

Socio-economic Status and Women Empowerment in Rural Tanzania: A Case of Onion Value-Chain in Simanjiro District

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Abstract

This paper explores the linkage between women socio-economic status and their empowerment. A total of 402 women completed a household questionnaire, which was supplemented with focus group discussions and key informant interviews. Principal Component Analysis (PCA), using SPSS version 16, was applied to the socio-economic data to obtain an index as a proxy for household socio-economic status. A composite women empowerment index was constructed to gauge women empowerment in different spheres, and F-test was used to compare the relationship between women's socio-economic status and their empowerment. It was found that many respondents were categorized into low to medium levels of empowerment. Relatively, high levels of empowerment were found in aspects of household economic consultation, freedom of movement and political autonomy. Asset ownership and housing conditions revealed that the poorest were below average in most of the items or services in which the better-off had access or possessed. The relationship between socio-economic status and women empowerment was statistically significant ($P < 0.05$), implying that efforts to improve women's wellbeing that focus on income and asset accumulation have the potential to empower women. Therefore the government, non-governmental organisations and development programmes espousing to empower women should improve their approach to ensure the poorest also gain opportunities to participate in onion value-chains and in other development interventions.

Keywords: women empowerment, socio-economic status, empowerment index, wellbeing

Background

Women participation in income generating activities (IGAs), especially in third world countries, has been a central focus on effort to empower women. For many years government and non-governmental organisations have encouraged women to undertake IGAs so as to gain income and assets of their own for supplementing their household income and improving their standard of living. Despite such efforts, it is argued that those economic and social development efforts have not benefitted women as much as men (Muro, 1994; Mbilinyi, 1992 cited by Makombe et al., 1999). Many studies have been conducted to assess the impact of women participation in IGAs on their empowerment. Some scholars have found positive impacts both on household outcomes such as income, wealth and asset accumulation; and on individual outcomes like employment, health and nutrition (Baden & Green, 1994

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cited by Parvin et al., 2005; Makombe, 2006; KIT et al., 2006; Shackleton et al., 2011). Nevertheless, negative impacts have also been reported (Hashemi et al., 1996; Mayoux, 1999; Mayoux, 2000).

Oakes and Rossi (2003) define socio-economic status as "... differential access to (realized and potential) desired resources." The authors further argue that resources fall into three distinct domains: (i) material endowments, e.g., earned income, investment income and real property; (ii) skills abilities and knowledge; and (iii) one's social networks. . Therefore, according to Oakes and Rossi (2003), in measuring socio-economic status there is a need to identify appropriate indicators for different domains of socio-economic status before aggregating them into one unit measure. Other authors, for example Krieger et al. (1997), argue that the term socio-economic status blurs the distinction between two aspects of socio-economic position, which are actual resources and status, and are hence confusing. In actual practice it is difficult to generate and measure all potential indicators in the three proposed domains. This paper adopts the Oakes and Rossi (2003) definition of socio-economic status, and uses the method proposed by Filmer and Pritchett (2001) whereby assets are used to generate wealth quintiles as proxy for household socio-economic status.

The literature on social and economic development has established that there are gender differences in how goods and services that result in the well-being of household members are valued (Katz et al., 2007). It is also hypothesized that the income that women earn from their productive activities increases status and power of women to acquire assets and services that are important to them. According to Morris (2005), there are four commonly used methods in measuring socio-economic status, whereby a single composite index is developed: proxy means test (Grosh & Baker, 1995 cited in INDEPTH Network, 2005). This method uses: (i) consumption or income per capita; and (ii) principal component analysis (Byaman & Cramer, 2001 cited in INDEPTH Network, 2005) which was popularised by Filmer and Pritchett (2001). The latter method uses assets to generate wealth quintiles as proxy for household socio-economic status. Other methods are those proposed by Ferguson et al. (2003) that uses permanent income; and by Oakes and Ross (2003) which focus on social norms whereby individuals generate socio-economic scores.

Several studies have used assets ownership, housing quality and sanitation as proxies for household socio-economic status (Mwageni et al., 2005; Nathan et al., 2005; Sikira et al., 2010). A change in socio-economic status provides direct and indirect benefits to individuals and households, including: improved living condition, protection during emergencies, and collateral for credit that can be used for investment or consumption (Doss et al., 2008). Many studies that have been conducted on exploring the linkage between socio-economic status and women empowerment have focused on access to and involvement in micro credits projects as a source of income generating activities. Scanty information exists on the linkage between women participation in agricultural-related activities and women empowerment. Furthermore, studies on the linkage between microcredit and empowerment are geographically skewed to South Asian countries, especially in Bangladesh, Pakistan and India. Experience from South Asian countries on the

impact of microfinance on women empowerment have been replicated in other parts of the world (Hunt & Kasynathan, 2001). It is imperative to find empirical evidence in other locations as Coles and Mitchel (2011) suggest that factors responsible for women empowerment are affected by location-specific socio-cultural contexts.

In Tanzania, as it is in many developing countries, efforts to empower women have focused on improving women status through education, training, access to health, and family planning services, as well as legal counselling and support. Many development programmes and projects espousing women empowerment emphasize on increasing women's access to income, participation in decision-making and control over assets and resources. For example, women economic empowerment through microfinance and micro credit services programmes has become a popular approach since the 1990s (Malhotra et al., 2002). Women participation in productive activities such as value-chain development activities is anticipated to result into a range of benefits to involved women, and may impact on their empowerment. Agriculture and its related activities have been identified as a national mainstay and an engine for economic growth in Tanzania. Thus, given that women are the majority of agricultural producers, it is important to understand the means to empower them. This study sought to examine the link between socio-economic status and women empowerment in onion value-chain development activities so as to draw lessons for government and non-governmental organisations involved in women empowerment in agricultural-related livelihoods.

2.0 Methodology

2.1 Description of the study area

The study was conducted in eight (8) villages of Simanjiro district located in Manyara Region in Tanzania. The area was selected as it has some wards that are famous in onion production in Northern Tanzania. The district has both government and non-governmental organisations promoting onion production and marketing using value-chain approach. There are many farmer groups organized for onion production and marketing in which women are the majority.

2.2 Data for the study

The study adopted a cross-sectional research design, whereby data were collected only once. Four wards and eight villages that had women participating in onion value-chain development activities were selected purposively. The sampling unit was an individual woman participating and those not participating in onion value-chain development activities. The interviewed women represented the households that were used to developing wealth quintiles as a proxy for household socio-economic status. Data were collected from October, 2011 to February, 2012. Simple random sampling technique was used to obtain respondents based on the sampling frame, which was the names of registered participants in different groups involved in onion value-chain development activities. Simple random sampling technique was used to obtain a comparative sample of respondents who were not participating in the value-chain development activities.

A household survey was conducted in all the eight villages selected. A structured questionnaire was used, and of the 402 respondents that participated in the study, 207 (51.2%) were participating in onion value-chain development activities, while 195 (48.5%) were non-participants. Qualitative data were collected using focused group discussions; and key informants interviews were conducted in the selected villages. The household survey captured socio-economic information, ownership of assets, involvement in onion value-chain and profitability analysis in the onion value-chain. The information was also used to construct a women empowerment index.

We also used focus group discussions (FGDs), in groups of six to eleven people, to collect data. The FGDs examined women's perceptions on issues related to benefits accrued from onion value-chains, changes in men's and women's roles in production and marketing of onions, ownership of assets, income and money accrued from onions, factors promoting or hindering women decision-making, men's attitude towards women's voice and leadership, household decision-making, women's freedom of movement, group networks and interactions, political activities and changes in livelihood.

2.2.1 Household socio-economic status index

Principal component analysis (PCA), using SPSS version 16, was applied to the socio-economic data to obtain an index as a proxy for household socio-economic status. PCA involves breaking down variables like assets (radio, solar panel, water pump, etc.), or access to services in a household (water, toilet) into categorical or interval variables (Mwagen et al., 2005, Nathan et al., 2005). In this study, household assets, housing conditions, water and sanitation were the main variables used for the construction of socio-economic status index. The variables were then processed to obtain weights and principal components. The results obtained from the first principal component (explaining the most variability) were used to develop an index based on the formula:

$$A_j = f_1 x (a_{j1} - a_1) / (S_1) + \dots + f_N x (a_{jN} - a_N) / (s_N)^1$$

Where:

A_j = Index developed

x = the variable

a_j = mean

f_j = scoring factor

a_j = the value for the asset or service

S_j = standard deviation

Based on this formula, indices of each household were calculated, and the resulting population was divided into wealth quintiles. Five indices were prepared and used as proxies for socio-economic status, in which the first quintile represented the poorest while the fifth quintile represented the most well-off. Two statistical measures of inequality were used: one was the poorest/well-off ratio, which compares the rates prevailing in the poorest and well-off quintiles. The second was a trend test (Chi-Squares) to determine the significance in the inequality.

¹Filmer and Pritchett, 1998 cited by Mwangeni et al., (2005).

2.2.2 Measurement of women empowerment

Women empowerment was measured by developing a women empowerment index (WEI). Then a cumulative/composite empowerment index (CEI) was constructed based on the WEIs from different spheres. Six indicators of women’s empowerment were measured, hence obtaining six indices: person autonomy (PAI), household decision-making (HDMI), economic contribution to household income (ECHI), economic domestic consultation (EDCI), freedom of movement (FMI), and political autonomy (PoAI). The respondents were requested to indicate their degree of involvement in issues related to each particular index. The scores obtained were used to develop the indices.

3.0 Results and Discussion

3.1 Asset ownership

During FGDs, which preceded household surveys, the respondents were requested to state the assets that connoted wealth status in their area. Only assets voted for by the majority were included in the survey questionnaire. The data in Table 1 present these findings whereby assets owned by respondents were disaggregated by their involvement in onion value-chain development activities. As per Table 1, there was difference in asset ownership, except for television sets and sewing machines, which were more owned by those not participating in onion value-chain activities. In all other assets women participating in onion value-chain activities had more assets than their counterparts.

Table 1: Assets Owned by Respondent Household

Assets Owned	PERCENT (N=402)		
	OVC	OVC	All
	Participant	non-participant	
Radio	84.4	73.6	79.1
Solar panel	7.3	1.0	4.3
Bicycle	53.2	31.4	42.6
Motor bike	16.1	5.7	11
Car/tractor/power tiller	1.5	2.1	1.8
Functioning Telephone/mobile	78.5	67.5	73.2
Television set (TV)	10.8	12.4	11.6
Sewing machine	4.9	7.2	6.0
Satellite dish	5.9	4.1	5.0
Foam mattress	54.1	40.7	47.6
Water pump	11.2	6.2	8.8
Land	74.1	57.2	65.9
Wooden bed and mattress	73.7	66.5	70.2
Goat	37.6	19.1	26.8
Cattle	18.1	13.4	15.8

3.1.1 Housing conditions

The study revealed that the majority of the respondents were living in the houses that they owned. The differences in quality of the houses were small; this was indicated by the fact that most of the households in the surveyed villages were made of cheap and locally available materials which indicated high prevalence of poverty in many rural areas of Tanzania. For example, 48.9% of the houses had thatch grass roofs and 70% of them had mud floors.

Table 2: Housing conditions

Category	PERCENT (N = 402)		All
	OVC Participant	OVC Non-participant	
House ownership			
Yes	75.5	68.0	71.9
No	24.5	32.0	28.1
Wall			
Unburned bricks/mud	72.2	76.4	74.2
Burnt brick	24.2	19.8	22.1
Cement brick	3.5	3.3	3.4
Tin	0.0	0.5	0.3
Roof			
Corrugated iron sheets	46.5	54.4	50.3
Thatch grass/mud	52.5	45.1	48.9
Tiles	0.5	0.5	0.5
Tin	0.5	0.0	0.3
Floor			
Soil/earth/sand	75.6	65.2	70.6
Cement	23.4	33.1	28.0
Ceramic tiles	1.0	1.7	1.3

3.1.2 Source of water and sanitation

The majority of respondents depended on unprotected open-well water sources, which might have ill health impacts. According to Table 2, there were clear differences in access to water, whereby women not participating in onion production activities were more likely to have more access to secure sources of water than their counterparts. This is probably due to improved socio-economic status and the benefit derived from their participation in the onion value-chain activities.

Table 3: Source of Water and Sanitation

Category	PERCENT (N = 402)		All
	OVC Participant	OVC Non-participant	
Source of water for drinking			
Open well/pond or river	78.9	47.9	63.8
Public tap	14.7	32.5	23.4
Water kiosk	4.4	14.4	9.3
Piped into yard house	1.0	3.6	2.3
Own piped into the household	1.0	1.5	1.3
Toilet facilities			
Traditional pit toilet	88.2	81.2	84.8
Own flush toilet	4.4	6.8	5.6
No toilet at the HH	2.9	5.8	4.3
Shared flush toilet	3.4	5.2	4.3
Ventilated improved pit (VIP)	1.0	1.0	1.0

3.1.3. Source of energy for cooking

As in most rural areas in Tanzania, the majority of the respondents depended on firewood for cooking. Although this has a negative impact on environment, it is the only available and affordable source of energy for most poor people in rural areas. The 2012 Tanzania household budget survey (HBS) estimated that about 73% of rural households depend on firewood as their main source of energy for cooking. Therefore, firewood consumption for cooking in Simanjiro District is above the national average (NBS, 2012). Kerosene was the second in importance as a source of energy, and was used by only 11.1% of the respondents (see Table 4).

Table 4: Source of Energy for Cooking

Category	PERCENT (N = 402)		
	OVC	OVC	All
	Participant	Non-participant	
Firewood	90.6	85.1	87.9
Kerosene	8.4	13.9	11.1
Electricity	0.5	0.5	0.5
Charcoal	0.5	0.5	0.5

3.2 Socio Economic Status, Ownership of Assets and Housing Conditions

Vyas and Kumaranayake (2006), cited by Sikira et al. (2010), report that in PCA variables with positive signs on the factor scores are related with high socio-economic status, while those with negative signs on factor scores are associated with lower socio-economic status. The proportion and distribution of households possessing a given asset or characteristic presented Table 5 show an interesting pattern. In general the poorest were below average in most of the items or services to which the better-off had access or possessed. For example, in terms of asset ownership, only 9.8% from the poorest category had radio compared to 20.1% in the well-off category. The same observation applied to motorcycles, mobile telephones, television sets, mattresses and ownership of animals, whereby the well-off were more likely to possess more assets than the other respondents.

A sharp contrast is observed to bicycle ownership where the least poor had more ownership than the well-off. A similar trend has also been reported by Masengi (2005). This might be due to the fact that in the study area, given its geographical position and remoteness, the bicycle is the most common form of transport used in most productive activities, hence being more important to the poor who do not have other means of transport. The chi-square (χ^2) statistics indicated a significant relationship ($P < 0.05$) in the distribution of assets between the poor and the well-off for radio, solar panel, bicycle, television, mattress, land, wooden bed, goat and cattle. This implies that there was an inequality in ownership of these assets between poor and well-off individuals.

Like asset ownership, housing conditions relate to the socio-economic status of a household. A similar trend, which is also consistent with the score on the index, was observed (See Table 5). Chi-square (χ^2) statistic indicated a significant relationship ($P < 0.05$) between ownership of a house, the number of sleeping rooms in a house,

whether a house's walls were made with burnt brick or mud, tiles roof and type of toilet facility owned. This implies that there was an inequality between poor and well-off individuals based on these housing conditions and access to services.

Table 5: Distribution of Asset and Housing Condition by Quintiles (%)

Variable	QUINTILES (Percent N=402)					Mean	1 st /5 th	(X ²) Sig.
	1 st	2 nd	3 rd	4 th	5 th			
If the household has....								
Radio	9.8	13.8	16.8	18.6	20.1	15.82	0.49	0.000
Solar panel	0.3	0.3	0.3	0.5	3.0	0.88	0.10	0.000
Bicycle	11.0	10.0	8.0	8.5	5.0	8.50	2.20	0.002
Motor bike	1.8	1.5	2.3	2.8	2.8	2.24	0.64	0.604
Car/Tractor/Power tiller	0.0	0.0	0.5	0.5	0.8	0.36	0.00	0.273
Telephone/mobile	13.0	14.0	14.0	16.3	15.8	14.62	0.82	0.153
Television set (TV)	1.5	1.5	2.3	2.0	4.3	2.32	0.35	0.044
Sewing machine	1.0	1.0	0.8	1.3	2.0	1.22	0.50	0.551
Satellite dish	0.5	0.3	1.0	1.3	2.0	1.02	0.25	0.106
Foam mattress	7.0	8.3	9.3	11.3	11.8	9.54	0.59	0.008
Water pump	1.8	1.8	1.3	1.5	2.5	1.78	0.72	0.718
Land	5.3	12.0	15.5	15.5	17.5	13.16	0.30	0.000
Wooden bed and mattress	11.5	13.3	14.8	15.0	15.5	14.02	0.74	0.026
Goat	1.0	1.5	2.5	8.0	15.5	5.70	0.06	0.000
Cattle	0.0	0.5	0.5	3.8	11.1	3.18	0.00	0.000
Own a house	10.8	15.6	13.6	15.3	16.6	14.38	0.65	0.000
1-2 Sleeping rooms	14.7	15.7	14.4	14.7	16.4	15.18	0.90	0.005
3-4 Sleeping rooms	2.7	3.0	2.0	7.7	6.7	4.42	0.40	0.004
5+ Sleeping rooms	0.0	0.0	0.3	0.7	0.7	0.34	0.00	0.696
Burnt bricks wall	2.7	2.7	3.7	5.2	5.7	4.00	0.47	0.050
Cement bricks wall	0.2	0.5	0.5	0.7	1.2	0.62	0.17	0.447
Un burnt brick wall	15.7	11.7	13.7	13.5	15.5	14.02	1.01	0.020
Thatch grass roof	13.2	8.9	9.2	8.9	8.7	9.78	1.52	0.014
Tin roof	0.0	0.2	0.0	0.0	0.0	0.04	0.00	0.410
Tiles roof	6.1	10.2	10.2	12.3	12.3	10.22	0.50	0.003
Ceramic floor	0.3	0.0	0.3	0.0	0.8	0.28	0.38	0.219
Cement floor	3.4	6.3	6.3	6.9	5.0	5.58	0.68	0.122
Soil/earth floor	15.9	15.1	13.0	14.0	12.7	14.14	1.25	0.220
If the household uses								
Charcoal	1.0	2.3	1.8	2.8	3.3	2.24	0.30	0.209
Kerosene	0.0	0.0	0.0	0.0	0.5	0.10	0.00	0.093
Electricity	0.0	0.0	0.0	0.3	0.3	0.12	0.00	0.551
If the household water source is								
Piped into house	0.0	0.0	0.3	0.5	0.5	0.26	0.00	0.409
Piped into yard house	0.3	0.5	0.5	0.5	0.5	0.46	0.60	0.977
Public tap use	4.5	6.0	4.8	4.5	3.5	4.66	1.29	0.493
Water kiosk	1.8	1.0	2.0	2.0	2.5	1.86	0.72	0.562
Open well source	13.1	12.3	12.1	12.8	13.6	12.78	0.96	0.894
If the household's toilet is...								
Flush toilet	1.0	0.3	1.0	1.5	1.8	1.12	0.56	0.287
Shared flush	0.3	1.3	1.0	1.0	0.8	0.88	0.38	0.593
Traditional pit	16.2	15.7	17.5	16.5	19.0	16.98	0.85	0.020
VIP	0.0	0.3	1.0	1.5	2.5	1.06	0.00	0.003
Bush /No toilet facilities	2.5	1.0	0.0	0.8	0.8	5.10	1.02	0.000

3.4 Extent of Women Empowerment

It is argued that, if women are empowered on one aspect of their life, empowerment in some other aspects does not necessarily follow (Malhotra et al., 2002; Mason, 2005; Alkire, 2008). In the study on which this paper is based, women were categorised into different levels of empowerment based on different aspects. Overall, many respondents were categorized into low to medium levels of empowerment. Relatively high levels of empowerment were found in aspects of household economic consultation, freedom of movement and political autonomy. Table 6 presents this finding, which is comparable with what Mason (2005) found: that women in Kumasi, Ghana, are powerful economically but are sexually and socially submissive to their husbands in the domestic arena, and do not actively engage in political processes. Inconsistent empowerment outcomes in different spheres have also been reported in different Asian countries (Jejeebhoy, 2000). A comparison between women participating in onion value-chain and non-participants reveals that women participating in onion value-chain development programme were more likely to be classified into high level of empowerment than their counterparts. The noted differences may be related to the impact of onion value-chain development activities on women empowerment.

Table 6: Extent of Women Empowerment

Variable	Percent (N=402)		
	Value-chain Participant	Non Value-chain Participant	All
Low empowerment	34.3	49.2	41.5
Medium empowerment	24.2	25.1	24.6
High empowerment	41.5	25.6	33.8

3.5 Socio-economic Status and Women Empowerment

It was hypothesized that women from high socio-economic status are more likely to be categorized into high levels of empowerment. To determine the effects of socio-economic status on women empowerment, the mean scores on socio-economic status index (wealth quintile) were compared with empowerment outcome in different aspects using one-way analysis of variance (ANOVA). Table 7 presents the findings. The F-test statistical results show significant association ($P < 0.05$) between socio-economic status and women empowerment. Thus, the hypothesis that women from low socio-economic statuses are more likely to be categorized into low levels of empowerment is confirmed.

Table 7: Socio-economic Status and Women Empowerment

Socio-economic status index	Mean Score	P
1 st Quintile	1.7625	0.019
2 nd Quintile	2.0988	
3 rd Quintile	1.9630	
4 th Quintile	2.0500	
5 th Quintile	1.7375	
Index Mean	1.9229	

Further analysis and comparison (Table 8) reveals that the relationship between socio-economic status and women empowerment were significant for some aspects only. The relationships were significant for aspects such as personal autonomy, domestic consultation and political autonomy; while for the rest of the aspects there was no significant relationship, implying that women empowerment was appreciated in only some spheres. This finding agrees with Malhotra et al., (2002) Mason, (2005) and Alkire (2008) who also argue that empowerment occurring in one aspect does not necessarily trickle down to all other aspects. The relationship between socio-economic status and household decision-making was not statistically significant. This connotes the lack or low levels of transformation in gender relation, which is an important component for empowerment.

Table 8: Socio-economic Status and Women Empowerment

Empowerment		Sum of Squares	DF	Mean Square	F	Sig.
Personal autonomy index	Between Groups	9.741	4	2.435	3.510	0.008
	Within Groups	275.415	397	0.694		
	Total	285.157	401			
Household decision making index	Between Groups	3.994	4	0.999	1.687	0.152
	Within Groups	234.914	397	0.592		
	Total	238.908	401			
Household economic contribution index	Between Groups	2.955	4	0.739	1.114	0.349
	Within Groups	263.244	397	0.663		
	Total	266.199	401			
Economic domestic consultation index	Between Groups	7.750	4	1.937	2.944	0.020
	Within Groups	261.228	397	0.658		
	Total	268.978	401			
Freedom of movement index	Between Groups	2.775	4	0.694	1.058	0.377
	Within Groups	260.163	397	0.655		
	Total	262.938	401			
Political autonomy index	Between Groups	10.912	4	2.728	3.716	0.006
	Within Groups	291.466	397	0.734		
	Total	302.378	401			

4. Conclusion

The results showed a significant relationship ($P < 0.001$) between socio-economic status and women empowerment, with particular focus on differentials between women participating in onion value-chain development activities versus those not participating. Moreover, there was a significant relationship ($P < 0.001$) between assets ownership among the poorest and most of the well-off. The association between socio-economic status and empowerment suggest that efforts to improve women wellbeing that focus on income and asset accumulation have the potential to empower women. Thus the government, non-governmental organisations and development programmes espousing to empower women should improve their approaches to ensure the poorest also gain opportunity to participate. Furthermore, programmes should use holistic approaches to women empowerment and not focusing on some few aspects only. Women empowerment does not occur in

isolation; transformation in gender relations is necessary. Therefore, pertinent cultural values in the community should be especially targeted for empowerment outcomes acquired by women to be valued and accepted at household and community levels. Such efforts may include more advocacies for women and human rights, participation in decision-making and involving men in women empowerment programmes.

References

- Alkire, S., (2008), "Concepts and Measures of Agency," OPHI Working Papers ophiwp010, University of Oxford: Queen Elizabeth House.
- David, S., (1993), "Health Expenditures and Household Budgets in Rural Liberia," *Health Transitions Reviews*, (3): 57–76.
- Doss, C., C. Grown & C. D. Deere, (2008), *Gender and Asset Ownership: A Guide to Collecting Individual-Level Data*, World Bank Policy Research Working Paper No. 4704.
- Hashemi, S.M., S.R. Schuler, & A. P. Riley, (1996), "Rural Credit Programmes and Women's Empowerment in Bangladesh," *World Development*, 24(4): 635–636
- Hunt, J. & N. Kasynathan, (2001), "Pathways to empowerment Reflections on microfinance and transformation in gender relations in South Asia," *Gender & Development*, 9(1): 42–52.
- INDEPTH Network (2005), *Measuring Health Equity in Small Areas: Findings from Demographic Surveillance System*, Ashgate Publishing Company, USA.
- Jejeebhoy, S.J., (2000), "Women's autonomy in rural India: Its dimensions, determinants and the influence of context," In H. Presser and G. Sen (eds.), *Women's Empowerment and Demographic Processes: Beyond Cairo*, New York: Oxford University Press.
- Katz, J., K.P. West Jr, E.K. Pradhan, S.C. Leclercq, S.K. Khatri & S. Ram, (2007), "The impact of a small steady stream of income for women on family health and economic well-being," *Global Public Health*, 2(1): 35–52.
- KIT, Faida MaLi & IIRR. (2006), *Chain Empowerment: Supporting African Farmers to Develop Markets*, Royal Tropical Institute, Amsterdam; Faida Market Link, Arusha; and International Institute of Rural Reconstruction, Nairobi.
- Lastarria, C.S., (2006), "Feminization of Agriculture: Trends and Driving Forces," Background Paper No 41367: 1–22.
- Makombe, A. I.M., (2006), "Women Entrepreneurship Development and Empowerment in Tanzania: The Case of SIDO/UNIDO – Supported Women Micro entrepreneurs in the Food Processing Sector," PhD Thesis, University of South Africa.
- Makombe, I. A. M., E. I. Temba & A. R. M. Kihombo, (1999), *Credit Schemes and Women's Empowerment for Poverty Alleviation: The Case of Tanga Region, Tanzania*, Research on Poverty Alleviation (REPOA), Report No. 99.1.
- Malhotra, A., S. R. Schuler & C. Boender, (2002), *Measuring Women Empowerment as a Variable in International Development*, Washington, DC: World Bank.

- Masengi, J., (2005), "Determinants of Adolescents' Sexual Behaviour in Dar Es Salaam City, Tanzania," Unpublished M.A. Thesis, Sokoine University of Agriculture.
- Mason, K. O., (2005), "Measuring Women's Empowerment: Learning from Cross-National Research," In *Measuring Empowerment: Cross-Disciplinary Perspectives*, edited by Deepa Narayan. The World Bank. Washington, D.C.
- Morris, S.S., (2005), *Epidemiology and the Study of Socio-economic Inequalities in Health*. In: *INDEPTH Network: Measuring Health Equity in Small Areas: Findings from Demographic Surveillance System*. Ashgate Publishing Company, USA.
- Mayoux, L., (1999), 'Questioning virtuous spirals: microfinance and women's empowerment in Africa', *Journal of International Development*, 11(7): 957-84.
- Mayoux, L., (2000), *Micro-finance and the Empowerment of Women: A review of the key issues*. ILO Social Finance Unit Working paper No. 23.
- Mwageni, E., Massanja, H., Juma, Z., Momburi, D., Mkilindi, Y., Mbuya, C., Kasale, H., Reid, G. and Savigny, D., (2005), *Socio-economic Status and Health Inequalities in Rural Tanzania: Evidence from Rufiji Demographic Surveillance System*. In: *Measuring Health Equity in Small Areas: Findings from Demographic Surveillance Systems*. INDEPTH Network, Ashgate Publishing House, England.
- Nathan, R., Armstrong-Schellenberg, J., Massanja, H., Sosthenes, C., Osuna, M., Mashinda, H., (2005), *Child Inequity in Rural Tanzania: Can the National Millennium Development Goals Include the Poorest?* In: *Measuring Health Equity in Small Areas: Findings from Demographic Surveillance Systems*. INDEPTH Network, Ashgate Publishing House, England.
- National Bureau of Statistics (NBS) (2012), *Household Budget Survey 2007*. President's Office Planning and Privatisation, Dar es Salaam.
- Oakes, J.M. and Ross, P.H., (2003), *The measurement of SES in health research: Current practice and steps towards a new approach*. *Social Science Medicine*, (56): 769-784.
- Parvin, G.A., Ahsan, R.S.M., Chowdhury M. R., (2005), *Women Empowerment Performance of Income Generating Activities Supported by Rural Women Employment Creation Project (RWECP): A Case Study in Dumuria Thana, Bangladesh*. *The Journal of Geo-Environment* (4): 47-62.
- Shackleton, S. Paumgarten, F. Kassa, H. Husselman, M. and Zida, M., (2011), "Opportunities for enhancing poor women's socio-economic empowerment in the value-chains of three African non-timber forest products (NTFPs)." *International Forestry Review*, 13(2):136-151.
- Sikira, A. N. Mwageni, E.A. and Kagosi, P.J., (2010), *Exploring the Link Between Socio-economic Status and Gender Based Violence: Lessons from Serengeti District, Tanzania*. *Rural Planning Journal*, 12(1):195-225.