigenous knowledge, reducing vulnerability, and targeting the poor. Unlike the process and ADP approaches, RIPAT ensures that by sensitization meetings community members are empowered enough to know out of their own will that they are going to join the programme, cover their expenses for inputs and group development. Some of the project interventions were directly sponsored by external donors.

Second, they all acknowledge that development starts from recognizing the local capacities of the people. Considering basket of

options of RIPAT, the process recognizes local knowledge, resources, and expertise in the selection of technologies that are going to be implemented. Farmers are given an opportunity to merge the new technology with the existing one. This suggests sustainability. The process approach somewhat observed a similar path through the following steps: Observation, Organization, Innovation, Collaboration, and Communication. The steps were substantial for the success of the process approach. Likewise, the ADP follows the following participatory stages: Planting stage, Germination, Growth, Flowering/fruiting, and Propagation.

Third, the approaches encourage farmers' replication of trials in individual fields. Participating farmers in all approaches are required to replicate the project interventions to their farms. It is so much more with RIPAT. That is, under the RIPAT approach the direct recipient of the project support is required to share their knowledge and materials with at least three neighbours who are not participating members of any RIPAT group. This stands as the strength of the RIPAT in comparison to the other two approaches.

Fourth, the approaches have managed to raise farmer's concern about marketing of increased output. The three approaches prioritize marketing of farmers produces after bridging the technological gap. The process approach under its UMADEP project in Nyandira has been more successful than the other two approaches. To date, the Nyandira market is functioning, and farmers continue to use it and produce agricultural products in line with the interventions from the process approach. Although the RIPAT approach focuses on training farmers on processing and value addition on what they produce, much more needs to be done to ensure a reliable market for the produce. The efforts to address the challenge are worth noting. RECODA has developed a systematic manner of acquiring the market for the produce of the farmers. In this regard, the RIPAT approach starts working with farmers producer groups (PGs) of 25–30 members. There is an emphasis on the participation of at least two groups per village. The PGs are later registered and graduate into producer associations (PAs). A PA is the cluster of several PGs. The measures are accompanied with the creation of market collection centres for all projects applying the RIPAT approach. More recently, RIPAT approach has adopted the Farmer Market School (FMS) approach to strengthen the areas related to marketing of agricultural produces. Finally, the ADP approach has not gone beyond mobilizing farmers in groups, SACCOS, and other

collectives to address the challenge of the market. In this regard, the RIPAT and the ADP approach need to draw some lessons from the process approach. Likewise, the recent measures to improve the RIPAT approach are promising.

Sustainability

Given the challenges of participatory approaches on sustainability (Kelsall & Mercer, 2003), the book chapter has given special focus on sustainability. According to Vaidya and Mayer (2014), participatory approaches rely primarily on the knowledge of key stakeholders or beneficiaries about local context to define sustainability. Concerning the sustainability of the interventions of the three participatory approaches, they all facilitate the mobilization of the project beneficiaries. There is, among other things, training of farmers on SACCOS to enable them to finance their daily activities. There is substantial evidence that members' participation is higher in such collectives across all three approaches. This suggests the sustainability of the interventions of the three approaches.

One must take note that although there have been so many agricultural development projects in the country, the outcomes of such projects can hardly be sustained. One can hardly trace their existence after they have been phased out. So much investment has been made by the government and other actors to boost the agricultural sector with little to no success. There are so many reasons why the sustainability of a funded project is a challenge to our country. Some of the interventions of the process approach can still be traced in the project implementing areas of Nyandira and Mlali years after the project phase-out. The presence of Nyandira Market and Milk goats continue to exist years after the cessation of the project. Likewise, a study conducted by one of the authors at Kinyangiri ADP five years after programme phase-out showed the presence of farmers' collectives including SACCOS, women's associations, and a CBO. However, there was a weakening of the project interventions. Although the ADP approach spends 15 years at the project sites, there were complaints from the local communities that the projects were phased out before attaining maturity. The finding suggests that spending long periods with local communities creates dependency on external agents.

In this regard, the RIPAT approach is unique as compared to the other approaches. There is a mandatory establishment of farmer groups with good leadership to enable the transfer of appropriate agricultural

technologies through participatory demonstrations using experimental and reflective learning techniques. Here, there is an emphasis on close collaboration with local government authorities, village leaders, and government agricultural extension officers to ensure the continuation of the project and its further spread to the wider community. Further, the RIPAT project is designed into two phases. The 'start' phase involves capacity building of the 'community-based experts' i.e., Lead Farmers (LFs) and Extension officers. The community experts play a significant role in the RIPAT 'spreading' phase as they embark on spreading the interventions and ensure its sustainability. The LFs goes beyond delivering the extension services to become a community change agent and social entrepreneurs. Also, under RIPAT, there is a formalized collaboration (agreement) on how LFs/NGOs work with local government. The Process and ADP has made similar arrangements by empowering some community representatives for them to sustain the project at the end. There have been some sustainability challenges of the approaches. As such, there is a need to conduct a project evaluation of RIPAT interventions years after they have been phased out to truly assess their sustainability.

Conclusion

The comparison of the process and ADP approaches to the RIPAT approach provides some illuminating lessons. The lessons can be used to improve the RIPAT approach. The findings suggest RIPAT has a more promising future due to innovative integration of some extension's approaches. That is, the process and the ADP approaches integrated several conventional extensions approaches that encountered sustainability challenges. Further, although the process and ADP approaches are older than the RIPAT approach, one can find similarity in the approaches. Overall, the approaches are participatory ones. Lessons from the implementation of the approaches suggest that participatory approaches can lead to the sustainability of rural development interventions. However, the RIPAT approach is unique as compared to the other approaches following a mandatory establishment of farmer groups with good leadership to enable the transfer of appropriate agricultural technologies through participatory demonstrations using experimental and reflective learning techniques. The creation of participating farmers for them to use their funds is a signature achievement of the RIPAT approach. Lessons from the ADP approach suggest that spending long periods with local communities can create dependency on external

agents to the detriment of the local communities. Lessons can be drawn from the RIPAT which emphasizes full ownership of the interventions using farmers' resources. Despite the successes of the RIPAT approach, lessons on addressing marketing challenges can be drawn from the process approach. The process approach was a success in addressing the challenge. Experience from the process approach suggests that external support is needed for some macro projects including the construction of market infrastructure and resources centres. That is, external funding should only focus on training and construction of facilities of relevancy to communities. Complete reliance on farmers' resource is not sufficient in the attainment of rural development.

References

- Chambers, R. (1994). 'The Origins and Practice of Participatory Rural Appraisal', *World Development*, 22 (7): 953-969.
- Chambers, R. (1997). *Whose Reality Counts? Putting the First Last*, London: Intermediate Technology Publications. 247pp
- Chambers, R. (1993). *Challenging the Professions: Frontiers for Rural Development*, London: Intermediate Technology Publications. 180pp
- Cleaver, F. (1999). Paradoxes of Participation: Questioning Participatory Approaches to Development. *Journal of International Development* 11 (4): 597-612
- Freire, P. (1999). *Educação Como Prática da Liberdade*. Rio de Janeiro, Brazil: Paz e Terra. 149 pp
- Green, G. P. (2013). *Handbook of Rural Development*. UK: Edward Elgar Publishing Limited. 358pp
- Hodge, I. and Midmore, P. (2008). Models of Rural Development and Approaches To Analysis Evaluation And Decision-Making. *economie Rurale* 307 (5): 23-38. DOI: 10.4000/economierurale.406
- Kelsall, T. and Mercer, C. (2003). Empowering People? World Vision & 'Transformatory Development' in Tanzania, *Review of African Political Economy*, 30 (96): 293-304
- Kilroy, W. (2015). *Reintegration of Ex-Combatants after Conflict Participatory Approaches in Sierra Leone and Liberia*. New York: Palgrave Macmillan. 255 pp
- Lee J., Árnason A., Nightingale A., Shucksmith D.-M. (2005). networking: social capital and identities in European rural development. *Sociologia Ruralis*, 45 (4): 269-283.
- Mattee, A.Z. (1998). Farmer to farmer extension in natural resource management: An example from UMADEP, Morogoro. In: Isinika, A.C., I.H. Kawa, S.M. Neke and R.M. Wambura (Eds.). *Proceedings of the workshop on extension services delivery systems: Experiences and lessons*