THE EFFECTIVENESS OF TANZANIA SOCIAL ACTION FUND INTERVENTION IN HEALTH STATUS OF VULNERABLE COMMUNITIES IN MAKETE AND RUNGWE DISTRICTS, TANZANIA

Asheri M. Mwidege*

Herieth Rogath*

Abstract

Appreciation of health service costs is increasingly an obstacle for vulnerable communities to access services. However, little information based on appropriate methodological approach is available on how development intervention affects the health status of the recipient poor people. This study was conducted to assess the *ex-post* livelihood impact of Tanzania Social Action Fund intervention in Agriculture for vulnerable communities in Makete and Rungwe districts. Therefore this research examined the effectiveness of intervention on health status of the vulnerable communities in both districts. A sample of 354 recipients and non-recipients that included households, key informants and focus group discussions was collected from 21 villages. A quasi-experimental approach was used to collect cross-sectional data. Heckman selection two-stage estimation model was employed in data analysis. Results showed that participation had significant positive impact ($p<0.05$) on health status of recipients. Therefore, it was concluded that participation in assets created improved health of beneficiaries' though, HIV infected were the most negatively affected followed by able-bodied and elders. Thus it is recommended that the government should create assets creation through participation depending on the vulnerability of target groups.

Key words: Vulnerability, intervention, productive assets, food insecure, poor rural people, health status, Makete and Rungwe

* Mbeya University of Science and Technology

1.0 Introduction

Health is valued because of its utility in meeting needs and realizing goals and objectives. It is the state of complete physical, mental and social well-being and not merely the absence of diseases and infirmity (World health organization, 1958 cited by Cannon, 2008). Even though, inequalities in socio-economic status have been shown to be the sound indicators of health status and influence the lifestyle choices of people (Quingley *et al.*, 2006; Taylor & Blair-Stevens, 2002). However, the history of health services in Tanzania show that Tanzania family planning association (TFPA) scheme focused largely on family planning awareness and demand creation on training of family planning services existed even before independence (Price *et al.*, 2003). Consequently, after its independence in 1961 a policy of free medical services was established by the government (World Health Organization, 2002). Whereas, the United Republic of Tanzania national health policy (2003) aimed at ensuring that the services were freely available and accessible to all the people in the country. Moreover, the Government of Tanzania introduced the user fees scheme in 1993 due to its failure in provision of free health care services because of appreciation of treatment costs (Mtei and Mulligan, 2007). As a result community health fund (CHF) was introduced in 1996 to make health care affordable and available to the rural population, especially to the informal sector as a response to user fees. The scheme aimed at improving access to health care for the poor and vulnerable groups in rural areas in a form of pre-payment scheme through risky sharing (Mtei and Mulligan, 2007). Also, the National health insurance scheme covering all public sector employees and dependents was initiated to mitigate health services through pooling of resources [http://www.tgsh.or.tz].

Despite the government efforts to grant access to health services to the poor, exceptions and waiver schemes have failed to be successful throughout the country [http://www.tgsh.or.tz]. This failure is caused by the weakness of the health service policy for the informal sector and vulnerable poor to define who the poor are or how the poor should be assessed (Mubyazi, 2004). As a result, user fees led to a double exclusion for the poor who cannot afford at any level and CHF premiums (Laterveer *et al.*, 2004).

2.0 Statement of the problem

Both income and non income-poverty is still a challenge in Tanzania, particularly in rural areas where 38% of the population lives below the basic needs poverty line compared with 24% in urban areas (United Republic of Tanzania, 2010; Food and Agricultural Organization, 2008). The impact of HIV/AIDS epidemic is enormous in Tanzania, it is estimated that 1.4 million people are infected with HIV and ultimately 86,000 die each year. This has resulted in disrupted family structures with 1.3 million children orphaned or vulnerable (United Republic of Tanzania and civil society and the United States, 2011). Thus, high childhood mortality levels are found in areas that have high proportion of people engaged in agricultural activities than non-agricultural occupation (United Republic of Tanzania, 2006a).

Furthermore, HIV / AIDS among other diseases is a fatal disease, it reduces labour force and hence lowers agricultural productivity (United Republic of Tanzania, 2006b; 2001). Consequently, rural growth of the agricultural is about 4.5% contrary to national population growth rate of 2.9 as a result the rural per capita becomes small (United Republic of Tanzania, 2010). For this reason, the National Strategy for Growth and Reduction of Poverty aims at improving the quality of life and social well-being with particular focus on the poorest and most vulnerable groups (United Republic of Tanzania, 2005). On the other hand, the National Strategy for Growth and Reduction of Poverty II is also geared to make health services delivery affordable while reducing disparities of access between socio-economic groups (United Republic of Tanzania, 2010). Therefore, the National multi-sectoral HIV prevention strategy is set up to revitalize HIV prevention (United Republic of Tanzania, 2009).

In additional, the national social protection framework aims at addressing comprehensively structural and multi-causal vulnerabilities that can lead to persistent poverty and generalized insecurity (United Republic of Tanzania, 2008). Thus far, increased access to health services by the rural vulnerable people could be one of effective poverty reduction strategy (United Republic of Tanzania, 2006b). For this reason therefore, Tanzania Social Action Fund (TASAF) was introduced in 2000 aiming at socio-economic empowerment of the communities by creation of productive assets (World Bank, 2006). TASAF efforts was to reduce poverty of most vulnerable people by ensuring their protection and capabilities to engage in production so that they become

effective participants of the growth process (United Republic of Tanzania, 2008). However, little information based on appropriate methodological approaches on the effectiveness of intervention is available. This study therefore, examined the effectiveness of TASAF intervention in health of the vulnerable communities in Makete and Rungwe Districts.

3.0 Methodology

Decision of which an *ex-post* evaluation method to use depends on the nature of the intervention being evaluated. Most methods of impact assessment suffer from not having a perfect control and using incorrect model specification (Asian Development Bank, 2006; Barnes and Sebstad, 2000). However, randomization removes at least on average any systematic differences between the groups, yet it should be applied within a subset of equally eligible recipients (Baker, 2000). Although, quasi experimental approach was used, its principal disadvantage was selection bias through which individuals and geographic locations were targeted (Baker, 2000; 1999). Therefore, Heckman's (1979) two-stage estimation model was employed in data analysis so as to address the selection bias. Thus far, a modified DFID (1999) sustainable livelihood (SL) conceptual framework was adopted for intervention of livelihood analysis. The study employed a quasi-experimental approach which has also been used by (Grossman, 2005; Spath, 2004; Hulme, 2000; Baker, 2000; 1999; Power and Riddell, 1998). Then cross-sectional data were collected once at a given point of time (Baker, 2003; Stock and Watson, 2003; Wooldridge, 2001). The sample size based on precision rate of 5% and confidence level of 95% for an infinite population applied the traditional formula (Power and Riddell, 1998):

$$n = \frac{1.96^2 \left[p(-p)\right]}{SE^2} \quad \ldots\ldots (1)$$

was applied, whereas "n" is a sample size of 354 was calculated, SE is the tolerable standard error (0.05), and p = (0.6) and (1-p) = (0.4) were the proportion of projects participants and non-participants, respectively. The figure 1.96 reflects the choice of a 95% confidence interval and the margin error of $\pm 5\%$, was tolerable. Since the intervention covered the whole country for various vulnerable groups, thus multi-stage and stratified sampling approaches were used.

Stratified list of participants: food insecure (FI), community development investment (CDI), vulnerable groups (VGs) and service poor (SP) projects were used as the sampling frame. Thus far; 192 recipients, 108 non recipients and 54 key informants, focus group discussions and project coordinators were surveyed in 21 villages. Interview questionnaires, key informant's, focus group discussions checklists on TASAF projects' implementation were weighed against objectives in relation to the National Strategy for Growth and Reduction of Poverty and Millennium Development Goals to meet the research objectives. The availability and accessibility of health services, incidence of diseases (such as malaria, measles, diarrhoea, pneumonia and kwashiorkor) and water accessibility, HIV/AIDS awareness, source of information and control and free access to health services by vulnerable groups were used to measure health status of recipients. The statistical package for social sciences (SPSS) and STATA were used for data analysis.

During data analysis, selection estimator was based on the assumption that the participation in the project might be determined by some observed and unobservable factors (Untied, 2009). This was done to avoid erroneous conclusion of project intervention that might arise on a non-randomly selected sample (Poon and Chan, 2010; Kiiru, 2010). For this reason, Heckman's (1979) two-stage estimation model was used to analyze a stratified non-random sample. This was applied to discern primarily a particular subset of with and without intervention sample (Wooldridge, 2001). The first stage in the process was to estimate the selection equation so as to determine the probability of participation ($p*$) whereas the dependent qualitative variable equal to one when participated or otherwise:

$p* = w_i\gamma + u_i$, given that;

$$P_i = \begin{cases} 1 \quad if \quad p_i* > 0 \\ 0 \quad if \quad p_i* \leq 0 \end{cases} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2)$$

Where; w_i is a vector of factors known to influence participation, γ is a vector of coefficients and u_i is a disturbance term of unobserved factors that influence participation in the project. However, the second stage estimated the outcome equation of intervention variables:

$$y_i = \begin{cases} \beta x_i + \varepsilon_i & if \quad p_i^* > 0 \\ 0 & if \quad p_i^* \le 0 \end{cases} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \; (3)$$

Where; β is the vector coefficient, however a positive indicates the likelihood of impact with that variable (Hoetker, 2007) and x_i is a vector of observable factors that influence intervention outcome such as participation, location, beneficiary age, gender, marital status, education level, income, proximity to the market, foods market prices, projects created and target groups.

On the other hand, a sample selection bias variable, the inverse Mill's ratio (IMR) was derived in by incorporating both selection and outcome equations to yield:

$$Y = \beta x_i + \rho\sigma_\varepsilon \lambda_i(\alpha_u) + \varepsilon_i \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \; (4)$$

Where: Y= Health status; x_i = vector of observed variables; $\rho\sigma_\varepsilon$ = selection bias (lambda); $\lambda_i(\alpha_u)$ = selection bias correction factor (an IMR), ε_i = disturbance term. The Heckman's correction factor, a two-stage statistical approach offered a means of correcting for non-random selection bias. The correction factor provided a test for sample selection bias in health status. Therefore, health status (Y_{hs}) was analyzed using Heckman procedures explained earlier and specified according to its definitions (Table 1).

$$Y_{hs} = \beta_o + \beta_1 Partic + \beta_2 Locat + \beta_3 properatime + \beta_4 Femhhd + \beta_5 Benage + \beta_6 Mstatus$$

$$+ \beta_7 Educ + \beta_8 Benincom + \beta_9 Dhserv + \beta_{10} Fs + \beta_{11} Mktprice + \sum_{i=1}^{5} \beta_i\, projects +$$

$$\sum_{j=1}^{4} \beta_j\, recipients + \lambda_i(\alpha_u) + e_{hs} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \; (5)$$

Where; $\lambda_i(\alpha_u)$ is an Inverse Mills Ratio -selection bias correction factor;

Analysis expectation was: ($\beta_1 > 0$) participation has positive influence on health status, ($\beta_{2,4,6} > 0$) dummy variables under consideration have influence on health status, ($\beta_{3,5,7,8,10} > 0$) factors under consideration expected to influence positively health status, ($\beta_{9,11} < 0$) factors had

inverse relationship with health status, ($\beta_i > 0$) project(s) created enhanced recipients' food security positively and that ($\beta_j > 0$) target group(s) benefited through participation.

Table 1: Variables specified in health status analytical model

Variable	Definition
Partic (Participation =1 or otherwise)	Taking part in the intervention activities is a key indicator for respondents to have access to assets created to meet dietary requirements. A positive outcome was expected as participants earned their livelihoods to sustain their health status.
Location (Rungwe =1 or otherwise)	The site or position where an intervention is established to serve needy communities is determined by vulnerability of recipients. Participants can exploit intervention opportunities depending on the nature of projects established. As result a positive / negative outcome was expected
Benage (Beneficiary age) (Years)	The age is an important indicator for vulnerable people to participate in created assets. Thus, a positive/ negative correlation between age and health status was expected.
Mstatus (Marital status, married =1 or otherwise)	The indicator of being unmarried, married or formerly married determines the extent of health awareness, thus positive/negative coefficient was expected as a result of participation in created assets.
Benincome (Beneficiary income) (Tshs)	Income determines the ability of participants to access health health services through cost sharing. As income increases the household purchasing power of health services increases, thus a positive relationship between income and health status was expected.
Educ (Education level) (Number of years)	Better education of recipients is assumed to be a key indicator of health awareness and accessibility. It was expected that better educated participants had better health which has been achieved through participation
Femhhd (Female household head =1 or otherwise)	The sex of the household head was also an important factor for determinng the effects of participation in TASAF intervention. Female household head was compared to male household head as a result a positive or negative relationship between household heads and health status was expected since their participation is a trade off between family and community commitments
Mktprice (Market food prices) in Tshs	The price of goods or services determines recipients ability to access food to sustain their consumption pattern. The lower the market food prices increase the purchasing power of the households, thus a negative relationship betweem food prices and health status was expected.
Dhserv (Distance from health service centre in Km)	Length of the space between household residential area and health service centre is an indicator of recipients' to access health services. Thus, a negative relationship between distance and health status was expected
Recipients	A positive or negative relationship between recipients and health status was expected, as the ability of accessing health services is not homogeneous among vulnerable needy people.
Projects	Scheduled health service activities is assumed to be a solution to community's' health problems. A positive relationship between created assets and health status of recipients was expected
Properatime(Project operation time, years)	Period of involvement in a given sub-project from inception to the eventual survey time for each activity. This was expected to have a positive relationship between project duration and health status.
Health status (1= improved or otherwise)	Positive attitude towards life and acceptance of the responsibilities in meeting needs and realizing goals and objectives indicates the success of TASAF projects.

4.0 Results and discussion

4.1 Descriptive analysis of health status

4.1.1 Availability and accessibility of health services

Respondents were asked whether there is TASAF support on health services in their village. In view of this, respondents were also asked to state whether distance was a problem in accessing it by indicating a distance from the health service centre. Results (Table 2) showed that health services supported from TASAF ($p<0.05$) and the problem of accessing it ($p<0.01$) were both statistically significant. This suggests that only 4.7% of recipients' accessed health services supported through intervention, even though 54.2% of recipients reported that distance was not a problem in accessing health services contrary to 65.7% of non recipients. Thus 66.1% and 63% of participants and non participants respectively accessed health services within two to 10 kilometres contrary to five kilometres of the government goal of within a household reach to health service units (United Republic of Tanzania, 2005a; 2010). Accordingly, this confirms a negative and weak association with TASAF intervention.

Table 2: Health services availability and distance effect on its accessibility

	Beneficiaries(n=192)		Non beneficiaries(n=108)	
Does TASAF support health services?				
Response	**n**	**%**	**n**	**%**
Yes	9	4.7	0	0.0
No	183	95.3	108	100
Proble of a distance to access health service				
Yes	88	45.8	71	65.7
No	104	54.2	37	19.3
Distance(Km)				
Less than 2Km	63	32.8	36	33.3
2Km to 10Km	127	66.1	68	63.0
More than 10Km	2	1.0	4	3.7
Beneficiaries Vs non beneficiaries				
Health services: $\chi^2 = 5.219$, *df =1, p<0.05, Phi= 0.132; Accessibility problem:* $\chi^2 = 10.997$, *df =1, p<0.01, -Phi= 0.191*				

**Significant at p<0.05, **Significant at p<0.01*

4.1.2 Free access to health services by vulnerable groups

Moreover, respondents were asked to indicate whether there were vulnerable people who have free access of health services and whether TASAF improved health services or not. Survey

results (Table 3) showed that the source of health services improvements was statistically significant ($p<0.01$). This proposes that there were different sources of health services support other than TASAF. This was confirmed by almost 83.9% of participants and 100% of non participants that improvements could not be attributed to TASAF intervention and this concluded that intervention accounted for 6.6% of beneficiaries' health. Therefore, findings (Table 3) showed that there was a significant difference between vulnerable participants ((orphaned children and elders ($p<0.05$), widow/widowers ($p<0.01$)) and non participants to access free health services. Findings suggest that vulnerable participants' had less opportunity to access free health services than non participants. Probably, the difference between the two groups could be attributed by scarce resources to meet the demand. These findings clearly show that the NSGRP goal of providing free medical care by 2010 to eligible older has not been attained (United Republic of Tanzania, 2005).

Table 3: Proportions of vulnerable that had free access to health services

	Beneficiaries(n=192)		Non beneficiaries(n=108)	
Vulnerable groups	**mean**	**std dev.**	**mean**	**std dev.**
Orphaned children	0.380	0.486	0.550	0.661
Elders	0.130	0.335	0.250	0.471
Widows /widowers	0.110	0.311	0.250	0.438
HIV infected	0.700	0.459	0.590	0.496
Source of improvement				
TASAF	**n**	**%**	**n**	**%**
Yes	31	16.1	0	0
No	161	83.9	108	100
Total	192	100	108	100

Beneficiaries Vs non beneficiaries

Vulnerable groups: *Orphaned children:-t=2.098*; Elders: -t = 2.122*; Widows/widowers: -t =2.743**; and HIV infected: t=1.737;* ***Source of improvement:*** χ^2 *=19.779, df=1, p<0.01, Phi=0.258,*

**Significant at p<0.05, **Significant at p<0.01*

4.2 Quantitative estimation of health status

In order to avoid specification error and variance of estimates, model specification and heteroskedasticity were tested. Results showed that regression specification error (RAMSEY RESET) and Breusch-Pagan/Cook-Weisberg tests were both insignificant, meaning that the model had homogeneous variance with no specification error, respectively. Also, the coefficient

of the correction factor for selection bias, the inverse mill's ratio was statistically significant ($p<0.05$) suggesting that the model was appropriate and there was no selection bias (Table 4).

Among the projects surveyed (Table 4), water project was selected as a base in order to avoid perfect collinearity and for comparison purpose, however, both poultry and public works had significant positive influence ($p<0.05$) on health status of participants contrary to carpentry works ($p<0.01$) against the control project. Therefore, the health status of participants in poultry and public works were better-off than those in carpentry works and a base. Perhaps, participants obtained their balanced diet to meet dietary requirements by eating eggs and meat to enhance their health status; however carpentry recipients in particular spent much energy in carpentry works. Present findings concur with observations made by Ahmed (2009); Gue`ye (2009); International Development Agency (2008); Lombard and Coetzer (2007) and Ochieng (2002).

Moreover, survey findings (Table 4) showed that project operation period had a significant influence ($p<0.05$) on health status. This suggests that the time of operation since the inception of the project had a positive effect on outcome. Hitherto, findings showed that participation had significant positive effect ($p<0.05$) on health status of beneficiaries. Thus, the degree of involvement of recipients in established productive assets improved their health as they earned their livelihood compared to non-participants. However, location of projects also had significant positive outcome ($p<0.05$) on health status. This indicates that beneficiaries in Rungwe District were healthier than their counterparts in Makete District. Probably, the variation between locations was attributed by differences in resources and benefits accrued to participants caused by agro-ecological variation. Observations made by Bourne (2009) show that geographical location of residence of recipients is a significant predictor of health status.

Furthermore, findings (Table 4) showed that participation of elders ($p<0.05$), HIV infected ($p<0.01$) and able bodied ($p<0.01$) had a significant negative effect on their health status than Widowers. Meaning that HIV infected individuals were much likely to be affected by participation followed by able-bodied and elders. Maybe, this proposes that their contribution in productive assets kept them away from accessing other nutrition resources. Based on these

findings, Friel and Baker (2009) argue that human and poverty reduction can not be achieved without improving nutrition in an equitable way.

Table 4: Heckman's- two-stage selection model regression on health status (n =300)

Variable	Coef.	Std. Err.	z	P>|z|
Outcome equation				
Participation	0.071	0.033	2.170	0.030**
Rungwe (Location)	0.158	0.066	2.400	0.017**
Project operational period	0.039	0.019	2.080	0.037**
Female household head	0.027	0.035	0.750	0.451
Beneficiary age	-0.002	0.001	-2.060	0.039**
Marital status	-0.051	0.033	-1.550	0.120
Education level	-0.003	0.018	-0.140	0.888
Beneficiary income	-5.96e-07	3.44e-07	-1.730	0.083
Distance from health services	0.085	0.050	1.690	0.091*
Food security	0.028	0.017	1.670	0.095*
Market food prices	-0.031	0.032	-0.990	0.324
Public works	0.117	0.046	2.560	0.010***
Dairy cattle project	-0.047	0.060	-0.780	0.438
Environmental conservation project	-0.072	0.054	-1.330	0.182
Poultry project	0.148	0.066	2.230	0.026**
Carpentry project	-0.681	0.115	-5.940	0.000***
Constant	0.703	0.141	4.980	0.000***
Selection equation				
Elder	-0.866	0.401	-2.160	0.031**
HIV infected	-1.610	0.411	-3.920	0.000***
Able bodied	-1.014	0.386	-2.630	0.009***
Constant	1.374	0.374	3.670	0.000
Inverse Mills' Ratio				
Lambda	-0.214	0.092	-2.320	0.020**
Rho	-0.874			
Sigma	0.245			

*Significance levels: *, ** and *** are p<0.1, p<0.05 and p<0.01, respectively.*

5.0 Conclusions and recommendations

Based on the findings that participation had positive influence on health status of participants, therefore it is concluded that health status of participants in poultry and public works were better-off than those in carpentry works and water projects. Also, it was concluded that time of

operation since the inception of the project and the extent of involvement in established productive assets had positive influence on recipients' health status. Moreover, it was concluded that variation in location had effect on intervention outcomes of beneficiaries and that of all participants, HIV infected were the least beneficiaries of participation probably because of their health problems. Thus, it is recommended that the government should create assets through participation among vulnerable groups that have likelihood to sustain their health.

Reference

Asian Development Bank (2006). *Impact evaluation methodological and operational issues*. 39pp.

Ahmed, N. (2009). The sustainable livelihood approach to the development of fish Farming in rural Bangladesh. *Journal of international farm management*, 4(4).18pp.

Baker, M. J. (2003). *Business and management research*. How to complete your Research project successfully. Westburn publishers Ltd, Scotland. 403pp.

Baker, J. (2000). *Evaluating the impact of development projects on poverty*. A handbook for practitioners. Directions in Development. World Bank.Washington DC. 225pp.

Baker, J. (1999). *Evaluating the Poverty Impact of Projects*: A Handbook for Practitioners. World Bank. Washington DC. 85pp.

Barnes, C., and Sebstad, J. (2000). *Guideline for Microfinance Impact Assessments*. Discussion paper. 75pp.

Bourne, P. (2009). Good Health status of older and oldest elderly in Jamaica: Are there differences between rural and urban areas? *Open Geriatric Medicine Journal*, 2:18-27.

Canadian health impact assessment – CHIA, 1999. *Roles for the Health Practitioner*. 3:33pp.

Cannon, R. (2008). The social determinants of health. Information paper. South Australian Council of Social Services. 24pp.

Department for international Development (1999). *Sustainable livelihoods guidance sheets*.[*http://www.ennonline.net/pool/files/ife/dfid-sustainable- livelihood]*.

Food and Agricultural Organization, 2008. *Nutrition country profile*, Tanzania. Available at *ftp://ftp.fao.org/ag/agn/nutrition/ncp/tza.pdf*. 48pp.

Friel, S. and Baker, P. (2009). Equity, food security and health equity in the Asia Pacific region. *Asia Pacific journal of clinic nutrition*, 18(4):620-632.

Grossman, M. (2005). *The impact challenge*: Conducting impact assessments for the EMPRETEC programme. Oxford University. 21pp.

Gue'ye, E. (2009). *Small scale poultry production*: The Role of Networks in Information Dissemination to Family Poultry Farmers. *World's Poultry Science journal.* 65:115-124.

Heckman, J. (1979). Sample selection bias as a specification error. *Econometrica*, 47(1):153-161.

Hoetker, G. (2007). The use of Logit and Probit models in Strategic Management Research: Critical issues. *Strategic Management Journal*, 28:331-343.

Hulme, D. (2000). *Impact assessment methodologies for microfinance:* Theory, Experience and better practice. University of Manchester. 34pp.

International Development Agency (2008). *Rural roads*: Linking people to markets and services. 9pp.

Kiiru, J. (2010). *Remittances and poverty in Kenya*. http://erd.eui.eu/media/2010/Kiiru. 22pp.

Laterveer. L., Munga, M. and Schwerzel, P.(2004). Equity implications of health sector user fees in Tanzania. Analysis of literature and stakeholder views. Partners in international health. 131pp.

Lombard, P. and Coetzer, L.(2007). *The Estimation of the Impact of rural roads Investments on Socio economic Development*. 14pp.

Mtei, G. and Mulligan, J.(2007). Community health funds in Tanzania. Ifakara Health Research and Development Centre. 18pp.In: Community Health Fund best practice workshop. Dar es Salaam.

Mubyazi, G. M. (2004). Tanzania policy on health care fee waivers and exemptions in practice as compared with other developing countries: Evidence from recent local studies and international literature. *East African journal of public health*, 1(1):1-10.

Ochieng, G. (2002). *Socioeconomic impact of assessment of rural roads*. Methodology and questionnaires. 92pp.

Poon, W. and Chan, K. (2010). *Solicited and unsolicited credit ratings*: A global perspective. Asian Development Bank Institute. 26pp.

Power, R. and Riddell, M. (1998). *Quasi – experimental evaluation.* Evaluation and Data Development Strategy Policy. Canada. 40pp.

Price, N., Hawkins, K., and Ezekiel, M. (2003). Addressing the Reproductive Health needs and rights of young people since International Conference on population and development: The contribution of UNFPA and IPPF. Tanzania country evaluation report. 97pp.

Quingley R., Furu, P., Bond, B., and Bos, R. (2006). Health impact assessment international best practice principles. Series No. 5. Fargo, USA: International Association for Impact Assessment. 4pp.

Sindhar, D. (2008). Linkages between Nutrition, ill –health and education. Overcoming inequality: Why Government matters. UNESCO. 18pp.

Spath, B. (2004). *Current state of the art in Impact Assessment*: With special view on small Enterprise Development. Switzerland. 40pp.

Stock, J. H. and Watson, M. W. (2003). *Introduction to Econometrics*. Pearson International edition. Addison Wesley. Second Edition. 797pp.

Tanzania German Programme to Support Health: Impact of the CHF on access to health care for the poor. [http://www.tgsh.or.tz cite visited on 26/4/2012].

Taylor, L., and Blair-Stevens, C. (2002). Introducing Health Impact Assessment: Informing the decision – making process. Health development agency, London, UK. 23pp.

Untied, G. (2009). Impact Analysis and Counterfactuals in Practice: The case of Structural Funds Support for Enterprise. *In: improving evaluation methods, 6th conference of evaluation of cohesion policy*. Warsaw, Poland. 19pp.

United Republic of Tanzania and civil society and the United States (2011).Tanzania global health initiative strategy. 46pp.

United Republic of Tanzania (2010). *National Strategy for Growth and Reduction of Poverty* (NSGRP II). Ministry of Finance and Economic Affairs. Dar es Salaam.

184pp.

United Republic of Tanzania (2009). *National Multi-sectoral HIV PreventionSstrategy* 2009-2012.Towards Achieving Tanzania without HIV. Prime Minister's Office. Dar es Salaam, Tanzania. 63pp.

United Republic of Tanzania (2008). *National Social Protection Framework*. Ministry of Finance and Economic Affairs. Poverty Eradication and Empowerment Division. Dar es Salaam, Tanzania. 59pp.

United Republic of Tanzania (2006a). *Infant and Child Mortality Report*. Ministry of Planning, Economy and Empowerment. National Bureau of Statistics volume IX. 92pp.

United Republic of Tanzania (2006b). *Population, Reproductive Health and Development.* Population Planning Section. Ministry of Planning, Economy and Empowerment. Dar es Salaam, Tanzania. 72pp.

United Republic of Tanzania(2005). *National Strategy for Growth and Reduction of Poverty* (NSGRP). Vice Presidents'Office. Dar es Salaam. 80pp.

United Republic of Tanzania (2003). *National Health Policy*. Ministry of Health. Dar es Salaam, Tanzania.37pp.

United Republic of Tanzania (2000). *Poverty ReductionSstrategy Paper* (PRSP). Dar es Salaam. 63pp.

United Republic of Tanzania (2001). *Rural Development Strategy*.Vice Presidents' Office. Dar es Salaam,Tanzania. 84pp.

World Health Organization (2002). *WHO country cooperation strategy*: United Republic of Tanzania. Regional Office for Africa, Brazzavile. 43pp.

World Bank (2006). *The Tanzania Social Action Fund* (TASAF). Owning the process of measuring impact and achievement results. 4pp.

Wooldridge, J. M. (2001). *Econometric Analysis of Cross section and Panel Data*. MIT press. 753 pp.