

## **Influence of Stakeholder Participation in Utilization of Monitoring and Evaluation Results on the Performance of Fish Farming Projects in Kenya**

Paul Kiumbe, Lydia Wambugu., Stephen Luketero

*Karatina University, Kenya*  
*Wambugu University of Nairobi, Kenya*  
*Luketero University of Nairobi, Kenya*  
*Corresponding Author: Paul Kiumbe*

---

**ABSTRACT:** This study, sought to establish the influence of stakeholder participation in utilization of Monitoring and Evaluation results on the performance of fish farming projects in Kenya, a case of Economic Fish farming projects Nyeri County. This study was guided by a pragmatic research paradigm for a mixed research method in a concurrent parallel research design. The study targeted the eight fish farming projects funded by the Economic Stimulus programme in Nyeri County. The target population was 1198 project participants. The sample size was 271 respondents comprising of 247 farmers, 4 project managers and 24 committee members obtained through purposive and stratified random sampling techniques. Structured questionnaires were administered to collect quantitative data while focus group discussions were conducted to collect qualitative data. The instruments were tested for validity and reliability through the content validity index (CVI=0.833) and the Cronbach Alpha's index ( $\alpha=0.795$ ) for reliability. Regression models were used to analyse quantitative data while qualitative data was analysed using content analysis. The study found out that the level of stakeholder participation in utilization of Monitoring and Evaluation results was average ( $M=3.43$ ). The study established a significant influence of stakeholder participation in utilization of M&E results ( $t=14.20$ ,  $p<0.05$ ) on performance of fish farming projects. The study recommends that fish farming projects should increase utilization of M&E results so as ensure better performance of fish farming projects. The study provides a stakeholder participation model for strengthening the performance of fish farming projects.

**Keywords:** Stakeholder Participation, Utilization of Monitoring and Evaluation results, Performance of Fish Farming Projects

---

Date of Submission: 05-09-2018

Date of acceptance: 21-09-2018

---

### **I. INTRODUCTION**

There has been an agreement that government funded projects have not been performing to the expectations of the relevant stakeholders (Singh, Gkritza, and Sinha, 2007). The sole reason why government commits public resources to improve the quality of life by uplifting the development measures in terms of employment, increased income and alleviation of food shortage. (Weisbrod and Forkenbrock, 2001).

According to Tana, Onyango, Ochola & Omolo (2012) monitoring and evaluation the performance of projects should be carried out by involving all stakeholders throughout the process of generating objectives, defining indicators and crafting local solutions. Further, studies prescribe that main aim should be to utilize M&E information collected by stakeholder not only to gauge whether project objectives have been met but also ascertain to what extent the results are utilized for the purposes of making critical decisions to improve project performance (Hinchliffe, 2005).

The Kenyan government injected Economic Stimulus Program (ESP) in Nyeri County among the beneficiaries in 2009. The ESP program supports projects in the education, health and sanitation, food production, environment, local government, industrialization and fishery sectors. In the fisheries sector the programme had four objectives namely, to create jobs, produce food and generate income enhance sustainability of fish farming at the constituency level.

To implement the programme, stakeholders formed Stimulus Project Management Committees (SPMCs) that were charged with the responsibility of managing the projects through a PM&E process. The SPMCs comprise of representatives from implementing respective line Ministries of Agriculture (Department of Fisheries) the Constituency Development Fund Committees (CDFC) and the fish farmers

(MOPND, 2012). The projects are therefore managed through a participatory empowering process to whereby stakeholders are involved in utilization of M&E results.

Scholars have investigated the utilization of M&E results in other stimulus projects. The findings are that there is need to involve stakeholders in greater way when monitoring and evaluating projects (GOU, 2008). This is possible when evaluation is participatory in nature. In most cases findings of M&E were sent directly to the government offices where the consultants felt accountable to. These studies have indicated that the evaluators should employ M&E utilization indicators as prescribed by the funding organization in this case the relevant government ministry.

Wanda (2013) conducted a study in Kiambu County on how pond fish farmers participate in the utilization of M&E results of their projects and how this influences economic performance. Thirty four respondents were purposively selected from one hundred and two (102) Economic Stimulus Package (ESP) participants in terms of project sites. Information was gathered through an interviews. Secondary data was further used to corroborate primary findings and was acquired from projects records. Both descriptive and inferential analysis was undertaken to find out whether project location and moderating variables had significant influence on project performance. The findings revealed that M&E through accessible record keeping is significant to the economic sustainability of the projects

Studies have been in order to evaluate how M&E results are utilized in project management. The findings are that there is need for active involvement by the participants if these initiatives will be effective. Farmers should write their own reports and bring them up-to-date them on a regular basis. Reports should be prepared primarily in local terms, even if it requires that they are converted into standard forms at the end (Hishamunda, 2001).

From the above, it is clear that different studies agree on the need for stakeholder participation in utilization of M&E results. The success or failure of fish farming development projects and national plans should not only be evaluated by evidence of how people are farming fish. Utilization of M&E results should be a major subject of the institutional context for fish farming development by tracing it through out all the stages of an intervention (Wetengere, 2009).

## **II. METHODOLOGY**

This study adopted a pragmatic research paradigm for a mixed research method in a concurrent parallel research design. The study targeted in 1198 project participants comprising of 1134 fish farmers, 8 project managers and 56 committee members in the eight fish farming projects funded by the ESP programme in Nyeri County and the sample size was calculated based on the formula by Yamane (1967) through both probability and non-probability sampling techniques. The sample size is 271 respondents comprising of 247 farmers, 8 project managers and 56 committee members. Structured questionnaires were administered to collect quantitative data from selected farmers, focus group discussions were conducted to collect qualitative data from the constituency project management committee members while interviews were administered to project managers while. The instruments were tested for validity and reliability through the content validity index (CVI=0.833) and the Cronbach Alpha's internal consistency index ( $\alpha=0.795$ ) for reliability. Regression analysis were used to analyse quantitative data while qualitative data was analysed using content analysis.

## **III. RESULTS AND DISCUSSIONS**

This section presents a descriptive analysis of performance of fish farming projects identified as the dependent variable. Specifically, it evaluates the means of the individual questionnaire responses, the mean of means of all items extricating the variable and the performance of fish farming projects. Performance of fish farming projects was identified as dependent on three PM&E components namely, agreed upon by Pollnac, Crawford and Gorospe (2001) to include; stakeholder participation in M&E during project design, stakeholder participation in M&E during project implementation, and stakeholder participation in utilization of M&E results.

In this study, the indicators of performance of fish farming projects were analyzed using number of jobs generated by the projects, amount of food produced in kilograms of fish, the income derived from the fish projects in Kenya shillings, the quality of fish produced, the time taken to complete the projects, and the sustainability of the projects as outlined in the desired outcomes of the ESP in fish farming projects. This is also in line with the criteria of performance of project as used by Gkritza, Labi, and Sinha (2006).

The observations were subjected to further descriptive analysis was conducted to determine the characteristics obtained from the respondents on performance of fish farming projects. Respondents were requested to state the degree to which they agreed with different statements defining the performance of fish farming projects. All the responses were recorded on a 5-point Likert scale. The results produced a measures of central tendency with the mean of 3.08 and standard deviation 1.41.

Focus group discussions and interviews revealed that the performance fish farming projects was good. This observation was clearly voiced by participants in the fish projects confirmed that SPMC members are elected to manage the project based on their performance in fish farming which in turn improves their performance further.

These findings are also in agreement with previous studies agree on the robust link between investment in ESP projects and improvement in the quality of life in an area by increasing income, job choices, activity choices, stability, and amenities (Singh, Gkritza, and Sinha, 2007) and (Weisbrod and Forkenbrock, 2001). This also concurs with the findings of (Kasekende, Brixova and Ndikumana, 2010) who reports that the performance of ESP projects in Sub-Saharan Africa reveal good performance. However, in these studies, information was gathered by project teams, using similar approaches adopted from the national level through technical assessments of government records. The data was then dispatched to the national team for where it was analyzed in tabular and regression analysis. They however did not investigate the primary beneficiaries of the programme such as the farmers (World Bank, 2010). The findings are almost similar to results from fish farms in Zimbabwe, Zambia, Nigeria, Malawi and Ghana, Roderick (2002) who studied and found out that majority of ESP fish farming projects reported performances of average and above.

The study investigated the level of stakeholder participation in utilization of M&E results and performance of fish farming projects by examining the questionnaire items investigating their levels. It specifically evaluates the means of the individual items, the mean of means, the mean of composite scores and the respondents' and the level as expressed in focus group discussions. The mean of the individual items examined the degree to which a proportion of respondents agreed with view expressed in the item. The mean of means and the mean of the aggregate scores revealed the extent to which the respondents agreed on the level participation in utilization of M&E results.

The observations were subjected to further descriptive analysis was conducted to determine the characteristics obtained from the respondents on stakeholder participation in utilization of M&E results. Respondents were requested to state the degree to which they agreed with different statements defining the level of stakeholder participation in utilization of M&E results of ESP fish farming projects. All the responses were recorded on a 5-point Likert scale. The results produced a measures of central tendency with the mean of 3.34 and standard deviation 1.49. Tthis finding is evidence that the respondents agreed that level of stakeholder participation in utilization of M&E results was average.

Focus group discussions and interviews revealed that level of participation during utilization of M&E results was average and was by enhanced stakeholders' participation in documentation of M&E results and participation in information sharing of M&E results. The participants felt that they were involved in the use of inspection reports of fish farming project and that the reports are used by stakeholders to improve the fish farming projects.

*"I keep my books well because finally am the one to use them. I know how to do it. It's not a must for the inspector to come. I will use it when it is the right time. If my records say that am not doing fine I know what to do." SPMC MEMBER*

*"Those who use the records for the projects do better. There are those who record only for the official purposes. The results in performance are opposite. In totality, my members now appreciate why they should use their records for the purposes of M&E." INTVIEWEE*

### **Relationship between the level Stakeholder Participation in Utilization of M&E results and Performance of Fish Farming**

The third objective was to investigate of the relationship between stakeholder participation in utilization of M&E results and performance of fish farming projects. The study first conducted a correlation analysis between the two variables. To start with the dimensions of stakeholder participation in utilization of M&E results were correlated with performance of fish farming projects. All the correlation were deemed significant at a set value of 0.05 the results are presented in table 1..

**Table 1: Correlation Analysis of Level of stakeholder participation in utilization of M&E results and performance of fish farming projects**

|   |                     | Stakeholder participation in utilization of M&E results | Performance of fish farming projects |
|---|---------------------|---|--------------------------------------|
| Stakeholder participation in utilization of M&E results | Pearson Correlation | 1   | .789**                               |
|   | Sig. (2-tailed)     |   | .000                                 |
| Performance of fish farming projects                    | N                   | 226   | 226                                  |
|   | Pearson Correlation | .789**  | 1                                    |
|   | Sig. (2-tailed)     | .000  |                                      |

\*\* . Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlations between the variables are shown in Table 4.14 show that the study found that stakeholder participation in utilization of M&E results was high and positively correlated with performance of fish farming projects ( $r = .789, p < .05$ ). This implies that an increase in the level of stakeholder participation in M&E during project design, lead to an increase in the performance of fish farming projects.

The study further tested the hypothesis that there is no significant relationship between the level of stakeholder participation in utilization of M&E results and performance of fish farming projects in Nyeri County. The null hypothesis was phrased as follows:

**H<sub>0</sub>**: There is no significant relationship between stakeholder participation in utilization of M&E results and performance of fish farming projects in Nyeri County. The model represented a value of R<sup>2</sup> which show the proportion of variation in dependent variable explained by the regression model. Table 2 show that the level of stakeholder participation in M&E during in utilization of results had a coefficient adjusted R<sup>2</sup>=0.236 this indicates that 23.6 % of the variation in performance of fish farming projects can be accounted for by the level of stakeholder participation in utilization of M&E results. The findings are as presented in Table 2.

**Table 2: Level of Stakeholder Participation in Utilization of M&E results and Performance of Fish Farming Projects**

| Model R | R Square          | Adjusted R Square | Std. Error of the Estimate | Change Statistics<br>R Square Change |
|---------|-------------------|-------------------|----------------------------|--------------------------------------|
| 1       | .789 <sup>a</sup> | .239              | .624                       | .239                                 |

a. Predictors: (Constant), Stakeholder participation in utilization of M&E results

b. Dependent Variable: Performance of fish farming projects

**Table 3: Coefficients of Stakeholder Participation in Utilization of M&E results and Performance of Fish Farming Projects**

| Model  | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | 95.0% Confidence Interval for B |             |
|--|-----------------------------|------------|---------------------------|--------|------|---------------------------------|-------------|
|  | B                           | Std. Error | Beta                      |        |      | Lower Bound                     | Upper Bound |
| (Constant)   | 1.997                       | .141       |                           | 14.204 | .000 | 1.720                           | 2.274       |
| <sup>1</sup> Stakeholder participation in utilization of M&E results | .345                        | .041       | .789                      | 8.388  | .000 | .264                            | .426        |

a. Dependent Variable: Performance of fish farming projects

The study further tested the hypothesis that there is a significant relationship between the level of stakeholder participation in M&E during project implementation and performance of fish farming projects in Nyeri County. The null hypothesis was phrased as follows:

**H<sub>0</sub>**: There is no significant relationship between stakeholder participation in M&E during project implementation and performance of fish farming projects in Nyeri County

This was tested using the model

**Model 1;**  $Y = 1.997 + 0.789 X + \epsilon$

Where;

Y= performance of fish farming projects

X= Level of stakeholder participation in utilization of M&E results

$\beta_0$  = the intercept (constant term)

$\beta_1$  = Regression coefficients shows the change in the value of Y for a unit change in X

$\epsilon$  = random error

This study found out that an increase in level of Stakeholder participation in Utilization of M&E results accounts for 23.6% of the level of performance of fish farming projects. The results illustrated that a unit increase in stakeholder participation in utilization of M&E results for increasing project performance by 0.789%. The relationship was found to be statistically significant with ( $t=14.20, p<0.05$ ). Therefore rejecting the null hypothesis and accepting the alternative hypothesis that the level of Stakeholder participation in utilization of M&E results significantly influences the performance of fish farming projects.

This observation was in line with the findings of Wanda (2013) that used secondary observation to compute the magnitude of the association between the utilization of M&E results and sustainability fish farming projects in Kiambu County. The study also further analysed to find out whether project location and intervening variables were of significant influence to sustainability of projects. Results showed that participation through accessible record keeping significant influences to the economic sustainability of the projects. M&E reports should be prepared primarily in local languages and expressions, but finally transformed into ordinary forms.

However the aforementioned studies only investigated one aspect of project performance namely, sustainability. The current study further investigated other aspects such as completion time, quality of project outputs, creation of jobs and amount of output.

#### **IV. CONCLUSION**

The study found that the level of stakeholder participation in utilization of M&E results was moderate. It had a strong positive linear relationship with project performance. It accounted for 78.9% of the projects performance. The study also found that it had a significant relationship with performance of fish farming projects. The study finally concluded that stakeholder participation in M&E during project implementation is a significant predictor of performance of fish farming projects.

#### **V. RECOMMEDATIONS**

Project stakeholders should be fully involved in the utilization of M&E results so that they own them and use them to improve performance of the projects. This recommendation is based on the finding that participation in utilization of M&E results had the strongest relationship with project performance. The finding of just an average level of utilization shows that M&E reports more likely remained as just documents with little or no chances of being utilized by the project stakeholders and consequently leading to lack of a sense of ownership. If the stakeholders own the M&E results they are more likely to improve project performance.

#### **REFERENCES**

- [1]. Allen, I.E. and Seaman, C.A. (2007), Likert Scales and Data Analyses. *Quality Progress*, 40, 64-65.
- [2]. Allen I. E., Jeff S., & Richard, G. (2007). *The extent and promise of blended education in the United States*. Massachusetts: Sloan City Publishers.
- [3]. Cernea, M. M. (Ed.). (1991). *Putting people first: Sociological variables in rural development*, New York: Oxford University Press.
- [4]. Cho, J. and Trent, A. (2006). Validity in Qualitative Research Revisited. *Qualitative Research*, 6 (3), 319 – 340 DOI: 10.1177/1468794106065006.
- [5]. Cook, B., & Kothari, U. (2001). The case for participation as tyranny. In B., Cook., & U., Kothari (Eds.), *Participation the new tyranny* (pp.1-15), London: Zed Books.
- [6]. Coupal, D.P. (2001). *Local Institutional Development: An Analytical Source Book with Cases*. West Hartford CT: Kumarian Press.
- [7]. Cronbach, J., & Richard, J (2004). My current thoughts on coefficient alpha and successor procedures. *Educational and Psychological Measurement*.
- [8]. FAO, (2012). *Fishstat plus: Universal software for fishery statistical time series*.Rome: FAO Fisheries Department, Fishery Information, Data and Statistics unit.
- [9]. FAO. (2014). Global fish farming production 1950-2010 database (Release date: March 2012). Electronic address: <http://www.fao.org/fishery/statistics/global-fish-farming-production/query/en>
- [10]. Feder, G., Just R., & Ziberlman, D., (2005). Adoption of agricultural innovations in development countries: Survey. *Economic development and cultural change*, 33 (2) 11-41
- [11]. Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics*. New Dehli; Sage Publishers.
- [12]. Government of Uganda / IFAD (2008). *Area-based agricultural modernization programme*. Internal Mid-Term Progress Review, July 2008.
- [13]. Gkritza, N., S. Labi and K. Sinha (2007) “Economic Development Effects of INDOT Transportation Projects”, FHWA/IN/JTRP-2006/37, SPR-2861, May 2007.
- [14]. Greene, M. (1988). *The dialectic of freedom*. New York and London. Teachers College Press.
- [15]. Halwart, M., & Gupta, M. (2004). *Culture of fish in rice fields*. FAO and The World Fish Center.
- [16]. Hinchliffe, S, (2001), “Indeterminacy in-decisions science, policy and politics in the BSE crisis” *Transactions of the Institute of British Geographers*, New Series 26 182–204 Google Scholar, Crossref, ISI.
- [17]. ILO (2012). *Key indicators of labour market* Retrieved on 22 December 2013 from International Monetary Fund (IMF) (2010). *World economic and financial surveys. World economic outlook April 2010: Rebalancing growth*. Apr. 2010. (Washington, D.C.). pp. xiv-xvii, 1-4, 5-9, 11-27, 43-69, 148, 155-162.

- [18]. Kasekende, L., Brixova, Z., & Ndikumana, L. (2010). Africa's counter-cyclical policy responses to the crisis. *Journal of globalization and development*, 1 (16), 6-10.
- [19]. Kothari, C. (2004). *Research methodology: Methods and techniques* (2<sup>nd</sup>ed.). New Age International Publishers: New Delhi.
- [20]. Maina, K. (2016) 'Statement by The United Nations Special Rapporteur on the Rights to Freedom of Peaceful Assembly and of Association to the 71st Session of the General Assembly,' 20 October, viewed 27 May 2017, <http://freeassembly.net/news/unga71-statement/>.
- [21]. Marsden, D. and Oakley P. (eds.) (2010) *Evaluating Social Development Projects*, Oxford: Oxfam.
- [22]. MOPND, (2012) National Fisheries Authority: <http://www.fisheries.gov.pg/Portals/0/PDF%20FUND%20GUIDELINE.pdf>
- [23]. Mwangi, H (2008). Fish farming in Kenya, Status Challenges and Opportunities, Directorate of Fish farming, Nairobi, Kenya.
- [24]. Ngugi, C. Bowman, J. and Omolo, B. (2007). A New Guide to Fish Farming in Kenya, Fish farming CRSP, Nairobi, Kenya.
- [25]. Ngugi, J. K, Kim V and Mwangi, G. (2014). Influence of Intellectual Capital on the Growth of Small and Medium Enterprises In Kenya". Unpublished PhD Thesis Jomo Kenyatta University of Agriculture and Technology.
- [26]. Oakley, P. (2008). *The monitoring and evaluation practices of participation in rural development*. Rome: FAO.
- [27]. Oakley, P., & Marsden, D. (2004). *Approaches to participation in development*. Geneva: International Labour Organisation (ILO).
- [28]. Omolo, A. (2010) *Policy proposals on citizen participation in devolved governance in Kenya*. Nairobi: The Institute for Social Accountability.
- [29]. Okali C. (2006). Linking livelihoods and gender analysis for achieving gender transformative change. FAO LSP WP 41. Access to Natural Resources Sub-Programme.
- [30]. Pollnac, R. B., Crawford, B. R., and Gorospe, M. L. G. (2001). Discovering factors that influence the success of Stakeholder-based marine protected areas in the Visayas, Philippines. *Ocean and Coastal Management* 44(11), 683-710.
- [31]. Polson, R.E. and Spencer, D.S.C. (1991). The technology adoption process in subsistence agriculture: the case of cassava in southwestern Nigeria. *Agricultural Systems*, 36, 65-78.
- [32]. Roderick, E. 2002. Food of kings now feeding the masses! *Fish Farming International*.
- [33]. Singh, L., Gkritza, N., and Sinha, K. (2007). *Economic Development Performance Measures and Rural Economic Development in Indiana*. West Lafayette: Purdue University.
- [34]. Sinha I, Wang YM, Philp R, Li CR, Yap WH, Wang Y (2007). Cyclin-dependent kinases control septin phosphorylation in *Candida albicans* hyphal development. *Dev Cell* 13(3):421-32
- [35]. Solomon, A. & Kerere, F. (2013), Assessment of the knowledge level of fishers and fish farmers in Lagos State, Nigeria. P.hd Thesis, Obafemi Awolowo University, Nigeria
- [36]. Wanda, E (2013). The Role of Participatory Monitoring and evaluation practices for Sustainable Backyard Fish farming (A Survey of Fish Projects in Kikuyu, Lari and Githunguri)
- [37]. Weisbrod, G. and Forkenbrock, D. J. (2001). *NCHRP Report 456: Guidebook for Assessing the Social and Economic Effects of Transportation Projects*. Washington, D.C.: National Academy Press.
- [38]. World Bank. (2010). *World Bank East Asia and Pacific economic update 2010. Emerging stronger from the crisis*. Vol. 1. (Washington, D.C.). pp. 3-13, 42 44, 48-50.

Paul K. Mburu. Influence of Stakeholder Participation in Utilization of Monitoring and Evaluation Results on the Performance of Fish Farming Projects in Kenya ." *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*. vol. 23 no. 09, 2018, pp.65-70.