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Analyzing rural livelihoods in Sub-Saharan Africa through the concept of life satisfaction: The case of Tanzania

Antonio Allegretti[1], George Mutalemwa[2], Tibuhinda Ngonzi[3]

Abstract
This paper analyzes local and global factors determining rural people's life satisfaction in Tanzania. The concept of life satisfaction is used to overcome the shortcomings of existing livelihood studies approaches such as a focus on local conditions at the expenses of (perception of) global factors, and conceptions of 'good livelihoods' superseding local people's own view of what is desirable. Using a cross-sectional survey (n=1,436) conducted in Tanzania, the life satisfaction variable is regressed on local and global factors and how these are perceived to affect local lives. The results provide opportunities for further debate on contemporary rural livelihoods in Africa.
Keywords: Livelihoods, life satisfaction, rural development, living conditions, Tanzania, Sub-Saharan Africa

Introduction

The study of rural economies and society of Sub-Saharan Africa has had a very long and interdisciplinary history that in the last couple of decades has often been framed around the concept of 'sustainable livelihoods'. Since the concept of Sustainable Livelihood Framework (SLF) was devised and defined with pioneering ideas put forward by Chambers and Conway (1992) and taken forward by other researchers (Ellis and Mdoe 2003; Scoones 1998, 2009), the whole set of economic, social, and cultural relations of rural sub-Saharan Africa has been fleshed out through the well-known five-capital/asset tool. This paper intends to contribute to the study and understanding of rural livelihoods in sub-Saharan Africa by using the concept of 'life satisfaction' to overcome some of

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[1] Lancaster University, UK
Email: a.allegretti@lancaster.ac.uk
[2] Saint Augustine University of Tanzania, Mwanza, Tanzania
Email: georgemutalemwa4@gmail.com
[3] Saint Augustine University of Tanzania, Mwanza, Tanzania
Email: ngonzi.tibuhinda@saut.ac.tz

the shortcomings of the livelihood framework in understanding rural dwellers' actual living conditions.

In a seminal paper, Scoones (2009) identified the 'normative assumptions' on what a 'good livelihood' ought to be like. The normative assumptions posed an obstacle to understanding people's own views and judgments, and this, according to Scoones, constituted one of the limitations, among others, of the SLF. These assumptions constituted the theoretical foundations of the analysis proposed, and were preparatory to the researcher's final judgment on how 'good' people's livelihoods are (Scoones 2009). This is particularly surprising considering the ideas of *capability* around people's own judgment of a good and fulfilling life put forward by Amartya Sen, which, as it has been argued, the SLF took inspiration from Scoones (1998). Instead, as a result of the pervasive presence of normative assumptions surrounding 'good livelihoods', little room has been left to people's own view on their actual living conditions.

The second pitfall identified by Scoones had to do with a marked attention to the 'small', through the analysis of capital assets available locally and how dwellers utilize these for their livelihoods. While the focus on the 'small' constituted an important innovation that enabled one to look at the actual dynamics occurring locally, the SLF, argued Scoones (2009), paid little attention to how local conditions are embedded in, often dependent on, wider national and global economic trends and markets. The outcome of the focus on the 'small' in the case of rural livelihood analysis in sub-Saharan Africa was a wealth of quantitative data collected locally, often in one or close-by locations, and economic analysis of economic portfolio diversification (Scoones 2009).

By using the 'life satisfaction' framework, this paper intends to overcome the aforementioned related limitations in assessing and analyzing rural livelihoods in sub-Saharan Africa, using Tanzania as a case country. The 'life satisfaction' analytical tool or device has itself a long history, particularly in the discipline of psychology, looking at how single individuals perceive their own life conditions, having been often associated to other related concepts such as the analysis of 'happiness' or assessments of 'quality of life' (Diener 2009; Diener and Ryan 2009; Deiner et al. 2013; Frey and Gallus 2013). The approach, however, has never been utilized to analyze people's living conditions in Sub-Saharan Africa with a view to exploring their local livelihoods.

More markedly sociological approaches have appeared with the analysis of how global circumstances and their effects are felt by individuals, and how this plays a major role in people's life satisfaction (Diener et al. 2000; Pekkurnaz

and Elitaz 2020; Tsai et al. 2012) alongside more 'local' conditions such as the ability to satisfy primary needs that is the main preoccupation of livelihood analysis. These studies often reach the conclusion that the more tangible elements of globalization at local level are *embraced* by people, the more 'satisfied' individuals are. This contrasts overall narratives in livelihood analyses, rooted in poverty debates, which, as some have argued (Bryceson 2000; Scoones 2009), often put expressions of globalization (e.g. urbanization, market 'penetration') in direct relations to detrimental effects on social cohesion and well-being.

This paper intends to propose an innovative approach to the analysis of rural people's livelihoods in Tanzania that overcome on the one hand the limitation rooted in the normative assumptions of 'good livelihood' and on the other the focus on the 'small'. This paper analyzes local material conditions as well as wider issues at national and global level, and how these determine people's own views on their living conditions through the 'life satisfaction' concept. The analysis gives centre stage to people's own perceptions and ideas as to how different conditions at different scales affect their living conditions rather than relying on normative assumptions and models of 'good livelihood'. Finally, the paper takes a wider geographical scope of analysis being based on a cross-regional available data set (see methodology section) differing from the majority of previous studies based on single or close-by sites of data collection, and enabling country-wide considerations and applications.

Current directions in livelihood analysis in SSA

Emerging literature on livelihoods in Sub-Saharan Africa offers a glimpse of novel directions in the study of local conditions vis-à-vis global trends of commoditization and penetration of global forces into rural realms. Cross-country analyses (Asfwaw et al. 2019), questions of mobility (Dzanku 2020) and rural-urban interactions (de Haan 2017) have appeared and unearthed the manifold local-global articulations to which rural livelihoods are subject. Spatial and temporal dimensions have been brought back into the analysis of rural livelihoods showing current rural livelihoods as the result of historical large-scale dynamics of access to natural resources (King 2011); policy shifts reshaping the landscape of access and ownership of land and other resources depict rural livelihoods as in transition (Snyder et al. 2019). Mazibuko (2013: 184) offers a sobering critique of SLF by pointing out how local people find

themselves dealing with situations that are 'created by international structures' and that result at times in constrains that are beyond local people and even national governments' ability to act upon.

While acting on the limitations posed by the focus on the 'small', the second element of Scoones, that is, the bias posed by normative judgements on 'good livelihoods', remains unresolved by these novel methodological approaches. When the wider political-economic context is accounted for, this is seen as a triggering factor of change that collide with fundamental *local* livelihoods grounded in traditional networks of exchange that mobilize local 'capitals' and regulate access to resources. Hence, as livelihoods become 'multi-local' (Djurfeldt 2015) insecurity and vulnerability penetrate rural domains, as it has been argued, for instance, in the case of the spreading of small-scale mining as anti-poverty measure in rural Africa (Hilson 2016).

Analyzing rural livelihoods through the prism of 'life satisfaction' offers a novel key of analysis to overcome both limitations. By bringing into the picture issues at national and global level alongside more local variables, the life satisfaction approach can shed more light on people's own priorities, enabling as well a policy-oriented analysis on the interventions that are more urgent and critical for targeted interventions in rural development.

Methodology

Data used in this study comes from a cross-sectional survey study conducted in the 2017 (n=1,436) involving people aged 18+ from rural and urban settings in five regions of Tanzania: Arusha, Bukoba, Mtwara, Mwanza and Tabora regions. Computer Assisted Personal Interviews (CAPI) were used to collect data. The survey presents a number of advantages, particularly in line with the rationale and objectives of this paper - it contains information collected in different regions as well as in different contexts (rural and urban), hence, it allows analyses of living conditions (i.e. livelihoods) that are cross-regional while capturing the transformations underway in the country and in the whole continent as to key rural-urban interactions. 'Urban' in reference to the information collected with the survey as well as analysis in this paper refers to the growing peri-urban tissue that expands on the outskirt of small and medium-sized towns in Tanzania rather than more significantly 'urban' contexts in large cities that have been the subject of an independent strand of literature on urban livelihoods (Potts 2013a, 2013b). The analysis based on this survey therefore

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will show a dynamic picture of rural livelihoods in both temporal and spatial terms, in line with recent livelihood literature mentioned above.

The respondents were asked to express their perception towards their experienced life satisfaction as an outcome of the livelihood variables they enjoy. The 'Satisfaction with life' main variable was derived as a summative index of four sub-variables as expressed in Table 1, where the score of '0' on the sum would mean highly dissatisfied, and '16' highly satisfied. This is treated as the dependent variable (Table 1). With respect to local living conditions, the selection of variables from the different areas or sections of the survey was done to cover as many areas and aspects of local lives and livelihoods in line with the broad approach taken by the SLF and its different 'capitals' – an approach that has been used repeatedly ever since the SLF was devised (Ansoms and McKay 2010; Bebbington 1999; Ellis 1999; King 2011). The variables (Table 1) include: 1) Technology, measured by ownership of mobility tools, communication tools, and access to information as forms of 'economic or financial capital'; 2) Poverty, measured by lack of food, water, medical care, personal income and fuel for energy – these are basic defining factors for life satisfaction in a rural setting in Tanzania, and a lack thereof can lead to poverty. The factors considered within this case sum draw from different forms of capital such as 'natural', 'economic', and 'human', 3) Prevalence of health problems negatively impacting on people's productivity (i.e. 'human' capital), 4) Household income level ('economic' capital), 5) education level ('human' capital), and 5) Relationships and support received (i.e. 'social' capital) (Scoones 1998: 7-8). In addition to the variables that refer to local living conditions, the 6) globally experienced issues such as pollution, corruption and globalization (i.e. how these are felt at local level) were considered to explore the role of global issues to respond to the limitations of the SLF that pertain to the marked focus on the 'small', as fleshed out above.

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Table 1: Variable selection

Main Variables		Sub-Categories (Questions asked)	Responses	Variable Description
Dependent Variable Satisfaction with life Scale (SWLS)		1. In most ways my life is close to my ideal. 2. The conditions of my life are excellent. 3. So far I have gotten the important things I want in life. 4. If I could live my life over, I would change almost nothing.	0. Strongly disagree 1. Disagree 2. Neither agree nor disagree 3. Agree 4. Strongly agree	The 'SWLS' Variable in the analysis quantified as a summative index of the four questions in column 2. Where the sum = 0 imply 'complete dissatisfied'. Where sum = 16 imply "very satisfied"
Independent Variables				
Technology	Whether a person owns technology, and have access to information (News)	1. Do you personally own a bicycle? 2. Do you personally own a motor vehicle or motorcycle? 3. Do you personally own a television? 4. Do you personally own a mobile phone? 5. Do you personally own a computer?	0. No 1. Yes	Questions on the respondent's current living conditions defined by assets ownership referred to as 'Technology' in the source data. A sum = 0 means 'Lowest' level of ownership A sum=5 means 'highest' level of ownership
	Access to information (News)	1. News from Radio 2. News from TV 3. News from newspaper 4. News from Internet	0. Less often 1. Once a month 2. Once a week 3. Daily	As a measure of respondents' exposure to information the overall sum score was computed. Sum = 0 means "lowest" access level. Sum=12 means highest access level
	Health problems	Does your health currently limit you in your everyday activities, for example in the household?	0. Not at all 1. Somewhat 2. Considerable	Responses transformed to read positive w.r.t the direction of the dependent variable
	Turn to Medical Doctors	I turn to medical doctors when I experience health problems	0. No 1. Yes	Source of medical care in case of health problems (formal)

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Poverty				
	Turn to practitioners	I turn to practitioners when I experience health problems	0. No 1. Yes	Source of medical care in case of health problems (informal)
	Food problems	During the last twelve months, how often, if ever, have you gone without enough food to eat? Never, once or twice or more frequently?	0. Never 1. Once or twice 2. More frequently	The responses on these variables were transformed to read positive w.r.t the direction of the dependent variable i.e, '0' for unfavourable (more frequently); '2' for favourable (never).
	Water	How often have you gone without enough clean water for home use?	0. Never 1. Once or twice 2. More frequently	
	Medical	How often have you gone without medicine or medical treatment when needed?	0. Never 1. Once or twice 2. More frequently	
	Energy	How often have you gone without enough fuel, firewood, charcoal or other type of energy to cook your food?	0. Never 1. Once or twice 2. More frequently	
	Personal income (Cash)	How often have you gone without cash income?	0. Never 1. Once or twice 2. More frequently	

Household income		What was the average household cash income last month from all sources and household members altogether?	0. Under 10.000 1. 10.000 to under 50.000 2. 50.000 to under 100.000 3. 100.000 to under 200.000 4. 200.000 to under 500.000 5. 500.000 to under 1.000.000 6. More than 1.000.000	
Education	Education level attained	What is the highest Level of Education that you have completed?	0. No formal schooling 1. Informal schooling (including koranic schooling) 2. Primary school completed 3. Secondary school completed 4. Higher Education like University or College completed	
Social Capital	Social support received OR Social support given	Are there persons or groups who provided you with any help or assistance in the past 12 months? By help, we think of help with money, food, clothing, housework, health care, transportation, work in the field, or any other type of help. Please answer "No" or "yes" to each of the following relations.	0. No 1. Yes	
Global Issues	Issues of pollution	What impact does pollution have on your satisfaction with life?	0. strong impact 1. Moderate impact 2. no impact	Mean score on 'pollution' computed
	Issues of corruption	What impact does corruption have on your satisfaction with life?	0. strong impact 1. Moderate	Mean score on 'corruption' computed Mean score on 'globalization' computed

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			impact 2. no impact	
	Issues of globalization	What impact does globalization have on your satisfaction with life?	0. strong impact 1. Moderate impact 2. no impact	
Place of Interview - **Urban or Rural**		Respondent's residence	1. Urban 2. Rural	The selection variable for Rural data analysis

Data analysis

SPSS v.20 was used to test the selected variables for reliability, where Cronbach's Alpha was computed (Table 2).

Table 2 Reliability test

Cronbach's Alpha	N of Items
.654	16

The Cronbach's Alpha value shows a weak consistency in the variables, however useful for further analysis. The analysis begins with a comparative input between urban and rural dwellers for the purpose of understanding whether there are differences in the satisfaction with life perceptions or not. A cross tabulation in Table 3 does not display a considerable difference in the satisfaction with life drivers among the urban and rural dwellers.

Table 3 Urban-Rural * Satisfaction with life (SWLS)

		Satisfaction with life (SWLS)					Total
		Disagree completely	Disagree	Neither agree nor disagree	Agree	Agree completely	
Urban -Rural	Rural	122 (16%)	461 (60%)	161 (21%)	25 (3%)	1 (almost 0%)	770
	Urban	107(15%)	434 (60.5%)	153 (21.3%)	23 (3.2%)	0 (0%)	717
Total		229	895	314	48	1	1487

The cross tabulation of SWLS and the place of interview (rural or urban) shows a very close similarity in the altitude towards satisfaction with life experience. This is explained by the close interaction existing between urban and rural life, resulting in the sharing of life styles. Yet, as will be shown below, the source of life satisfaction differs between the two domains, which justifies the further

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analysis. The outcome is a warrant for the generalization of the outcome of the next analysis stage, which looks at the impact of observed factors on life satisfaction among Tanzanians.

A linear regression of satisfaction with life (dependent variable) on the independent variables approach was adopted. The purpose was to determine the explanatory magnitude of the selected variables on the life satisfaction the people at the grassroots enjoy. For comparative purposes, the data for rural and urban dwellers were separately analysed. Table 4 is the output of SPSS 20, showing the regression coefficients with respect to the regressed variables.

Table 4 Regression coefficients selecting only cases for which Urban-Rural = Rural

Model	Unstd. Coeffs		Std.	t	Sig.
	B	Std. Error	Beta		
(Constant)	**.511**	.140		3.657	**.000**
Case Summation of ownership variables (Technology)	**.061**	.021	**.118**	2.947	**.003**
Exposure to Information	-.046	.035	-.056	-1.330	.184
Poverty (sum of food, water, med-care, energy and cash)	**.250**	.042	**.227**	5.909	**.000**
Household Income	**.045**	.020	**.083**	2.231	**.026**
Education	.019	.030	.024	.632	.527
Impact of health problems on activities of life	.020	.042	.018	.479	.632
Seeking Medical Doctors' help at time of need [reliability on formal line of health services]	.172	.113	.056	1.522	.128
Seeking Practitioners' help (traditional healers) at time of need [reliability on informal line of health services]	.026	.085	.011	.305	.761
Sum of global issues' impact (pollution, corruption and globalization)	-.017	.013	-.047	-1.318	.188
Social support received [social capital element]	**.136**	.053	**.096**	2.563	**.011**
Social support provided **[social capital element]**	.037	.032	.045	1.154	.249

a. Dependent Variable: SWLS summed over its sub-categories

The Alpha (α) or constant term coefficient is significant (the value of 0.000) (Table 5). This is an indication of the likelihood for the presence of other un-captured or tacit factors that explain satisfaction with life among the people.

Table 5 Summary of significant variable coefficients

	Coefficients	Significance level
Constant (α)	0.511	0.000
	Beta coefficients	
Technology	0.061	0.003
Poverty	0.250	0.000
Household Income	0.045	0.026
Social support received	0.136	0.011

Ranked on the basis of standardized beta coefficients, the factors that negate poverty (food, water, medical care, energy, and cash income) rank the highest (standardized beta of 0.227) in leading to satisfaction with life, followed by ownership of technology (0.118), then social support received (0.096), and house hold income (0.083) as last. The unstandardized regression coefficients of the independent or explanatory variables show the increase (if positive) or decrease (where negative) in the magnitude of the dependent variable per unit increase in each respective explanatory variable.

The 'Impact of global issues' (pollution, corruption and globalization) explanatory factor has a non-significant and negative coefficient (-0.017). The negativity is logical, as the issues considered have an adverse relationship with 'satisfaction with life' experience. However, the weight attached to them is contrary to what should be expected.

For comparative purposes, a regression involving urban cases in the database was also performed. Table 6 is an SPSS v20 output, where the bolded inputs indicate the regression variables and coefficients which are significant ($p < 0.05$).

Table 6 Regression coefficients selecting only cases for which Urban-Rural = Urban

Model	Un-std. Coeff		Std.	t	Sig.
	B	Std. Error	Beta		
(Constant)	**.781**	.193		4.040	**.000**
Case Summation of ownership variables (Technology)	**.046**	.023	**.093**	2.030	**.043**
Exposure to Information	.023	.033	.033	.704	.482
Case sum food, water, med-care, energy and cash	**.122**	.043	**.115**	2.824	**.005**
Household Income	.008	.022	.015	.366	.715
] Education	.025	.031	.035	.815	.415
impact of health problems on activities of life	-.074	.041	-.069	-1.780	.076
Turn to Medical Doctors at time of need	.051	.167	.012	.303	.762
Turn to Practitioners at time of need	.024	.092	.010	.262	.793
Sum of global issues' impact (pollution, corruption and globalization)	-.015	.015	-.040	-1.036	.301
Social support received	.077	.056	.055	1.388	.166
Social support provided	.011	.033	.014	.340	.734

a. Dependent Variable: Case summation on variables 1 to 5

b. Selecting only cases for which Urban-Rural = Urban

The significant variables in the model have dropped from four to two (Table 7), including technology ownership and poverty negation through food, water, energy, medical care and individual cash income.

Table 7 Summary of significant variable coefficients

	Coefficients	**Significance level**
Constant (α)	0.781	.000
	Beta coefficients	
Technology	0.046	0.043
Poverty	0.122	0.005

Discussion

A number of considerations can be drawn from the analysis of livelihoods in Tanzania through the 'life satisfaction' approach. The analysis of the independent variables against life satisfaction (dependent variable) in the rural context shows that the satisfaction of primary needs is an essential driver of life satisfaction overall, along with the ownership of non-primary goods (e.g. phones, motorbikes, computers). The relationship between life satisfaction and the other two significant variables, that is, household income and social support, are indicative of the different sources for meeting primary and non-primary needs, that is, remittances within the household which make up the overall household income, but also external support received. This confirms the acknowledgment that rural households in Africa and across the developing world are and have been part and parcel of wider dynamics and trends that make the rural domain an 'assemblage' (Hebinck et al. 2018).

Data disaggregation (rural and urban) furthers our understanding of livelihoods in Tanzania through the proxy of life satisfaction. The disaggregated data show that there are transformations underway within the evolving geographical and spatial landscape of Tanzania, away from large cities which were not the focus of this paper. As pointed out in the methodology in this paper, the 'urban' category does not refer to large urban cities but rather to a new peri-urban, often poorly planned, hybrid space where the physical, social, and cultural aspects of the rural-urban divide merge and evolve in unpredictable ways. Rural-urban disaggregated data analysis allows capturing the state of affairs of contemporary livelihoods in the context of Sub-Saharan Africa not as a static picture. Meeting primary needs as well as ownership of non-primary goods retain their importance away from a purely rural context, but household income and social support received, i.e. the other two significant variables in the rural context, lose their significance in the 'urban' context according to people's perception. This consideration validates debates and conceptual approaches for the study of rural livelihoods in Africa that focus on livelihood 'pathways' (Ansoms and McKay 2010) and trajectories (de Haan and Zoomers 2005) that account for dynamic spatio-temporal conditions as foundational of contemporary (rural) livelihoods (King 2011), and opens up space for further debate as to what makes a 'good livelihood' for people as the 'rural' domain evolves.

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The perception of global issues analyzed as dependent variables in terms of how these determine life satisfaction show no significant causal relations. This may be counterintuitive in light of shared understanding and extensive evidence of the pervasive influence (often framed in negative terms) that global issues have on rural communities and development, for instance in the form of partnerships between smallholders and large-scale private agri-business projects (Bergius et al. 2018; Koopman 2012; Thompson 2012), or mining-related development (Hilson 2011; 2016). A non-significant relationship between perception of global issues and life satisfaction can prompt some methodological considerations when it comes to studying awareness and experiences of global issues at local level. The reliability and appropriateness of quantitative surveys could possibly be an underlying factor that has led to a non-significant relationship; more qualitative approaches may be better suited to capture the ways in which rural dwellers experience and express their relationships with global issues. These experiences may not be straightforward to be captured through single scale questions and may require longer periods of fieldwork for instance of ethnographic nature.

Conclusion

This paper has intended to provide a contribution to novel approaches in the field of livelihood studies in Sub-Saharan Africa by using the concept of 'life satisfaction'. The objective was to address some of the weaknesses of livelihood studies, especially the marked focus on the 'small' and the question of normative assumptions that create superimposed models of 'good livelihoods' without enough room for people's own voices as to what constitute 'good livelihoods' to them (Scoones 2009).

The results obtained provide more opportunities for further analysis than clear-cut answers. The analysis confirms that livelihoods are in a state of transition, particularly as the rural character and lifestyle of African dwellers change in material landscape and meaning. As these change, the paper shows that understanding what people value and aspire to becomes more complex. What emerges as essential is to devise new tools to better comprehend how global issues affect rural people's living conditions, but also, importantly, their ideas of how this occurs, through the analysis of their lived experiences.

With policies in Tanzania as in much of Africa envisioning growing synergies with private stakeholders, rural dwellers are often referred to as new

'entrepreneurs' who are to be *integrated* into global markets and value chains (Green 2015). Gaining a better understanding of how rural peoples deal with this new vision and conceive of their role in the national socio-economic state of affairs is essential for their welfare.

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