

Measuring the Dispersion of Incomes (Tanzania)

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Summary

- The paper focuses on incomes inequality at country level, using ratio of top to bottom quantile average wage approach, “Equality Scale”.
- The widening income inequality has been a matter of concern to the policy makers and the general public, this paper also examines the differential agriculture incomes in rural areas where farm labourers and peasants comprise two-third of population.

Introduction: 1/2

- The aim of this paper is to investigate the dispersion of incomes and wages among households statistically.
- The composition of households is changing overtime, the government has to track who earns what in the economy and formulate policy to redistribute income through social security payment in order to correct unequal distribution of income.

Introduction: 2/2

- Looking at inequality over time, involves a discussion of the quintile approach, Lorenz Curve a visual indicator and Gini coefficient as a mathematical indicator
- A quintile is a statistical value where the sample or population is divided five groups, The outcomes of the top (richest) quintile are compared to outcomes of the bottom (poorest) quintile to show wage and income dispersion and the Gini coefficient is the measure of degree of inequality.
- It is also used to show the effectiveness of the government policy on income distribution.

Background 1/2

- Tanzania is a low-income rural economy, the majority of population still lives in rural areas and accounts for about 70 percent of total population according to the (2012 Population and Housing Census).
- These depend on agriculture for their livelihood and contribute nearly 29 percent of the Gross Domestic Product. (2015 Tanzania Economic Survey). Thus the question of how incomes differ among of households is of great importance in a country such as Tanzania.
- The paper reviews among other things: previous empirical studies of the income inequality. and analyses data by locality (urban and rural) using household income from national household based surveys which were scientifically done

Background 2/2

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Problem & Data:

Problem:

- When there is a high inequality of incomes, poor are getting poorer and rich are getting richer, thus the government has to intervene and tax those at the top in order to redistribute income to those at the bottom (tax and redistribute

Data

- The data are drawn from the Household Budget Survey a national representative sample of population conducted by Tanzania National Bureau of Statistics periodically.

Methodology:

- Datasets are analysed according to ascending order from poorest to richest and split into equal five quintiles i.e 20 percent for each quintiles
- data are represented on a lorenz curve and gives a way of measuring of Gini coefficient which measure between the Lorenz Curve and 45 degrees a line of perfect equality.
- It measure between the ranged from 0 and 1 numerical representation,
- a low Gini coefficient means a more equal distribution of income and a high Gini coefficient means a more unequal distribution of income, (1 is equal to perfect inequality).

Findings Urban:

Dispersion of Household Incomes	2007 HBS	2001 HBS	1991HBS
Percent of cummulative income-earners	Urban		
0-20	1.6	2.1	0.6
21-40	4.2	5.8	1.9
41-60	7.6	10.7	3.0
61-80	13.8	17.4	5.6
81-100	72.7	64.0	88.9
Ratio of top to bottom quartile average income	45.4	30.5	148.1
Equality average income ((1) = "most equal")	2	1	3
Gini Coefficient	0.6082	0.5416	0.7212
Source: Author's calculations:			

Findings Cont:

- The above table shown dispersion of household incomes. In 2001, the income distribution for 2001 for urban households was “most equal” with low Gini coefficient of 0.5416 as compared to the other years of survey.
- The first 20 quintile has 2.1 percent of all income, second quintile has 5.8 percent, third quintile has 10.7 percent, fourth quintile has 17.4 percent of all income and the fifth quintiles has 64,0 of all income

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Findings Cont

- **The distribution of households income was worst in 1991**
- **The Gini coefficient of 0.7212 is quite large, with the share of income going to the bottom quintiles having fallen and that going to the top quintiles having risen.**

Findings-Rural:

Dispersion of Household Incomes	2007 HBS	2001 HBS	1991HBS
Percent of cummulative income-earners	Rural		
0-20	2.4	2.0	1.6
21-40	6.3	5.4	4.9
41-60	11.2	9.4	8.7
61-80	19.1	16.8	15.3
81-100	60.9	66.4	69.5
Ratio of top to bottom quartile average income	25.4	33.2	43.4
Equality average income ((1) = "most equal")	1	2	3
Gini Coefficient	0.5346	0.5590	0.5848
Source: Author's calculations:			

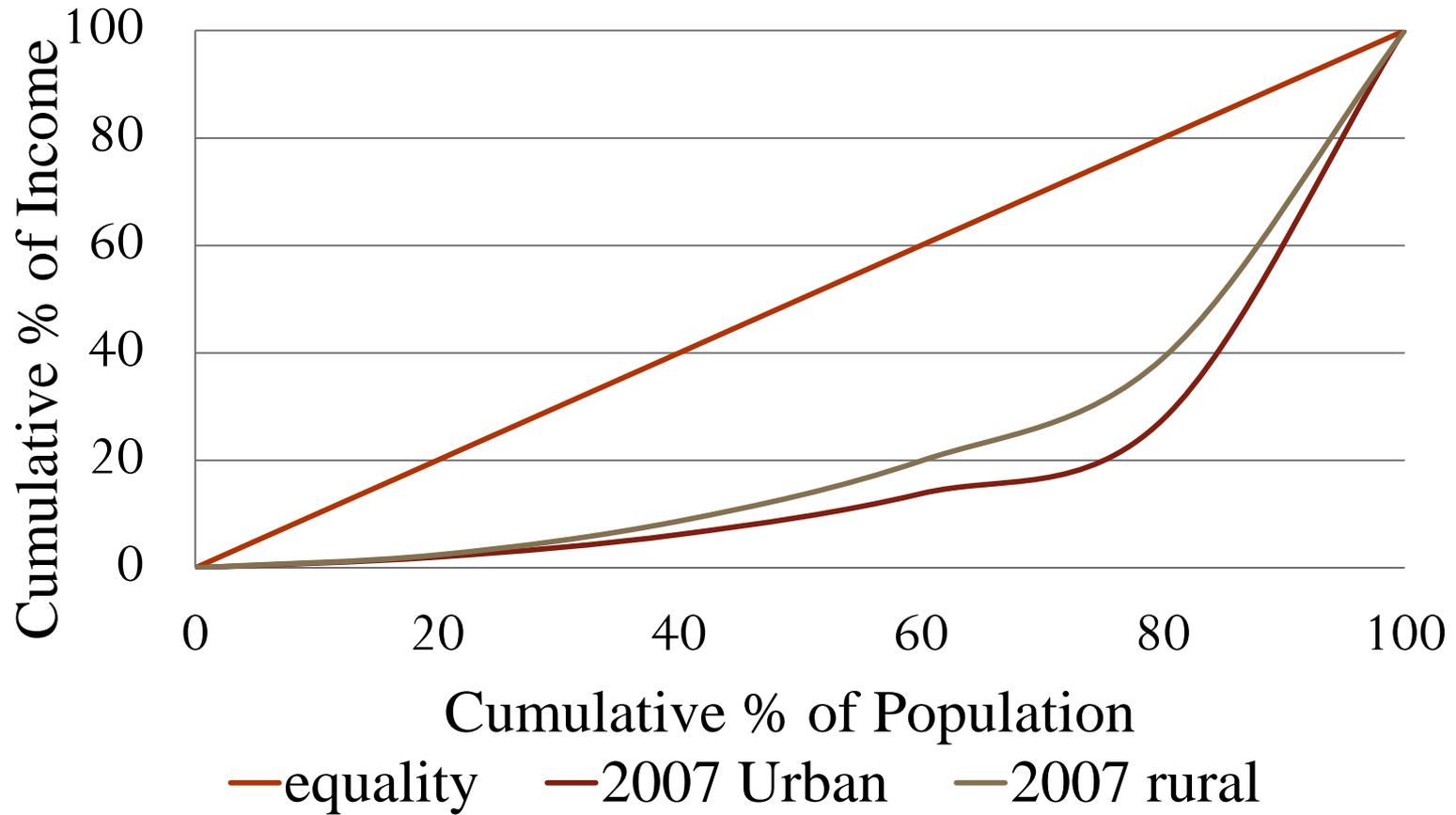
Findings Cont:

- Table 1.1 shows dispersion of household income for rural areas. In 2007, the income distribution was “most distributed equal income” with a Gini coefficient of 0.5346 was a bit lower than those of the other years of survey
- In 1991, 20 percent of the population earned only 1.6 percent of total income. and the year had a highest Gini coefficient of 0.5848, that means the most unequal society.
- Although evidence indicates that income inequality might have been narrower in rural areas than in urban areas, efforts should continue to be made to reduce income inequality.

Lorenz Curve: Urban & Rural Households- 2007

- Measurement of the level of equality and inequality in income distribution using Lorenz curve between rural and urban household incomes in 2007 HBS.
- The graph above indicates the line for urban households is farther away from the line of perfect equality than the line in for rural areas
- Thus income distribution is much more unequal in urban areas and there might be some factors for the discrepancy i.e although poverty has its root in rural areas, it is more widely spread in urban areas.

Lorenz Curves: Urban & Rural 2007

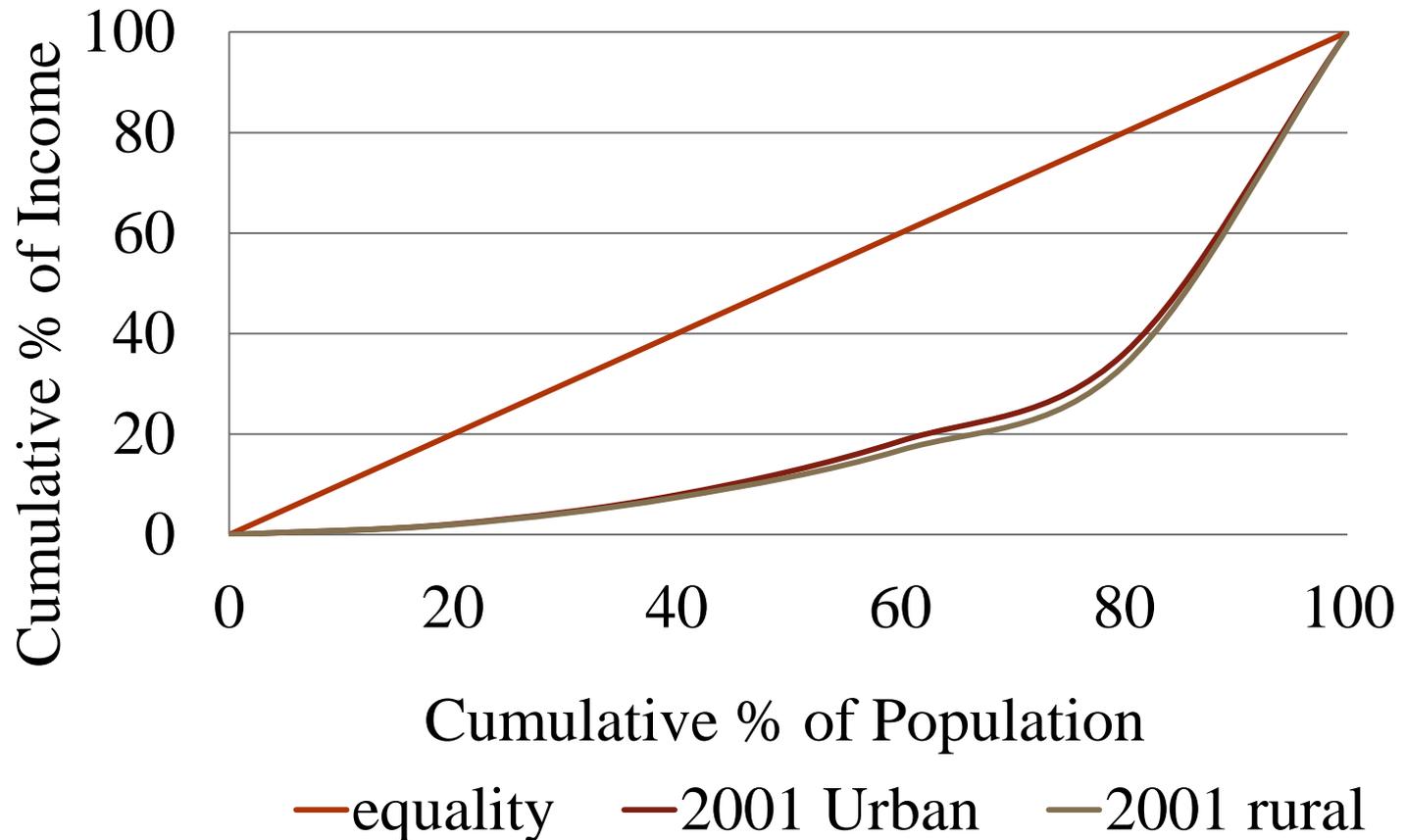


Lorenz Curve: Urban & Rural Households- 2001

- . The Lorenz Curves are side by side and away from the line of perfect equality and the Gini coefficients of 0.5416 and 0.5590 for urban and rural areas respectively are quite large.
- This implies that there is unequal distribution of income among households and a shrinking gap of lines between urban and rural income that can mostly explained by education and labour variables and a decreasing number of children and location

Lorenz Curve: Urban & Rural 2001

Lorenz Curve: Urban & Rural Households-2001

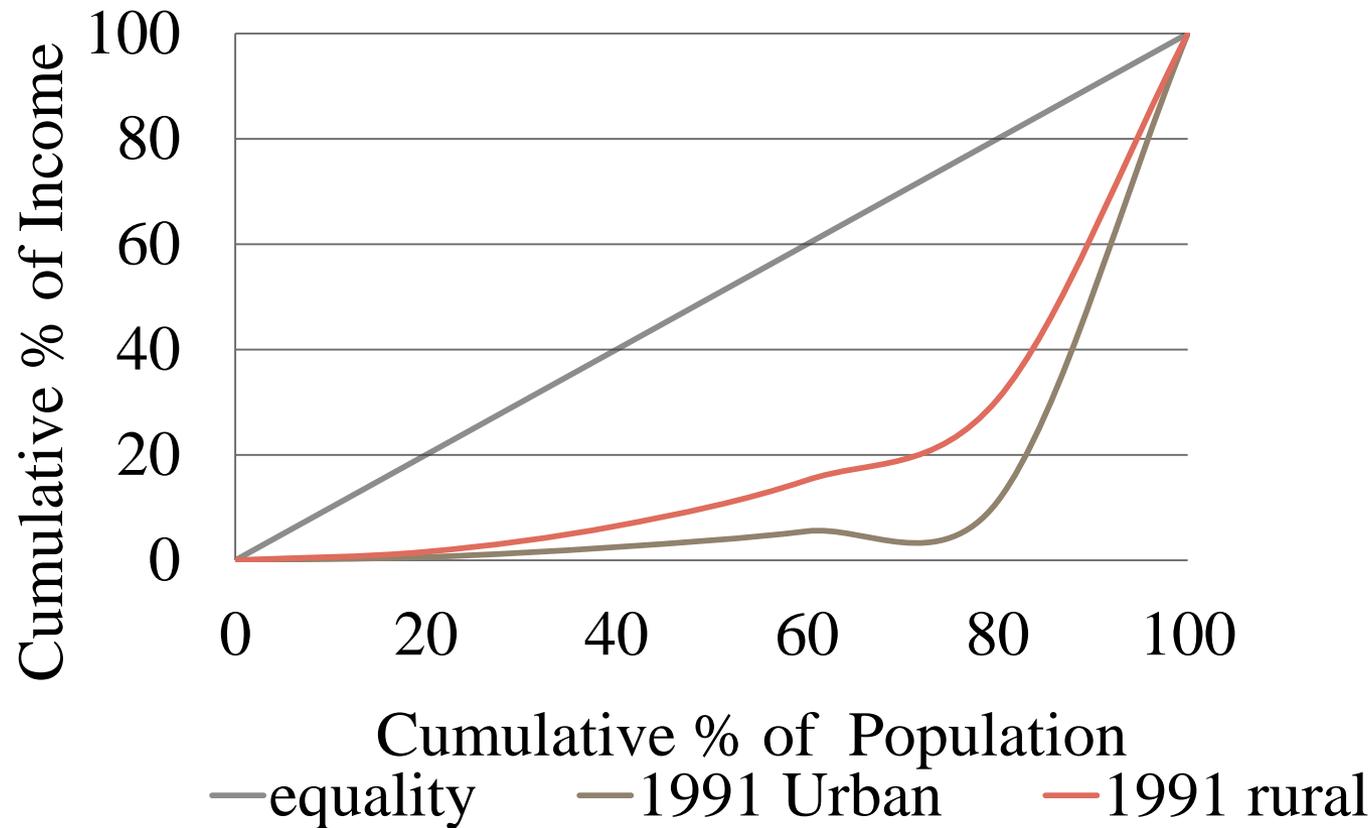


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Lorenz Curve: Urban & Rural Households

Lorenz Curve: Urban & Rural Households-1991



Lorenz Curve: Urban & Rural Households- 1991

- The dispersion of household incomes in 1991 was quite large compared to other survey years as it indicated by the Lorenz Curves for urban and rural households.
- .The lines are more approaching the edges, the more poor people have a bigger gap of incomes and the distribution of income is much less either, because the line of curve is far away from the line of perfect equality

Concluding Remarks:

- Income dispersion is characterised by high levels of unemployment, poverty and inequality among households
- Poverty and inequality are on the increase, the major cause of dispersion in agriculture incomes is the size of the farms and types of crops grown.
- About 90 percent of all farmers are still practicing subsistence farming and mostly are engage with type of activity that are less time almost half a year, and they do indulge in activities that are less productive

Concluding Remarks Cont:

- In order to reduce income gaps and the rate of unemployment, farmers should retained factors of production
- increase time of working, and indulge in activities that are more productive.
- When income distribution is very unequal,, the government should introduce progressive tax in order to redistribute income.

End of Presentation

Thank you for Listening