

Impact Of Tasaf Grants on Household Income for Economic Growth: A Case of Hai District in Kilimanjaro Region in Tanzania

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ABSTRACT

This study examined the impact of TASAF grants on the household income for economic growth: A case of Hai District, Kilimanjaro Region in Tanzania. The study was guided by three specific objectives each with one null hypothesis. The first specific objective was to examine whether there was cointegration between the two variables of TASAF grants and household income. The second specific objective was to examine whether TASAF grants can granger cause household income and the last specific objective was to assess whether household income can granger cause TASAF grants. The study was guided by the social democratic theory of poverty as it was advanced by Piero Sraffa who argued that class struggles went beyond production spheres and therefore restricting poverty explanations to productions. The theory was supported by notable scholars including but not limited to Magombeyi and Odhiambo, 2016, Manjoro, 2017, Gichane, 2020 just to mention a few. After reviewing the literature it was found that most of the studies used regression analysis and some descriptive analysis and none of them used granger causality. Therefore the author of this study found there was a knowledge gap that required to be filled by conducting a study using the granger causality test. Mwaitete, 2018 argued that unlike regression that focuses on the relationship among variables granger causality goes beyond and focuses on the impact of the variables under investigation (Mwaitete, 2018). Conceptually TASAF grants was set as an independent variable (X) and Household Income was set as dependent variable (Y). Adora, 2021 stated that a variable X is causal to variable Y if X is the cause of Y or Y is the cause of X or both (Adora, 2021). Moreover the granger defined the causality relationship based on two principles, one the cause happens prior to its effect and two, the cause has unique information about the future values of its effect (Robert, 2020).

The study opted to causal research design which enabled the researcher to test the hypotheses. The study was guided by three hypotheses first, there is no co-integration between TASAF grants and household income, second, TASAF grants cannot granger cause household income and lastly household income cannot granger cause TASAF grants. Quantitative research approach was adopted in this study since the results obtained were generalized to the entire population. The study used annual secondary data obtained from the office of Hai District and website of the National Bureau of Statistics. All data were measured in Tanzania shillings. TASAF grants annual data were obtained from the office of Hai district (DEDHai, 2022), while household income was computed by the researcher based on the data of regional GDP per capita, number of households and population projections retrieved from the website of the National Bureau of Statistics (NBS, 2019). Number of Households and Population Projections were computed by NBS based on 2002 National Population and Housing Census. A pilot study was conducted to assess if the data were fit for the study and the results indicated that data were not fit for the study and they need to be transformed. Two stages of transformation were performed by using excel computer software, first logarithm was applied but data were not fit and lastly first difference was applied and data were found to fit the study. The transformed data were analysed by using STATA computer software version 11.2R. Diagnostic tests were conducted and the results indicated that data were valid and reliable to predict and forecast the outcome of the study. Decision criterion of all tests was made based on the 5% level of alpha.

The study was guided by three specific objectives each with one null hypothesis. The first specific objective was to examine whether there is co-integration between TASAF grants and household income. A null hypothesis was set and stated that there is no cointegration between TASAF grants and household income. Johansen tests for cointegration was carried out on this hypothesis. Johansen tests for cointegration is used to test integrating relationship between several non-stationery time series data. The results of the test indicated that TASAF grants and Household income were cointegrated. The results were significant at 5% level of alpha and was presented in table 4.4. Moreover the analytical review conducted on the trend of the data of TASAF Grants and Household income indicated that the two variables have long run association and were moving together in a positive direction. The result was presented graphically in table 4.11.

Moreover, the second and third specific objectives of the study were carried out by using Granger Causality Test. Granger Causality Test is a technique for determining whether one time series is helpful in forecasting another. It can decide if there is causality relationship between variables. The results of performing the granger causality Wald test indicated that TASAF grants can granger cause household income and the results were significant at 5% level of alpha. The results were presented in table 4.5. Furthermore, the third and last specific objective of the study was to assess whether household income can granger cause TASAF grants. The study was guided by a null hypothesis which stated that household income cannot granger cause TASAF grants. A granger causality Wald test was performed and the results revealed that at 5% level of alpha, household income cannot granger cause TASAF grants. The results were presented in table 4.5.

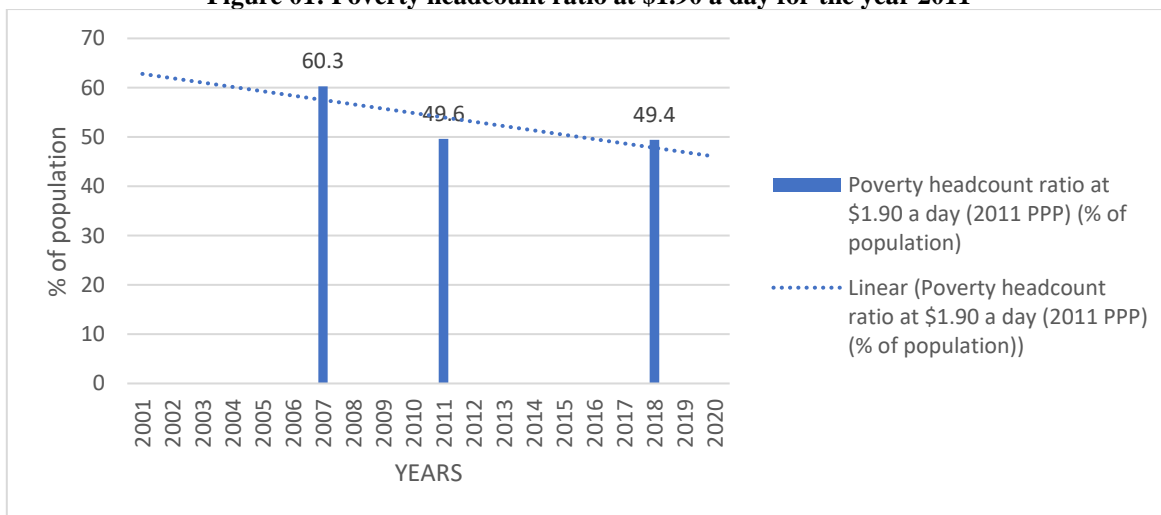
The results in table 4.5 show that TASAF grants can granger cause household income at 5% level of significant. The results mean that TASAF grants can be used to predict household income of the people of Hai and Tanzania at large. The two variables are cointegrated based on Johansen tests for co-integration as indicated in table 4.4, the value of t-statistics which is 16.1058 is greater than the critical value which is 15.41 at 5% level of significance therefore the null hypothesis which state that there is no co-integration between TASAF grants and Household income was rejected. The predicted model was assessed using Shapiro Wilk W test, test for heteroskedasticity, and test for serial correlation and found to be a valid model for prediction.

The study recommends the need of enhancing collaboration of the Government of Tanzania with other national and international stakeholders interested in the development of people in the local communities initiatives through TASAF grants financing framework on the programme implementation to ensure sustainability in Tanzania and worldwide.

1.0 INTRODUCTION

Household defined by the U.S. Census Bureau as all the people who occupy a single housing unit, regardless of their relationship to one another (Mather, 2020). A household consists of one or several persons who live in the same dwelling and share meals. The household is the basic unit of analysis in many social, microeconomic and government models, and is important to economics and inheritance (Siqueira, 2021). Household income is the most important factor worldwide that influences personal consumption expenditure. On the other hand, rich people usually spend more than the poor people do, rich people can afford products that cannot be afforded by the poor people (Shayan, 2022). Factors that contribute to variations in household incomes across the world includes but not limited to region of residence, family size, age of the reference person, education of the head, number of income earners and age structure of the family members within a household (Abbas, 2022). On the other hand, household in developing countries have a long time been perceived to receive their income predominantly from one or a few economic activities. Evidence abounds, however that households derive their household income from multiple sources (Stewart., 2021). Haggblade et al., 2020 reports that agriculture constitutes a significant proportion of rural households’ income generating activities and rural employment, and income from this source accounts for 35 to 50 percent of total rural household income across the development countries (Haggblade, 2020). The issue of poverty draws the attention of academia, policy practitioners, and politicians around the globe. A plethora of poverty alleviation policies, programs, and activities have been initiated and implemented. Nonetheless, public issues related to poverty still abound, from high poverty rates; greater poverty severity and depth; wider income disparity between rural and urban areas; gender related poverty; limited access to public services among the poor; sanitation; to clean water access (Minkyu, 2021). During the past decade, Tanzania recorded sustained economic growth and a persistent decline in poverty, according to a new World Bank poverty analysis. The 2019 Tanzania Mainland Poverty Assessment notes that poverty decreased by eight percentage points in 10 years, down from 34.4% in 2007 to 26.4% in 2018. Country poverty assessments provide information on the causes and impact of poverty in a country, and examine how public policies, expenditures and institutions affect poor citizens (Mwakalila, 2022). Regardless of Government effort to reduce poverty, initiative revealed there is very little change (decrease) which makes it hard to recognize. From 2007 to 2011 within five years the rate of decrease of poverty headcount ratio in Tanzania based on 2011 Purchasing Power Parity was 10.7% while from 2011 to 2018 the rate of decrease was 0.2% which is very insignificance (Colin, 2021). See figure 1 below;

Figure 01: Poverty headcount ratio at \$1.90 a day for the year 2011



Source: UNESCO institute for Statistics (UIS), 2022

There are several challenges that reduce the efficiency and effectiveness of poverty reduction policies in Tanzania. They includes but not limited to high vulnerability; for every four Tanzanians who moved out of poverty, three fell into it. A large number of non-poor living just above the poverty line are at risk of slipping below it (WB, 2019). Other challenges were mentioned by NBS, 2017, 2019 and Mafie, 2021 reports respectively. They included low agricultural growth rate, high inflation, high inequality and high population growth rate (Mafie, 2021). The Government of Tanzania in the year 2000 initiated TASAF program to address those challenges. Phase I (2000–2005) focused on improving social service delivery; capacity enhancement for communities, including overseeing 1,704 community-run sub-projects such as construction and rehabilitation of health care facilities, schools and other small-scale infrastructure; and a Public Works Program (PWP) component with 113,646 direct beneficiaries. The second phase (2005-2013) expanded the first stage commitments to address a social services, capacity enhancement including 12,247 community

sub-projects and income poverty, including a pilot of community –based conditional cash transfers (CCT) reaching 11,576 households in communities that were strengthened during the first phase .The third phase of TASAF ,the PSSN, supports a national social protection programme aimed at putting in place the building blocks of a permanent national social safety system. The PSSN programme aims to improve consumption and human capital accumulation and to reduce the poverty headcount and poverty gap by 5% and 30 % respectively. In 2015, TASAF successfully implemented a massive scale up of the PSSN from 250,000 households to 1.1 million households (10.5% of the population) in Tanzania (UNICEF, 2017).

2. LITERATURE REVIEW

A household is defined as one or more persons, who occupy a single housing unit, households consist of unrelated persons or persons related by birth, marriage, or adoption while a family refers to a group of two or more persons residing together and related by birth, marriage, or adoption (Haupt and Kane, 1998). In economics income is a net total of the flow of payments received in a given time period. Moreover, in accounting, accounting income is profitability that has been compiled using the accrual basis of accounting. In general, accounting income is the change in net assets during a reporting period, excluding any receipts from or disbursements to owners (Dogan, 2022). In regard to this study, house hold income defined as the total gross income before taxes, received within a 12-month period by all members of a household above a specified. Household income is a measure of the combined incomes of all people sharing a particular household or place of residence. It includes every form of income, e.g., salaries and wages, retirement income, near cash government transfers like food stamps, and investment gains (Nikiema, 2022) .Project implementation is defined as the logical conclusion, which can be used in evaluating, deciding, visioning, planning, applying for funds and finding the financial resources of a project (Chaplowe, 2008).Tanzania Social Action Fund is a Tanzania’s initiative to reduce poverty through increasing and enhancing the capacity of communities and stakeholders to prioritize, implement, and manage sustainable development initiatives and improving socio-economic services and opportunities (TASAF, 2020).

The study was guided by the social democratic theory of poverty as it was advanced by Piero Sraffa who argued that class struggles went beyond production spheres and therefore restricting poverty explanations to productions .The theory was supported by notable scholars including but not limited to Magombeyi and Odhiambo ,2016, Manjoro ,2017,Gichane ,2020 just to mention a few .After reviewing the literature it was found that most of the studies on TASAF used regression analysis and some descriptive analysis and none of them used granger causality . Therefore this study found there was a knowledge gap that need to be filled by conducting a study using the granger causality test .Mwaitete, 2018 argued that unlike regression that focuses on the relationship among variables granger causality goes beyond and focuses on the impact of the variables under investigation (Mwaitete, 2018) . Conceptually TASAF grants was set as an independent variable (X) and Household Income was set as dependent variable (Y) . Adora, 2021 stated that a variable X is causal to variable Y if X is the cause of Y or Y is the cause of X or both (Adora, 2021). Moreover the granger defined the causality relationship based on two principles, one the cause happens prior to its effect and two, the cause has unique information about the future values of its effect (Robert, 2020).

3.0 METHODOLOGY

The study opted to causal research design which enabled the researcher to test the hypotheses. The study was guided by three hypotheses first, there is no co-integration between TASAF grants and household income, second, TASAF grants cannot granger cause household income and lastly household income cannot granger cause TASAF grants. Quantitative research approach was adopted in this study since the results obtained were generalized to the entire population. The study used annual secondary data obtained from the office of Hai District and website of the National Bureau of Statistics. All data were measured in Tanzania shillings. TASAF grants annual data were obtained from the office of Hai district (DEDHai, 2022), while household income was computed by the researcher based on the data of regional GDP per capita, number of households and population projections retrieved from the website of the National Bureau of Statistics (NBS, 2019). Number of Households and Population Projections were computed by NBS based on 2002 National Population and Housing Census. A pilot study was conducted to assess if the data were fit for the study and the results indicated that data were not fit for the study and they need to be transformed .Two stages of transformation were performed by using excel computer software, first logarithm was applied but data were not fit and lastly first difference was applied and data were found to fit the study. The transformed data were analysed by using STATA computer software version 11.2R.Diagnostic tests were conducted and the results indicated that data were valid and reliable to predict and forecast the outcome of the study .Decision criterion of all tests was made based on the 5% level of alpha . The first diagnostic check was to assess the unit root or stationarity of the data .The aim of performing this test was to avoid spurious results when using time series data. To conduct this test, Phillips-Perron Test was carried out and the results obtained revealed that data were stationery and the results were significant at 5% level of alpha. The results of this test were presented on table 4.1 and 4.2 respectively. The second test was serial correlation .Serial correlation is the relationship between a given variable and a lagged version of itself over various time intervals. It measures the relationship between a variable’s current values given its past values .This test was performed by using Durbin- Watson Statistic and Breusch-Godfrey LM test for autocorrelation. The results revealed that there was no serial correlation .Therefore there is no interference in data interpretation. The results were presented in table 4.6. The third test was normality test. A normality test is used to determine whether sample data has been drawn from a normally distributed population .This study applied Shapiro-Wilk Test and the results indicated that time series data used for the study were drawn from normally distributed population. The results were significant at 5% level of alpha and were presented in table number 4.7.The fourth test was multicollinearity. Multicollinearity is a statistical concept where several independent variables in a model are correlated. By having a problem of correlation will result in less reliable statistical inferences. This test was carried out by using Variance Inflatior Factor (VIF) and the results indicated that there was no correlation between TASAF Grants and Household income .The results were significant at 5% level of alpha and were presented on table 4.8 and 4.9 respectively. The fifth and last check was heteroskedasticity test. Heteroskedasticity happens when the standard deviations of a predicted variable monitored over different values of independent variable or as related to prior time periods are non-constant. The existence of heteroskedasticity is a major concern in regression analysis and the analysis of variance, as it invalidates statistical tests of significance that assume that the modelling errors all have

the same variance .This test was done by using Breusch –Pagan Test and the results indicated that there was no heteroskedasticity .The results were significant at 5% level of alpha and were presented in table 4.10.

4.0 PRESENTATION AND DISCUSSION OF THE FINDINGS

The study was guided by three specific objectives each with one null hypothesis .The first specific objective was to examine whether there is co-integration between TASAF grants and household income. A null hypothesis was set and stated that there is no cointegration between TASAF grants and household income. Johansen tests for cointegration was carried out on this hypothesis. Johansen tests for cointegration is used to test integrating relationship between several non-stationery time series data. This test help to examine whether variable have long run relationships or are stable overtime due to their different order of integration (Mwaitete, 2016).The long run associations between TASAF grants and household income will help the Government ,TASAF program implementing agencies and policy makers to predict and forecast the future of the program. The results of the test indicated that TASAF grants and Household income were cointegrated .The results were significant at 5% level of alpha and was presented on table 4.4.Moreover the analytical review conducted on the trend of the data of TASAF Grants and Household income indicated that the two variables have long run association and were moving together in a positive direction. The result was presented graphically in table 4.11.

On the other hand the second and third specific objectives of the study were carried out by using Granger Causality Test. Granger Causality Test is a technique for determining whether one time series is helpful in forecasting another .It can decide if there is causality relationship between variables . Mwaitete, 2019 argued that granger causality model specifies whether Y (Household Income) causes X (TASAF grants) or X causes Y or both (Mwaitete, 2019).The second specific objective of this study was to examine whether TASAF grants can granger cause household income. This objective was guided by a null hypothesis which stated that TASAF grants cannot granger cause household income. The results of performing the granger causality Wald test indicated that TASAF grants can granger cause household income and the results were significant at 5% level of alpha. The results were presented in table 4.5. The findings were supported by other studies such as; World Bank report concerning Tanzania in 2019 indicated that without TASAF PSSN program the number of poor people would increase by 1million people living below the poverty line of 1.90\$ a day based on 2011 purchasing power parity (WB, 2019). Another study conducted by Kayunze and Mtelevu , 2014 on the contribution of vulnerable groups sub projects under TASAF to income poverty reduction in Bahi District Tanzania showed that 95.5% of respondents interviewed on the important of TASAF to their livelihood they agreed the program is important (Kayunze and Mtelevu , 2014)

Moreover, the third and last specific objective of the study was to assess whether household income can granger cause TASAF grants. The study was guided by a null hypothesis which stated that household income cannot granger cause TASAF grants. A granger causality Wald test was performed and the results revealed that at 5% level of alpha, household income cannot granger cause TASAF grants. The results were presented in table 4.5.

The findings of the study were supported by notable scholars such as;

Stewart, 2021 indicated that household in developing countries have a long time been perceived to receive their income predominantly from one or a few economic activities. Evidence abounds, however that households derive their household income from multiple sources (Stewart., 2021).

Furthermore, Haggblade et al., 2020 reports that agriculture constitutes a significant proportion of rural households’ income generating activities and rural employment, and income from this source accounts for 35 to 50 percent of total rural household income across the development countries (Haggblade, 2020)

5.0 CONCLUSION AND RECOMMENDATIONS

The results in table 4.5 show that TASAF grants can granger cause household income at 5% level of significant. The results mean that TASAF grants can be used to predict household income of the people of Hai and Tanzania at large. The two variables are cointegrated based on Johansen tests for co-integration as indicated in table 4.4, the value of t-statistics which is 16.1058 is greater than the critical value which is 15.41 at 5% level of significance therefore the null hypothesis which state that there is no co-integration between TASAF grants and Household income was rejected. The predicted model was assessed using Shapiro Wilk W test, test for heteroskedasticity, and test for serial correlation and found to be a valid model for prediction.

The study recommends the need of enhancing collaboration of the Government of Tanzania with other national and international stakeholders interested in the development of people in the local communities initiatives through TASAF grants financing framework on the programme implementation to ensure sustainability in Tanzania and worldwide.

6.0 LIST OF TABLES

Table 4.1 Unit root test for Household Income in Hai District, Kilimanjaro Region.

Phillips-Perron test for unit root		Number of obs = 14			
		Newey-west lags = 3			
	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value	
z(rho)	-16.508	-22.500	-17.900	-15.600	
Z(t)	-4.797	-4.380	-3.600	-3.240	
Mackinnon approximate p-value for z(t) = 0.0005					
dloghsincome	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
dloghsincome					
L1.	-.3201289	.2902255	-1.10	0.294	-.9589109 .3186532
_trend	-.3124918	.1445661	-2.16	0.054	-.6306796 .005696
_cons	1.980529	1.162522	1.70	0.116	-.5781655 4.539223

Table 4.2: Unit root test for TASAF grants received in Hai District, Kilimanjaro Region.

Phillips-Perron test for unit root		Number of obs = 14 Newey-west lags = 3		
Test Statistic	1% Critical Value	Interpolated 5% Critical Value	Interpolated 10% Critical Value	Dickey-Fuller Critical Value
Z(rho)	-12.108	-22.500	-17.900	-15.600
Z(t)	-3.268	-4.380	-3.600	-3.240

Mackinnon approximate p-value for Z(t) = **0.0718**

dlogtasafg~t	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
dlogtasafg~t	.0066186	.3012948	0.02	0.983	-.6565267 .669764
_l1.	.1297293	.227723	0.57	0.580	-.3714857 .6309442
_trend	-.9520659	1.931961	-0.49	0.632	-5.204284 3.300152
_cons					

Table 4.6: Serial Correlation Test Results

Durbin-watson d-statistic(2, 15) = **2.019932**

. estat durbinalt

Durbin's alternative test for autocorrelation

lags(p)	chi2	df	Prob > chi2
1	0.001	1	0.9706

H0: no serial correlation

. estat bgodfrey

Breusch-Godfrey LM test for autocorrelation

lags(p)	chi2	df	Prob > chi2
1	0.002	1	0.9671

H0: no serial correlation

Table 4.7: Normality test result

shapiro-wilk w test for normal data

variable	obs	w	v	z	Prob>z
dloghsincome	15	0.53493	9.017	4.349	0.00001

. sktest dloghsincome dlogtasafgrant

skewness/kurtosis tests for Normality

variable	obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	joint Prob>chi2
dloghsincome	15	0.0000	0.0001	21.41	0.0000
dlogtasafg~t	15	0.6421	0.0023	7.97	0.0186

Table 1.4.8 VIF decision criterion

VIF-values	Conclusion
VIF =1	Not correlated
1 VIF ≤ 5	Moderately correlated
VIF > 5	Highly correlated

Table 4.9: VIF test for Multicollinearity

variable	VIF	1/VIF
dlogtasafg~t	1.00	1.000000
Mean VIF	1.00	

Table 4.10 Heteroskedasticity test results

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Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of dloghsincome

chi2(1) = 0.19
Prob > chi2 = 0.6609

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. estat archlm

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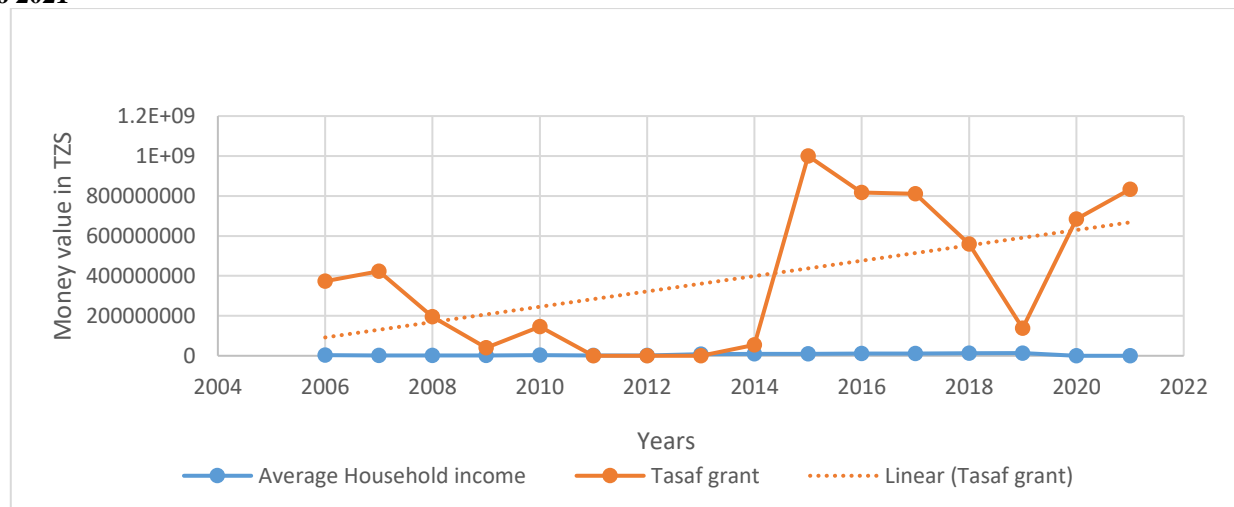
LM test for autoregressive conditional heteroskedasticity (ARCH)

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lags(ρ)	chi2	df	Prob > chi2
1	0.160	1	0.6893

H0: no ARCH effects vs. H1: ARCH(ρ) disturbance

Table 4.11 A graph showing analytical trend between TASAF Grants (Tzs) and Household Income (Tzs) from the year 2006 to 2021



Source: Research, 2022

7.0 REFERENCES

1. Abbas, J., 2022. Women's entrepreneurial contribution to family income: innovative technologies promote females' entrepreneurship amid COVID-19 crisis. *Frontiers in Psychology*, 13(1), pp. 2-31.
2. Adora, 2021. Large scale nonlinear Granger causality for inferring directed dependence from short multivariate time series data.. [Online] Available at: <https://www.nature.com/articles/s41598-021-87316-6> [Accessed 08 November 2022].
3. DEDHai, 2022. TASAF II and III progress reports from 2006 to 2021, Hai: Unpublished.
4. Dogan, E., 2022. The role of interaction effect between renewable energy consumption and real income in carbon emissions: Evidence from low-income countries. *Renewable and Sustainable Energy Reviews*, Volume 154, pp. 111-883..
5. Haggblade, H., 2020. "Rural development: the significance of agriculture and non-farm economy." In *Handbook of Development Policy*. Edward Elgar Publishing, pp. 182-191.
6. Kayunze and Mtelevu, 2014. The Contribution of Vulnerable Groups Sub Projects under TASAF to income poverty reduction in Bahi District, Tanzania. *Journal Of Economics and Sustainable Development*, 5(12), pp. 156- 165.
7. Mafie, G., 2021. Is there hope for Poverty Alleviation in Tanzania ?. [Online] Available at: <https://academia.edu/> [Accessed 22 October 2022].
8. Mather, M. L., 2020. Combined prevention for substance use, depression, and anxiety in adolescence: a cluster-randomised controlled trial of a digital online intervention. *The Lancet Digital Health*, 2(2), pp. 74-84.

9. Minkyu, K., 2021. Academic Topics Related to Household Energy Consumption Using the Future Sign Detection Technique. *Energies* , Volume 1424, pp. 84-146.
10. Mwaitete, C., 2016. The Role of Gold Export in Agricultural Development and Poverty Alleviation in Tanzania ;a thesis submitted in fulfillment for the award of doctors of phillosopy in economics in Galcotias University Greater Noida of India, Uttar Pradesh: Galcotias University.
11. Mwaitete, C. P., 2018. Gold Export Analysis and Influence to the economy of Tanzania: Multiple Regression Analysis. *Journal of Economics and Sustainable Development* , 9(18), pp. 55-63.
12. Mwaitete, C. P., 2019. Taxation on Gold Export For Agricultural Development in Tanzania. *Journal of Economics and Sustainable Development* , 10(24), pp. 119-128.
13. Mwakalila, E., 2022. Vulnerability of Poverty between Male and Female Headed Household in Tanzania.. *Journal of Family Issues* , pp. 19-40.
14. NBS, 2019. Tanzania in Figures. [Online]Available at: <https://www.nbs.go.tz>[Accessed 2 October 2022].
15. Nikiema, B., 2022. Household income and maternal education in early childhood and risk of overweight and obesity in late childhood: findings from seven birth cohort studies in six high-income countries. *International Journal of Obesity* , pp. 1-9.
16. Robert, P., 2020. Impact of Population Growth on Economic Growth of Tanzania , Arusha: Institute of Accountancy Arusha.
17. Shayan, F., 2022. Sustainable development goals (SDGs) as a framework for corporate social responsibility (CSR). *Sustainability*, 14(3), pp. 12-22.
18. Siqueira, E. d., 2021. Essays in applied microeconomics: housing, transportation, and education." PhD diss., 2021.. bibliotecadigital.fgv.br.
19. Stewart., K., 2021. Does household income affect children's outcomes? A systematic review of the evidence. *Child Indicators Research* , 14(3), pp. 981-1005..
20. UNICEF, 2017. Tanzania Conditional Cash Trasfer (TASAF III/PSSN): Youth Well-being and the Transition to Adulthood.. [Online] Available at: <https://transfer.cpc.unc.edu/countries/tanzania> [Accessed 11 October 2022].