

Capacity Building Exit Strategies and Sustainability of Donor Funded Livelihood Projects in Kilifi County, Kenya

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Abstract: Donor agencies have heavily funded livelihood projects in Kilifi County but these projects struggle with sustainability with some halting operations immediately the funding is withdrawn. The purpose of the study was to investigate the influence of project exit strategies on sustainability of donor funded livelihood projects in Kilifi county, Kenya. The objective of the study was to establish how capacity building exit strategies influence sustainability of donor funded livelihood projects in Kilifi County. The descriptive correlational research design was used. A sample size of 170 was selected from a population of 295 from three livelihood projects using Slovin's formula. 7 interviews and 3 focus group discussions were carried out. Prior to data analysis statistical assumptions were tested. Standard deviations, standard error of means and arithmetic means were used for descriptive analysis while Pearson's Product moment correlation, linear regression, F-tests and t-tests were used for inferential analysis using statistical package for social sciences. It was established that the mean perception of sustainability did not differ significantly with projects ($p=0.192$), gender ($p=0.669$), age ($p=0.724$), and marital status ($p=0.284$). However, there was a significant difference in mean perception of sustainability of projects among the different groups based on the highest level of education attained ($p=0.011$) and duration of stay in the project ($p=0.00162$). H_01 , $r=0.495$, $p=0.000 < 0.05$ was rejected and concluded that capacity building exit strategy significantly influenced sustainability of donor funded livelihood projects. Policies should be reviewed or formulated to provide an environment to support capacity building initiatives (training, appropriate technologies, enhance resource capacities). Use of simple and direct Likert items, use of diverse projects is recommended. Further studies can be done on influence of community ownership and project control systems on project sustainability.

Keywords: capacity building exit strategies, donor funded livelihood projects, training, technological capacity building, resource capacity building

1. Introduction

1.1 Background of the study

Projects have been there as an approach to development since time immemorial. Projects are often utilized as a vehicle through which institutions achieve their goals (PMI, 2008). They are seen as the ideal instruments of change in society (Silvius & Schipper, 2014; Marcelino-Sadaba et al, 2015). Due to the need to increase income base and diversify food sources and livelihood options, governments across the globe and organizations have been implementing livelihood projects (Wicander & Coad, 2015; Lu & Lora-wainwright, 2014).

Sustainability has attracted intense scholarly interest among academicians, researchers, development institutions and governments with between 5 and 10 articles published yearly in between 2009 and 2015 (Silvius & Schipper, 2014; Carvalho & Rabechini, 2017; Aarseth, 2017). There is increasing pressure and growing sensitivity on organizations and donors and researchers to include sustainability issues in the projects (Marcelino-Sadaba et al, 2015).

Chofreh, Goni, Shaharoun & Ismail (2015) define sustainability as endurance of processes and system. Bond et al (2014) simply referred to sustainability as long term programme continuation following implementation and or simply the maintained practice past the implementation

phase. From Oina et al (2015) it can be deduced that sustainability refers to the degree to project persistence despite the withdrawal of donors. It is with these varieties of definition that ability to endure and regenerate benefits and continue implementation upon withdrawal of donor funding will be adapted in this current study.

Project exit strategy is a descriptive plan of how the project sets to withdraw its resources without endangering the achievement of the project goals while ensuring the progress towards these goals will continue (Gardner, Greenblott & Joubert 2005; and Roger & Macias, 2004). It describes how target community will be discharged from a project (Simon & Ismail, 2008). It guarantees sustainability of project impacts after an intervention has ended or withdrawal of external support and to enable more progress towards the program or project's development goals. Failure to include exit strategy during planning may result into haphazard and uncoordinated execution of exit activities in the close proximity of the program's end.

Capacity building as an exit strategy is described as enhancing the ability of local community to make informed decisions and allocate resources with aim to support the community assemble internal resources to operate its developmental plans with a least of external support. It aims at innovativeness of specialized management issues such as resource mobilization and financial management among others. In enhancing the ability of local community training,

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technical and supplemental financial assistance is required (Minzner, 2014; Karanja, 2014).

The Southern African AIDS Trust (SAT) a regional NGO supporting HIV/AIDS programme in South Africa used capacity building (through training and funding) as a strategy (Rogers & Macias, 2004). Later on, SAT developed tools to assess effectiveness of the exit strategy. The SAT Organizational Capacity Assessment Tool (SOCAT) was developed to assess organizational capacity and programming; and SAT Community Competence (SAT-COMP) assessment tool to assess community competence in addressing HIV and AIDS (Simon & Ismail, 2008). Minzner, et al (2014) Compassion Capital Fund (CCF) Demonstration Program a US\$500,000 ACF funded program focused on technical assistance, training and financial support as capacity building strategy to exit programmes. Sustainable Communities Initiative Regional Planning Grant SCI-RPG awarded \$165 million to 74 metropolitan regions across the United States for regional planning (Geevarghese & Tregoning, 2016). It also funded \$10 million worth to support capacity building and technical assistance by national nonprofits in regions. Karanja (2014) focused on: leadership, training, monitoring & evaluation, and financial management aspects in relation to project sustainability

1.2 Statement of the problem

The national and county governments in Kenya together with donor bodies such as Department for International Development (DFID), Canadian International Development Agency (CIDA), World Bank, United Nations Children's Fund (UNICEF), and United States Agency for International Development (USAID) among others have joined hands to improve the living standards of its citizens through implementation of various livelihood projects. This is so as they consider projects a means of achieving this (Silvius & Schipper, 2014; Marcelino-Sadaba et al, 2015).

One of the most worrying issues is that these governmental and donor funded projects have stalled or gone dormant immediately or shortly after the donors phase out or funding is withdrawn. Oino et al (2015) and Kimweli (2013) also argue that in Kenya a lot of money is spent in community-based projects up till now majority of such projects have in general not succeeded in bringing sustainable benefits and profits to the target groups. Wabwoba & Wakhungu (2013) in their study on sustainability these food security and livelihood projects (in Kiambu) it was revealed that these have little impacts when external funding ceases.

This is still similar with livelihood projects in Kilifi County. In support of this observation, Tang et al (2013) also noted that the trend with sustainability of projects is dissatisfying, as only a smaller number of projects are being sustained. Karanja (2014) similarly observed that the costs incurred during execution do not correspond with the benefits accrued in the counterpart county of Murang'a. Most donor funded livelihood projects are promising towards closure but the situation changes when funding is withdrawn and the donors are at a distance. These projects struggle to endure the waves that come after termination. This dismal

sustainability continues to deprive the communities of the expected returns from the projects. This by extension is experienced with Gandini Food security and livelihood project, Dodosa High Impact Project and Uvumbuzi project.

Oino et al (2015) further elucidates that though many projects emphasize elements of sustainability at their proposal stage, the actual execution appears to be short of emphasis on sustainability.

In Kilifi County, less is known through research about the sustainability of these donor funded food security and livelihood projects. No rigorous study has been done in relation to how implementation of the exit strategy influences project sustainability of donor funded livelihood projects post-implementation in Kilifi County though some by Wren & Speranza (2010); Kisengese (2012); and Mwamuye, (2014) have studied livelihood projects. Harrison (2005) and Okoth (2012) studies single aspects of sustainability but not as exit strategies.

It is against this context that this study sought to investigate the relationship between capacity building exit strategies of the project and sustainability of donor funded livelihood projects (DFLPs) in Kilifi County.

1.3 Purpose of the study

The purpose of the study was to investigate the influence of capacity building exit strategies on sustainability of donor funded livelihood projects in Kilifi County.

1.4 Objective of the study

The objective of this paper is to establish how capacity building exit strategies influences sustainability of donor funded livelihood projects in Kilifi county.

1.5 Hypothesis

This study was guided by the hypothesis below

H₀: Sustainability of donor funded livelihood projects in Kilifi County is not significantly influenced by project capacity building exit strategies

H₁: Sustainability of donor funded livelihood projects in Kilifi County is significantly influenced by project capacity building exit strategies

1.7 Limitations and Delimitations

This study was limited by time and cost. Donor funded livelihood projects are implemented in different contexts as such a wide scope of contextual factors that would require the researcher to study a number of them so as to generalize the findings. Assured participation and by the target population is another anticipated limitation. This area is used to developmental project-oriented surveys in which in return there are almost immediate tangible benefits in terms of initiatives or interventions.

The study was delimited to Gandini food security and livelihood project, Dodosa High Impact Project and Uvumbuzi Project in Garashi ward in Magarini in Kilifi County because of the context and nature of the projects

being studied. The study focused on donor funded projects working towards strengthening the economic base and biodiversity of the target population.

The other delimitation was on the establishment of the influence of exit strategy implementation on sustainability of donor funded alternative livelihood projects as moderated by stakeholder management in Kenya.

2. Literature Review

2.1 Sustainability of projects

Project sustainability brings the distinction between successful and failed community-based projects (Oina et al, 2015) and because of this imperative interplay many institutions (70% of the respondents) in a study by Kiron et al (2012) were found to be tabling sustainability on the management agenda and consequently upping their commitments toward it and always asking what to do next to make sustainability become part of their system. Even though its integration in projects is gaining momentum, it is also vulnerable. Jenkins et al (2010) point out that some projects in low and middle earning countries face challenges with sustainability due to competition with other priorities.

There are numerous descriptions of project sustainability are as a result of increased scholarly interest and increased pressure by donors and organizations (Pohl et al, 2010; Silvius & Schipper, 2014; Aarseth, 2017 and Carvalho & Rabechini, 2017). As such there is no universal definition of term sustainability Mattiuzzi, 2017; 2017; Karanja (2014); Bond et al (2014) and Spaling, Brouwer & Njoka (2014); Chofreh, Goni, Shaharoun & Ismail (2015). Perrini & Tencati (2006) combines the above definitions by referring to it as the capability of an organization or an institution to continue its activities indefinitely, while taking into consideration the economic, social, and environmental dimensions of a project.

From the works of Bond et al (2014) and Spaling, Brouwer & Njoka (2014) sustainability is a long term programme continuation following implementation and or simply the process of maintaining the practice beyond the implementation phase while relating to projects or programmes.

Chirenje, Giliba & Musamba (2013) studied the determinants of project sustainability in Indonesia; and Oina et al (2015) in community based project in Kenya respectively found and categorized them into technical (appropriateness of technology and technical skills); economic aspects (cost efficiency, cost recovery and operational requirements); social aspects (participatory decision making and resistance or acceptance); and organizational factors (administrative or management support and legal support).

While demystifying the dilemma facing sustainability Oina et al (2015) says that sustainability is exhibited when there is continued reaping of dividend, participation and ownership in the project. Projects are considered sustainable when the target community, without external support, is able to

continue producing beneficial results provided that the problem subsists (Spaling, Brouwer & Njoka, 2014).

2.2 Capacity building exit strategies and sustainability of donor funded livelihood projects

In project management capacity means the ability to achieve project aims. Capacity is defined as practices, skills and systems that permit organizations or groups to function more effectively and sustainably (Minzner, 2014). As earlier seen comprehensively capacity refers to the ability to anticipate and influence change; make informed decisions; mobilize, absorb, and manage resources; and evaluate current activities to guide future actions. In any locality there exists some level of capacity even without project, but projects are initiated is so as to enhance the capacity of the target group. This is referred to as capacity building. Honadle (2018) describes capacity building as the process of increasing the ability of institutions and people to do the right thing.

Capacity building as an exit strategy can be described as enhancing the ability of local community to make informed decisions and allocate resources with aim to help the community build internal resources to carry on its developmental plans with a minimum of external assistance. It aims at innovativeness of specialized management issues such as resource mobilization and financial management among others. There are various approaches to capacity building as seen by various scholars and institutions. Approaches such as training, funding, technical assistance and technological backstopping (Rogers & Macias, 2004; Simon & Ismail, 2008; Minzner et al 2014; Karanja, 2014) have been studied.

Trainings are provided to the target local community with an aim of ensuring good management practices at the community level. This ensures that communities have sufficient resources and capacities to continue with the project even in the absence of the external support (Karanja, 2014). There was a positive correlation between committee training and sustainability of water systems in a study by Katz & Sara (1997) on rural water systems in Uganda, Bolivia, Honduras, Benin and Indonesia. Training in new methods or technologies has been also shown to contribute to increased outputs during project implementation which is hoped to continue doing so post-implementation.

De Jager et al (2001) showed how introduction of Integrated Nutrient management by combining low- and high-income input agriculture resulted into improved economic performance however with compromised sustainability than the use of the conventional or traditional ways. Provision of training in mental health and routine supervision of health workers at local level in mental health was found by Jenkins et al (2010) to be a sure way of improving sustainability of health initiatives at the local level.

A project should endeavor to offer capacity building to major groups. Chirenje, Giliba & Musamba (2013) emphasize that it is paramount to ensure that major categories like youth, women, the physically handicapped, traditional leaders and receive capacity building in order to attain their full participation in such matters as planning and budgeting.

Another aspect of capacity building through training is that people can benefit directly or indirectly. Direct benefit is where the target groups acquire knowledge and skills and apply for their own gains while indirect benefit is where neighbors gain from learning from others. The two categories of benefits of capacity building were seen in a study by Cornish et al (2015) in East India Plateau where yield and returns on rice increased after farmers took part in participatory action research. Through capacity building the farmers were able to change from conventional methods of farming and practice alternative cropping systems.

Technological capacity building is about introduction of new methods (technologies and practices) and installation of the systems, provision of inputs, tools and equipment. This enables the proper use of knowledge and skills acquired during training and supporting the adopters embrace the use and benefits of the new ideas in the DOI theory by (George et al 2010 and Durst & Poutanen, 2013).

As a way to enhance sustainability of the food security and livelihood project implemented in Tanzania's three districts of Kilosa, Kongwa and Chamwino districts various local implementing agencies (Uluguru Mountains Agricultural Development Project, Women and Poverty Alleviation in Tanzania, and Social and Economic Development Initiative of Tanzania) installed the infrastructure to support functions such as providing training, establishing cooperative associations and markets (Anguko, 2018). There is a thin but a huge difference between technical assistance and training as forms of capacity building.

Sustainability defined as capacity to function effectively over time with minimum external support or input (LaFond, 2013). This definition sparks the contemplation that there should be some form of support from the donor of implementing agency for closed out projects. As an exit strategy donors and implementers need to realize the importance of provision of adequate operational finance (capital for ongoing activities (especially during the implementation phase. Hindrances related to planning, management and financing are contributors to constrained and restricted sustainability in most projects. Sound planning and proper management skills are required for continuity, survival and growth in projects (LaFond, 2013).

2.3 Theoretical framework

This study is anchored on the following theoretical underpinnings: The Discovery Learning theory and Diffusion of Innovation (DOI) theory.

2.3.1 Discovery theory of learning by Jerome S. Bruner (1960)

The theory was advanced by Bruner (1960). The theory is popular in education where teaching is an exchange of knowledge from teacher to student in a school setting.

Discovery learning is an inquiry-based, cognitive, constructivist learning theory that occurs in problem solving situations. The learner relies on the existing knowledge and past experience to find out facts and relationships and new truths to be learned. In this learning, the learner is

confronted with a problem and left to find solutions with or without guidance (Bruner, 1960; and Mayer, 2004); the learner intrinsically motivated to learn new things (Knowles (1990). This learner should learn and do something with the knowledge and skills acquired.

The theory of discovery learning attempts to guide, explain and prescribe how learning takes place and as such it is helpful to ponder on their application to how different people along the age, context, backgrounds lines during designing of capacity building programs.

The theory is found useful in this study as the target population (farmers) could have their past experience with the conventional way of living (agriculture and pastoralism) such as stressed and low paying production, low yields, lower living standards; and from this problem they learned to solve them.

2.3.2. Diffusion of innovation theory by E. M. Rodgers

This is a social science theory that originated in communication. It was developed by E. M. Rodgers in 1962 (Rodgers, 2003; Doyle, Garrett & Currie, 2014) in attempt to expand and modify Lewin's theory of change (Mitchell, 2013). The theory attempts to explain how a new idea or skill or technology gains thrust and spreads through a given community or social system over time. Innovation is described as a practice, idea, object or a practice perceived to be new while diffusion as the process by which this innovation is disseminated within the social system, accepted or rejected.

The relevance of this theory to this study is that when a project is implemented in a community in often times there are new ideas that are brought into the community. For instance, for a livelihood project; new farming methods, new marketing approaches and new technologies and systems are introduced. It takes time for such new ideas to be accepted, stick and diffused. The ideas are accepted first by a few individuals then later expected to cascade to the rest of the members.

Thus reinforcement (maintenance) of the use of the idea is critical for sustained benefits and as Cairncross, & Shordt (2004) it is not inevitable that behaviors will fade or that as years go by people will revert to earlier ones.

2.4 Research gap

Systematic literature studies (Aarseth et al., 2017, Silvius & Schipper, 2014) do not necessarily translate similarly in different project contexts. Limitedness of generalization of the study findings, due to the bias of non-probabilistic sample (Carvalho & Rabechini, 2017). Use of qualitative methods alone (Wabwoba & Wakhungu, 2013). Study by Bond et al. (2014) sampling only involved one respondent per site and relied on reports from respondents who had variable and limited knowledge of the project follow-up period. sample size in Stevens & Mody (2013) sample was too small (20 out of 162) and the only qualitative methods. Some studies (Karanja, 2014; Simon & Ismail (2008) employed small sample size that would influence internal validity and generalizability of findings. For instance, study

by Karanja (2014) involved only 57 in a population of 630. Only one data collection approach (either qualitative or quantitative). Karanja (2014) purely qualitative. The study evaluated changes in capacity over a short timeframe, thus it was only possible to measure capacity built during that period, but not changes in services delivered and improvements in client outcomes (Minzner et al. 2014). This study relies on empirical investigation while considering a representative sample size, multiple methods of data collection in the context of projects in Kilifi county, Kenya.

3. Research Methodology

This study employed descriptive correlational research design. This is a combination of descriptive research and correlational research approaches. Descriptive design was used in making careful in-depth observations of the phenomenon of interest. In accordance with Creswell (2012) the correlational research design involved the measurement of capacity building exit strategies and sustainability of donor funded livelihood projects and later determine the degree to which these variables are related. When descriptive design and correlational designs were used for the researcher to understand the features of the population and study the relationships or associations between or among variables.

A population of 295 farmers was targeted for quantitative data collection. The population was distributed as 140 farmers of Gandini livelihood and food security project; 95 farmers of the Dodosa High Impact project; and 60 farmers targeted by Uvumbuzi Project. The ward agricultural extension officer, ward livestock officer attached to the projects; irrigation officer, cooperative officer, 3 assistant chiefs from the area in which the projects were implemented were targeted for qualitative data collection. Thus, the target population was 295 farmers drawn from the tree projects and 7 individuals from the technical and administration class totaling to 302 members.

The sampling frame for the study was the farmers in Gandini food security and livelihood project, Dodosa High Impact project and Uvumbuzi project. The sample size of was obtained using Solvin's formula (Singh & Masuku, 2014).

$$\text{Sample size } (n) = \frac{N}{1 + Ne^2}$$

$$n = \frac{295}{1 + 295(0.05^2)}$$

=170 respondents

This study employed both probabilistic (random) and non-probabilistic (non-random) designs of sampling. Random sampling was adopted to give every member of the population an equivalent chance of appearing (or being included) in the sample (Bordens & Abbott, 2011).

Further, based on the use of quantitative and qualitative methods to research, this study used a nested-concurrent sampling design in which a large sample participates in [either] quantitative [or qualitative] and the small sample participates in the opposite simultaneously in a single

research phase. Proportionate cluster and simple sampling for individual interviews (quantitative data) while purposive sampling used to select key informants and members of the population that constituted the focus group discussion.

In Gandini 80 farmers were sampled while 55 were sampled in Dodosa project. In Uvumbuzi project 35 were sampled. In addition, one agricultural extension officer, one livestock officer, one irrigation officer, one cooperative officer and three local administrators from the respective project sites were included. This made the total to 177 respondents taking part in data collection.

Pre-constructed questionnaires with pre-determined response categories were used to avoid free expression of thoughts and feelings of the subject. The questionnaire responses in sections B, C, D, E, and F were based on 5-point Likert scale. Semi-standardized one-on-one interviews were used to gather data from the 7 key informants. Three focus group discussions were carried out as one men FGD in Gandini, one women FGD in Dodosa and one project committee FGD.

Cronbach Coefficient was used to measure reliability. Kinyanjui (2014) points out that Cronbach Coefficient is applied to test internal consistencies of samples of a particular population.

The introductory letter was obtained from the University of Nairobi, School of open and distance learning introducing the study to the relevant authorities. The letter facilitated the acquisition of the permit for research from National Commission for Science Technology and Innovation (NACOSTI). The researcher also sought approvals from Kenya Red Cross Society, County commissioner's office and the County Director of Education in Kilifi County. The Magarini sub-county and local leadership Gandini, Baricho and Singwaya sub-locations was also reached out for permission.

Five research assistants were trained in data collection with emphasis on the use of kobo collect application and research ethics.

Seventeen questionnaires were pretested in Paziani in Paziani sub-location, Malindi division, and Malindi sub-county in Kilifi County. There had been a similar project supported by World Food Program that had been closed in 2018. The data collected was further checked for completeness before being subjected to data analysis.

This prior process entailed data cleaning, editing, coding and error checking.

Quantitative data was analysed using descriptive and inferential data analysis techniques. Descriptive analysis was undertaken using central tendency (mode, means and median), frequency distribution and percentages) and measures of dispersion (variance and standard deviation) to understand the characteristics of the respondents. The inferential analysis was carried out using correlation and regression model to test the hypothesis and test for

associations among variables of interest under this study. ANOVA was used to test model fitness.

Measures of central tendency, dispersion and variability were used to examine the strength and weakness of central tendency and how values are spread around the central tendency (statistical dispersion) using mode, mean, and standard deviation. The level of confidence was set at ninety five percent (95%) while the level of significance alpha will be set at 0.05. Inferential and descriptive statistics were generated using Statistical package for social sciences version 25 (SPSS 25).

4. Findings

4.1 Response rate

Questionnaires were administered to a sample of 170 farmers. 163 were returned complete. This represented 95.88% questionnaire response rate. In-depth interviews were conducted with 7 key informants that had been targeted.

4.2 Training and sustainability of donor funded livelihood projects in Kilifi County

The researcher pursued to establish the extent to which the respondents perceived the trainings influenced sustainability of donor funded livelihood projects. The respondents were requested to indicate their level of agreement or disagreement based on the 5-point Likert scale as strongly disagree (SD)=1; Disagree (D)=2; Neutral (N)=3; Agree (A)=4; and strongly agree (SA)=5.

The findings were as indicated in the table below.

Table 1: Trainings and sustainability of donor funded livelihood projects (DFLPs) in Kilifi County

	SD F (%)	D F (%)	N F (%)	A F (%)	DA F (%)	N	Mean	S.E.	Std. Dev
CB1	2 (1.2%)	7 (4.3%)	0 (0%)	86 (52.8%)	68 (41.7%)	163 100	4.29	0.061	0.785
CB2	1 (0.6%)	1 (0.6%)	1 (0.6%)	98 (60.1%)	62 (38%)	163 100	4.34	0.046	0.592
CB3	0 (0%)	5 (3.1%)	2 (1.2%)	92 (56.4%)	64 (39.3%)	163 100	4.32	0.051	0.655
Composite							4.32	0.158	2.032

CB1: You were adequately trained before the project closed
 CB2: You have skills required to carry out crop husbandry
 CB3: You apply the skills you received in previous trainings before project closure

The table 1 above presents the findings in respect to responses to the three pointers of the respondents' perception towards trainings offered during the project life. All items were stated positively. All the 163 responded to these items. Item 1 (CB1) sought to find out whether the respondents had been trained adequately before the project closed. As indicated, 2 (1.2%) of the respondents strongly disagreed; 7 (4.3%) disagreed; none had a neutral stand; 86 (52.8%) agreed and 68 (41.7%) strongly agreed. The majority (94.5%) were positive to the adequacy of the trainings. The mean was 4.29 and standard deviation was 0.785. The sample perception lied between 3.505 and 5.075 implying that the respondents were adequately trained before the project closure.

Item 2 (CB2) sought to establish the respondents' opinion on whether they had skills required for crop husbandry. Only 1 (0.6%) strongly disagreed; 1 (0.6%) agreed; 1 (0.6%) was neutral; 98 (60.1%) agreed; and 62 (38%) strongly agreed. The majority of the respondents (98.1%) had a positive stand. The mean was 4.34, standard deviation of 0.592 and a standard error mean of 0.046. The perception lies between 3.748 and 4.932. This imply that the respondents held the view that they had adequate skills for crop and livestock husbandry.

Item 3 (CB3) sought to find out whether the respondents applied the skills acquired in the trainings before the project closed. None (0%) of the respondents strongly disagreed; 5 (3.1%) disagreed; 2 (1.2%) were neutral; 92 (56.4%) agreed; and 64 (39.3%) strongly agreed. the majority of the respondents (95.7%) were positive to the opinion. The mean was 4.32, standard deviation of 0.655 and standard error of mean of 0.051. The mean perception lied between 3.665 and 4.975. This implied that that sample perceived to apply the skills they received before the project closed. The overall mean perception of 4.32 indicate that the respondents agreed strongly that training influenced sustainability of DFLPs in Kilifi County.

4.3 Technological support and sustainability of donor funded livelihood projects in Kilifi County

The three Likert items of this indicator sought to establish the extent to which the respondents perceived the technological support influenced sustainability of donor funded livelihood projects. The respondents were requested to indicate their level of agreement or disagreement based on the 5-point Likert scale as strongly disagree (SD)=1; Disagree (D)=2; Neutral (N)=3; Agree (A)=4; and strongly agree (SA)=5. All the items were stated positively. The mean and the standard deviation findings for the three items are as shown in the table 2.

Table 2: Technological support and sustainability of donor funded livelihood projects in Kilifi County

	SD F (%)	D F (%)	N F (%)	A F (%)	DA F (%)	N	Mean	S.E.	Std. Dev
CB4	0 (0%)	1 (0.6%)	4 (2.5%)	99 (60.7%)	59 (36.2%)	163 100	4.33	0.089	0.554
CB5	17 (10.4%)	57 (35%)	20 (12.3%)	64 (39.3%)	5 (3.1%)	163 100	2.90	0.092	1.131
CB6	2 (1.2%)	47 (28.8%)	12 (7.4%)	64 (39.3%)	38 (23.3%)	163 100	3.55	0.095	1.172
Composite							3.59		

CB4: The project installed/supplied the required system for production

CB5: The system installed/supplied is functioning satisfactorily

CB6: The system is maintained as required

In Table 2, Item 4 (CB4) sought to find out from the respondents whether the project provided the required system for production. All the 163 responded to these items. None (0%) of the respondents strongly agreed; 1 (0.6) disagreed; 4 (2.5%) were neutral; 99 (60.7%) agreed; and 59 (36.2%) strongly agreed. The majority (96.9%) held a positive response on requirement of the system provided. The mean was 4.33, standard deviation 0.554 and standard error of mean of 0.089. The sample perception on provision of the required system lied between 3.776 and 4.884 implying that the respondents held the view that the project provided the required systems.

Item 5 (CB5) pursued to establish whether the system provided functioned satisfactorily after the closure. From the findings, 17 respondents (10.4%) strongly disagreed; 57 (35%) agreed; 20 (12.3%) were neutral; 64 (39.3%); 5 (3.1%) agreed; and strongly disagreed. The mean was 2.90, standard deviation was 1.131 while the standard error of mean was 0.092. The mean perception on satisfactory functioning of the systems lied between 1.769 and 4.031. This suggests that the respondents had mixed views about the functionality of the systems provided with more tending to the negative (disagreement).

Item 6 (CB6) sought to establish the perception on the system maintenance. The findings indicate that 2 (1.2%) respondents strongly disagreed; 47 (28.8%) disagreed; 12 (7.4%) were neutral; 64 (39.3%) agreed; and 38 (23.3%). The mean was 3.55, standard deviation was 1.172 and the standard error of mean was 0.095. The mean perception lied between 2.378 and 4.722. The respondents had varied views on the maintenance of the system with more tending towards positive (agreement). The overall mean perception of technological support's influence on sustainability of 3.55 indicate that respondents were positive that it influenced sustainability of DFLPs.

4.4 Resource capacities and sustainability of donor funded livelihood projects in Kilifi County

The three Likert items of this indicator sought to establish the extent to which the respondents perceived the resource capacities influenced sustainability of donor funded livelihood projects based on the 5-point Likert scale. The mean and the standard deviation findings for the three items are as shown in the table 3 below.

Table 3: Resource capacities and sustainability of donor funded livelihood projects in Kilifi County

	SD F (%)	D F (%)	N F (%)	A F (%)	DA F (%)	N	Mean	S.E.	Std. Dev
CB7	13 (8.0%)	43 (26.4%)	14 (8.6%)	74 (44.8%)	20 (12.3%)	163	3.27	0.095	1.207
CB8	14 (8.6%)	40 (24.5%)	14 (8.6%)	72 (44.2%)	23 (14.1%)	163	3.31	0.096	1.229
CB9	2 (1.2%)	20 (12.3%)	11 (6.7%)	103 (63.2%)	27 (16.6%)	163	3.82	0.070	0.897
Composite							3.46		

CB7: Since project closure other institutions or individuals have supported

CB8: You contribute financially towards the project activities

CB9: You have budgeting skills

In Table 3above Item 7 (CB7) sought to find out from the respondents whether the other institutions or individuals have supported the project since its closure. All the 163 responded to these items. The findings indicated that 13 (8.0%) of the respondents strongly disagreed; 43 (26.4%) disagreed; 14 (8.6%) were neutral; 74 (44.8%) agreed; and 20 (12.3%) strongly agreed. The mean was 3.27, standard deviation was 1.207 and standard error of means was 0.095. The mean perception other institutions or individual support lied between 2.067 and 4.477. This denoted that the respondents had mixed views on other individual and institutional support tending toward positive (agreement).

Item 8 (CB8) sought to find out the extent to which the respondents perceived they contributed towards the project activities. The findings showed that 14 (8.6%) respondents strongly disagreed; 40 (24.5%) disagreed; 14 (8.6%) were neutral; 72 (44.2%) agreed and 23 (14.1%) strongly agreed. The mean was 3.31, standard deviation was 1.229 and the standard error of means was 0.096. The mean perception lied between 2.081 and 4.539 implying that the sample perception was mixed with more on the agreement side.

Item 9 (CB9) sought to establish the extent to which the respondents perceived to have budgeting skills. The findings reveal that only 2 (1.2%) respondents strongly disagreed; 20 (12.3%) disagreed; 11 (6.7%) were neutral; 103 (63.2%); and 27 (16.6%) strongly agreed. The majority (79.8%) of the respondents agreed that they had budgeting skills. The mean was 3.82, standard deviation was 0.897 while the standard error of means was 0.070. The mean perception on other support lied between 2.923 and 4.717. The sample held the view they had budgeting skills.

Table 4: Summary means and standard deviations of capacity building exit strategies and sustainability of donor funded livelihood project in Kilifi county

Sub-indicator	N	Mean	Std. Error	Std. Deviation	Cronbach's coefficient
Trainings	163	4.3190	.04335	.55351	0.672
Technological capacity	163	3.5890	.04885	.62369	
Resource capacities	163	3.4642	.05658	.72240	
Valid N (listwise)	163				

4.5 Hypothesis testing

The study was guided by the following hypothesis

H₀: Sustainability of donor funded livelihood projects in Kilifi County is not significantly influenced by project capacity building exit strategies

H₁: Sustainability of donor funded livelihood projects in Kilifi County is significantly influenced by project capacity building exit strategies

4.6 Correlation between capacity building exit strategies and sustainability of donor funded livelihood projects in Kilifi county

Correlation was carried for association and obtained the findings as indicated in the table 5 below.

Table 5: Correlation between capacity building exit strategies and sustainability of DFLPs

		Sustainability of donor funded livelihood projects	Capacity building exit strategy
Sustainability of donor funded livelihood projects	Pearson Correlation	1	.495**
	Sig. (2-tailed)		0.000752
	N	163	163
Capacity building exit strategy	Pearson Correlation	.495**	1
	Sig. (2-tailed)	0.000752	
	N	163	163
**. Correlation is significant at the 0.01 level (2-tailed).			

The table 5 shows Pearson product moment correlation (r) =0.495; p=0.000752<0.01. In reference to 0.8-0.9 very strong positive; 0.6-0.7 strong positive; 0.5 moderate positive; 0.3-0.4 weak positive; 0.1-0.2 very weak positive; and -0.8-0.9 very strong negative; -0.6-0.7 strong negative; -0.5 moderate negative; -0.3-0.4 weak negative; -0.1-0.2 very weak negative this finding shows that there is a moderate positive correlation between capacity building exit strategy and sustainability of donor funded livelihood projects. This implies that as the level of capacity building increases sustainability of donor funded livelihood project increases. By p-value testing, 0.000752<0.01 and therefore the null hypothesis “There is no significant relationship between capacity building exit strategy and sustainability of donor funded livelihood projects in Kilifi County” was rejected and concluded that sustainability of donor funded livelihood projects in Kilifi County was significantly related to project capacity building exit strategy.

4.7 Regression analysis for capacity building exit strategies and sustainability of DFLPs

Regression analysis was carried out to obtain the model summary, model fit and coefficients as in indicated in the tables 6, 7 and 8 below.

Table 6: Regression model summary for capacity building exit strategy and sustainability of DFLPs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.495 ^a	0.245	0.240	0.48447

a. Predictors: (Constant), Capacity building exit strategy

The model in table 6 above shows that capacity building predicted 24.5% of sustainability of DFLPs however when adjusted predicted 24% sustainability of DFLPs. This implies that 75.5% is accounted by other factors. To find out

the fitness of the model (how capacity building predicts sustainability of DFLPs) ANOVA test was carried out to test the null hypothesis “The model for capacity building exit strategy predicting sustainability of DFLPs is not fit” and gave the results as indicated in the table 7 below.

Table 7: Test for Model fitness for predicting capacity building exit strategies and sustainability of DFLPs

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	12.243	1	12.243	52.162	.000752 ^b
Residual	37.788	161	.235		
Total	50.031	162			

a. Dependent Variable: Sustainability of donor funded livelihood projects

b. Predictors: (Constant), Capacity building exit strategy

The model fitness test as shown in table 7 above indicate F_(1,161) =52.162; p=0.000752<0.01. The null hypothesis was rejected and thus the model was fit. Therefore, capacity building predicted 24.5% of sustainability of DFLPs. This implies that capacity building alone could be used to predict sustainability of DFLPs.

To find out the extent to which capacity building influences sustainability of DFLPs, the mathematical model below was determined guided by the SPSS generated coefficients as shown table below.

$$Y = \beta_0 + \beta_1 X_1 + \epsilon; \text{ where } \epsilon \text{ is the random error}$$

Table 8: Mathematical model for capacity building exit strategies and sustainability of DFLPs

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.079	.357		3.020	.003
Capacity building exit strategy	.677	.094	.495	7.222	0.000752

a. Dependent Variable: Sustainability of donor funded livelihood projects

The table 8 show a mathematical model $Y = 1.079 + 0.677X_1 + \epsilon$ where; ϵ is error and X_1 is the capacity building exit strategy

This means that increase in capacity building by one (1) unit increases the sustainability by 0.677 units and reduction by one (1) unit reduces sustainability by 0.677 units. It follows that a decrease by a unit effort in capacity building will reduce sustainability by 0.495.

Given the p=0.000752<0.05 the null hypothesis “Sustainability of donor funded livelihood projects in Kilifi County is not significantly influenced by project capacity building exit strategy” therefore rejected. It was concluded that sustainability of donor funded livelihood projects in Kilifi County was significantly influenced by project capacity building exit strategy.

Further in the capacity building strategy the researcher sought to establish the discrete significance contributions of trainings, technological capacity and resource capacity independently. The findings were indicated as in the table 9 below.

Table 9: Training, Technological support, Resource capacities and Sustainability of DFLPs

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.400	.332		1.205	.230
Trainings	.568	.062	.566	9.191	.000
Technological support	.196	.055	.220	3.563	.000
Resource capacities	.026	.047	.034	.551	.583

- a. Dependent Variable: Sustainability of donor funded livelihood projects
- b. Predictors: (Constants), Trainings, Technological support, Resource capacities
- $F_{(3,159)} = 37.935$; $p = 0.000059 < 0.05$

The Table 9 shows that β value of training of 0.568 ($\beta_t = 0.568$; $p = 0.0000093 < 0.05$); β value of technological support of 0.196 ($\beta_{tech} = 0.196$; $p = 0.000485 < 0.05$) and β value of resource capacities of 0.026 ($\beta_r = 0.026$; $p = 0.583 > 0.05$). These imply that trainings and technological support had significant influence while resource capacities did not have significant influence on the sustainability.

The expanded mathematical model for capacity building exit strategy using the table above is as follows:

$Y = 0.4 + 0.568T + 0.196Tech + 0.026R$ where;

T=Trainings

Tech=Technological support

R=Resource capacities

Based on the test statistics ($F_{(3,159)} = 37.935$; $p = 0.000059 < 0.05$) on the model fitness was concluded that the model is fit.

5. Discussion

The findings clearly showed that capacity building exit strategies influenced sustainability of DFLPs in Kilifi County. This was descriptively shown by the mean perception of 3.795. Inferential analysis also show that capacity building and sustainability are positively and moderately correlated ($r = 0.495$). The regression analysis findings reveal a p-value of $0.000 < 0.05$ (rejection of the null hypothesis). Further, trainings ($p = 0.00 < 0.05$) and technological support ($p = 0.000 < 0.05$) had a significant influence on the sustainability. The farmers had received adequate trainings before project closure and were applying the knowledge and skills. The skills and knowledge acquired through the trainings enabled the farmers to make informed decisions and attain full participation in project operations. From the focus group discussions and in-depth interviews, it was established that the project had delivered a number of trainings ranging from groups dynamics and leadership, best agricultural practices, financial and entrepreneurial trainings, group saving and loaning, operation and maintenance trainings. This was viewed as adequate for the farmers. The respondents felt that the adequacy of skills enabled them to train other neighboring communities in such issues as land preparation, manuring and fertilizer application, post-harvest handling. When asked their opinion on the training offered prior to project closure, one of the members said,

"The trainings we received have made this area a hub for modern agriculture where our neighbors come to pick a few lessons, for example, Bombi project I the neighboring ward was started because of this project"

The project had also provided various capacity building programs to support transfer of skills such as exchange programmes, open days and field days.

These results concur with findings by Karanja (2014) while studying sustainability of income generating activities (IGAs) in Murang'a (in Kenya). In his findings, trainings had a positive influence on the sustainability of the IGAs. Consequently, the findings are in line with findings of Kats and Sara (1997) in rural water systems in Uganda, Bolivia and Honduras in which training and sustainability had a positive correlation. Trainings enabled use of new technologies which agrees with Cornish et al (2015) in which through capacity building the farmers in East India Plateau were able to change from conventional methods of farming and practice alternative cropping systems which improved their yields and returns.

On technological support the respondents of the questionnaires agreed that the required systems had been installed (scored second highest mean 4.33) but had mixed views about the functionality of the systems provided with more tending to the negative (disagreement) and mixed reaction on maintenance. From the FGDs and in-depth interviews it was established that functionality of the systems was adversely affected by the floods experienced in 2018 in which the irrigation pipes were swept away and six heavy duty Lister pumps were destroyed due to submergence.

Anguko (2018) also found that installation of appropriate infrastructure enhanced sustainability of poultry production projects in the Kilosa, Kongwa and Chamwino districts in Tanzania. In this study the respondents alluded that project installed the required system though were not functioning satisfactorily considering the effects of floods in 2018 and the great distances from source of water experienced in Uvumbuzi project.

However, in Kilifi County, resource capacity enhancement ($p = 0.583 > 0.05$) did not significantly contribute to sustainability though the respondents agreed to have capacities that contributed to sustainability. It was explained by the mixed reactions concerning the presence of external institutions to support the farmers and financial contributions towards the project operations after the projects closed. The farmers' concentration on their individual plots made it challenging for farmers to contribute to the common pool of resources for the respective projects. From the interviews and FGDs it was determined that apart from Kenya Red Cross (in Dodosa and Gandini projects) and Action Aid (in Uvumbuzi) the county government (department of agriculture), World vision, Food and Agriculture organization, office of the member of county assembly had supported in seed provision, infrastructure and capacity building. The respondents [farmers] had put in place mechanisms for monthly subscription to support the project activities. From the FGDs participation project

members had subscribed to varied monthly collections depending on the project.

6. Conclusion and Recommendations

6.1 Conclusions

In this study capacity building exit strategies (independent variable) was indicated by training, technological and resource capacities; while sustainability of donor funded livelihood projects, (dependent variable), was indicated by continued implementation, continued benefits and continued active participation.

The implication of the study was that project should focus most on ensuring that farmers or communities participate in all processes of planning and decision making so as to undertake to reach a given socio-economic goal by consciously analyzing the problems and outlining a course of action to resolve those problems while the government and implementing agency and private sector acting as facilitators.

The objective of the study sought to establish how capacity building exit strategies influenced sustainability of donor funded livelihood projects in Kilifi County. There was a positive moderate correlation between capacity building exit strategies and sustainability of donor funded livelihood projects. As much as capacity building had significant influence on the sustainability of such projects in Kilifi, this indicator was more pronounced in terms of trainings and technological support from the implementing agency. Resource capacities did not significantly contribute to sustainability though descriptive they seemed to contribute.

6.2 Contributions of the Study to Knowledge in Sustainability of Projects

The farmers had acquired various skills through the capacity building initiatives including the trainings, exchange programmes, field and open days supported by the donors through the implementing agencies. The challenges that the farmers faced were also an opportunity to learn how to solve issues locally ranging from conflict resolutions, complaints and feedback management, and local resource mobilization as supported by Bruner (1960) and Mayer (2004).

Each of the capacity building exit strategies has an incremental contribution to the dependent variable when other elements are constant. This implies that the policies of line ministries charged with responsibility of capacity building and providing conducive environment for such projects should be reviewed to ensure that resources are allocated in order to support capacity building initiatives in a cost sharing approach between the implementing agencies and the line departments. These approaches and programmes should ensure continuity of provision of trainings, technological support and strengthening resource capacities.

6.3 Recommendations for further studies

The study was delimited to the three donor funded livelihood projects in Magarini sub-county. To be able to

generalize these results across projects further studies can be carried out in other parts under diverse project environment. The studies can further increase the sample sizes. It was found that sustainability did not only depend on capacity building but there were other factors that influence sustainability. Further studies can investigate such factors as community ownership.

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