

Inequality, Poverty and Inclusive Growth in TOGO: An Assessment of the Survey Data

Muriel E.S. Ametoglo* Pr. Guo Ping

School of Economics and Trade, Hunan University, Yue Lu District, Changsha 410079, China

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Abstract

Our research carries out three tasks. The first is to examine the trends of poverty and inequality across the rural and urban areas in Togo between 2006 and 2011. The second task is to look for the drivers of these changes. The last is to inspect the evidence of inclusive growth. Using data from Core Welfare Indicators Questionnaire Survey (QUIBB) for 2006 and 2011 and the ADePT Poverty and Inequality Module, we explore poverty and inequality indices. We found that: 1) fifty percent of the Togolese population in the urban area, lives with per capita consumption expenditure greater than the poverty line. 2) The decrease of the headcount ratio poverty from 2006 to 2011 was much faster in the urban areas than the rural areas. 3) In five years, inequality has risen in both rural and urban areas. 4) Even though the prevalence of poverty has declined between 2006 and 2011, the depth and severity of poverty has intensified in Togo. 5) The economic growth in Togo was not pro-poor.

Keywords: poverty, inequality, pro-poor, inclusive growth.

1. Introduction

In Sub-Saharan Africa, the number of people living on less than \$1.90 per day rose from 287.6 million to 388.8 million between 1990 and 2012. However, during the same period, the poverty headcount ratio at \$1.90 per day fell from 56.8 percent to 42.7 percent (Poverty & Equity Databank and PovcalNet). The decline in poverty varied across countries.

In Togo, reducing poverty and inequality have been the focal point of development policy. The country strived to meet the first Millennium Development Goal of halving poverty and hunger by 2015. In 2009, Togo started the poverty reduction strategy. The promotion of a participative, balanced and sustainable development was the third pillar in the Poverty Reduction Strategy Paper (DSRP, 2009). In 2015, the country adopted the 17 Sustainable Development Goals among which the aim to ending poverty and fighting inequality.

This paper presents data on inequality and poverty in TOGO based on information collected by the QUIBB. We examine the evolution of poverty and inequality between 2006 and 2011, their decomposition according to the rural and urban sector of the population.

This paper has three precise objectives. The first is to report the evolution of poverty and inequality in the rural and urban areas in Togo. The second objective is to look for the drivers of these changes. The last goal is to debate the inclusive growth.

Economic growth is associated with the poverty decline, as found by the literature including Deininger and Squire (1998), Dollar and Kraay (2002), White and Anderson (2001), Ravallion (2001) and Bourguignon (2003). In 2015, the growth rate of the Togolese economy was 5.5 percent. This growth was inconstant throughout the years. The country experienced negative growth at the beginning of years 2000s. Since 2003, it achieved a sustained growth through public investment and the promotion of employment. From 4.2 percent in 2006 to 4.9 in 2011, the economic growth followed an irregular pattern.

Togo is classified among the low human development category. In 2014, its Human Development Index (HDI) was 0.484, ranking 162th among 188 countries (UNDP, 2015). The prevalence of undernourishment in total population was 36.8 percent during 1990-1995 and fell to 11.4 in 2010-2015.

In Togo, most of the studies on poverty and inequality were based on the multidimensional poverty.

Lawson-Body and al (2006) found that, between 1988 and 1998, the multidimensional poverty was unequally distributed in Togo. This poverty worsened in rural areas and in the Savanes region. Afawubo and Noglo (2016) used a multidimensional poverty measure to show that, nationally, multidimensional poverty has fallen in Togo between 2006 and 2011. Their results suggest that inequalities have increased according to the level of education, place of residence and gender.

Our research focuses on the monetary poverty and inequality. We highlight the decomposition of inequality using the Theil index and address the issues of pro-poor and inclusive growth.

In the next section, we provide a description of the methodology followed by the analysis of the trends of poverty and inequality brief. In Section 4, we decompose the overall inequality into the between- and within-components. We examine the determinants of poverty in Section 5 and discuss the nature of the growth in section 6. Section 7 concludes.

2. Methodology

2.1 Household Survey Data

The QUIBB survey is designed to gather information related to poverty, to collect information needed to identify and classify target groups and provide basic welfare indicators. It was, in addition, meant to collect information to measure access, utilization and satisfaction with social services (Global Health Data Exchange). The survey was developed by a group of donors and institutions and realized in Togo by the General Directorate of Statistics and National Accounts (DGSCN).

We use two waves of the survey: QUIBB 2006 and QUIBB 2011. It represents the rural and urban residents in the 5 regions: Central, Maritime, Plateaux, Savanes and Kara; as well as the capital city Lome which is an urban zone. The survey covers the issues of education, health, employment, household consumption, and income. It provides current data on indicators of living conditions of households; the main basic indicators on adult literacy, education of young people, health, access to clean water, to employment, to the perception of the economic situation of households and basic indicators of poverty. Both surveys (2006 and 2011) are highly comparable and seek to provide necessary information for the measurement of poverty and inequality. Respectively, 7500 and 5532 households were questioned during the QUIBB 2006 and 2011.

We have applied the following sample restrictions on the original data set. First, we keep only the observations for which there is information at the individual level, where there is information about education, age and gender. Second, we only include in the estimation sample, the households that have information on welfare. The descriptive statistics of the dataset used is presented in Table 1.

2.2 Welfare indicator

The QUIBB uses consumption expenditure per adult equivalent as the welfare indicator for the poverty analysis. In Togo, the expenditure per adult equivalent aggregate is calculated by dividing the total household expenditure by the adult equivalent scale (the measurement given by the FAO). Compared to income index, the consumption expenditure per adult equivalent covers the different needs of household members. This follows Coudouel et al. (2002) who argued that consumption is a better measure of poverty. Consumption considers the access and availability of goods; it may also better reflect a household's ability to meet basic needs. The measurement of the households' well-being was constructed following the methodology developed by Deaton and Zaidi (2002). The poverty level is the level of consumption which will enable the household or individual to attain their basic needs, food or nonfood. It was 242094 francs CFA in 2006. The poverty levels in 2011 were obtained by discounting those of 2006 by the inflation rate between the two periods. It was set at 276400 francs.

2.3 Measures of poverty

To measure poverty in TOGO, we use the Foster-Greer-Thobekke FGT (composite measure of poverty) index, decomposable in three indices:

$$P_{\alpha} = \frac{1}{n} \sum_i^q \left(\frac{z-y}{z} \right)^{\alpha} \quad (1)$$

where y denotes the expenditure of the i^{th} poor household (or individual), n the total number of households and q the number of households whose expenditures are below the poverty line z .

If $\alpha = 0$, the index P_{α} becomes: $P_0 = q/n$ (2)

It is referred to as the head-count index. The head-count index of poverty (P_0) measures the prevalence of poverty. It is the portion in the total population in Togo living below the poverty line.

With $\alpha = 1$, the index becomes the poverty-gap index (P_1), expressed as:

$$P_1 = \frac{1}{n} \sum_i^q \left(\frac{z-y}{z} \right) \quad (3)$$

The poverty-gap index determines the depth of poverty. It counts the extent to which individuals, on average, fall below the poverty line, and expresses it as a percentage of the poverty line.

For $\alpha = 2$, the severity of poverty is measured that the Squared Poverty Gap (P_2):

$$P_2 = \frac{1}{n} \sum_i^q \left(\frac{z-y}{z} \right)^2 \quad (4)$$

2.4 Measures of inequality

The Gini index measures the percentage deviation from the state of perfect equality. The Gini coefficients ranges from a minimum value of zero, when all individuals are equal, to a maximum value of one. Following Gini (1912), the Gini index has the general formula:

$$Gini = \frac{1}{2n^2 \bar{y}} \sum_{i=1}^n \sum_{j=1}^n |y_i - y_j| \quad (5)$$

The general entropy GE (1) for $\alpha=1$ is Theil's T index. It may be written as:

$$GE(1) = \frac{1}{N} \sum_{i=y}^N \frac{y_i}{\bar{y}} \ln \left(\frac{y_i}{\bar{y}} \right) \quad (6)$$

The Atkinson class of inequality is defined as:

$$A_\varepsilon = 1 - \left[\frac{1}{N} \sum_{i=1}^N \left(\frac{y_i}{i} \right)^{1-\varepsilon} \right]^{1/(1-\varepsilon)} ; \varepsilon \neq 1 \quad (7)$$

The higher the value of ε , the more society is concerned about inequality (Atkinson, 1970).

3. Trends and Patterns of poverty and Inequality

We use ADePT Software, which is an automated system for micro-level surveys data analysis. Developed by the World Bank, ADePT helps standardize the production of analytical reports.

3.1 Poverty Trends in TOGO

Table 2 depicts the poverty trends. The ratio of poor in the Togolese population fell from 61.7% in 2006 to 58.7% in 2011. In 2006, of all the poor people in TOGO, 23.7 percent can be found in the Maritime region. This share decreases to 19.6 percent in 2011. The distribution of poor increased in Plateaux and Savanes regions shifted in 2011.

From the results reported in Table 3, in 2006, at the national level, the three poorest consumption quantiles are lower than the poverty line (at 242094 francs CFA). Fifty percent of the population in the rural area consume less than 170,174.9 francs in 2006 and less than 183,461.9 francs in 2011.

In contrast, in the urban area, 50 percent of the Togolese population lives with per capita consumption expenditure more than the poverty line (242,094 francs in 2006; 276,400 francs in 2011).

3.2 The FGT index

Table 4 shows that the headcount rate for the rural area's population in 2011 is 34.6. This means that 34.6 percent of the urban area population is poor. This number decreased compare to 2006. Of all the Togolese living in the rural zone, in 2006, 74.3 percent were poor. The share of the poor people living in the rural zone decreased to 73.4 in five years. Overall, in the country, there was a substantial decline of the poverty headcount of 3 percent point between 2006 and 2011.

In a society with no poor, the poverty gap index will be zero. The higher the number, the higher the poverty. It counts the extent to which individuals, on average, fall below the poverty line, and expresses it as a percentage of the poverty line. The total poverty gap increased by 1.4 from 22.9 in 2006 to 24.4 in 2011. Likewise, the rural area's poverty gap measure has also risen in five years. On the other hand, the gap dropped in the urban zone by 0.2 point. While the number of poor in rural area decreased between 2006 and 2011 (74.3 to 73.4), the percentage of the individuals falling below the poverty line is bigger (29.3 to 33.1) respectively.

The squared poverty gap assesses inequality as it catches differences in the severity of poverty among the poor. Between 2006 and 2011, there is a larger rise in the squared poverty gap in the rural area (4.0) than in the urban one (0.2). Thus, inequality in rural poor was high.

Even though the prevalence of poverty has declined between 2006 and 2011, the depth and severity of poverty has intensified in Togo.

Table 4: The FGT indices of poverty

	Poverty Headcount Rate P0			Poverty Gap P1			Squared Poverty Gap P2		
	2006	2011	Change	2006	2011	Change	2006	2011	Change
Urban	36.8	34.6	-2.1	10.3	10.1	-0.2	4.1	4.3	0.2
Rural	74.3	73.4	-0.9	29.3	33.1	3.8	14.5	18.4	4.0
Total	61.7	58.7	-3.0	22.9	24.4	1.4	11.0	13.1	2.1

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

3.3 Inequality

We report in Table 5, the indicators used to assess the evolution of inequality. If every household in Togo has the same consumption expenditure, the income Lorenz curve is a 45 degree line from the lower left corner to the upper right corner. In figure 1, the Lorenz curve for the rural areas showed that inequality increased in 2011 compared to 2006.

From the Lorenz curve, the Gini coefficient can be derived. It is interpreted as the percentage deviation from the state of perfect equality. Globally, the Gini index is higher in 2011 than in 2006. This increase in inequality is observed both in rural and urban areas and in each of the regions. The Atkinson Index and the Theil index corroborate the unequal distribution of consumption expenditures in TOGO. (Table 5). At regional level, the different inequality indices reveal that inequality has increased in all the regions between the 5 years. During this period, the Maritime region recorded the highest rise in inequality.

Table 5: evolution of income inequality by indices

	2006			2011		
	Gini coefficient	Atkinson Index	Theil index (T)	Gini coefficient	Atkinson Index	Theil index (T)
Urban	31.1	14.7	16.5	35.2	18.7	21.7
Rural	29.8	13.5	15.2	35.4	18.7	21.4
Total	33.5	16.7	19.3	39.3	23.0	27.0
Regions						
Centrale	26.7	10.9	12.5	31.0	14.5	17.0
Kara	29.8	13.5	15.1	35.4	18.9	21.2
Lome	29.3	13.1	14.6	34.1	17.6	20.8
Maritime	27.8	11.7	13.2	35.2	18.8	21.6
Plateaux	30.0	13.6	15.4	35.5	18.7	21.8
Savanes	28.6	12.5	15.0	34.4	17.7	22.1

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

Note: The Atkinson index reported here is related to the geometric mean, for alpha ($\alpha=0$)

4. Decomposing Income Inequality

Inequality decomposition inspects the contribution to inequality made by each specific characteristic. The decomposition analysis explains the structure of income inequality across the Togolese population. It detects regions that contribute disproportionately to inequality.

Average consumption expenditure may differ from region to region in Togo, which can lead to inequality between groups. Besides, consumption expenditures vary inside each region, adding a within group component to total inequality.

Though the Gini Index is the most popular index of inequality, it is not perfectly decomposable. Besides the within- and between- component, it carries a residual. Lambert and Aronson (1993). A good alternative to the Gini Index is the general entropy indices, which can be decomposed in an additive way. We use the Theil index.

Figure 2 shows that more than 18 percent of the overall inequality in 2006 was attributable to the inequality across urban-rural divide subgroups. This percentage rose to 20 percent in 2011.

Surprisingly, the results of the decomposition for the regions subgroups are different. It shows that the inequality between regions has slightly decreased between 2006 and 2011. (Figure 3)

The decomposition reveals high between-inequality and low within-inequality. These results agree with the paper of Noglo (2014, b) who found a similar result using the decomposition of the Gini index through Shapley's approach for the QUIBB 2006.

Cowell and Jenkins (1995) prove that the within- and between-group components of inequality, can be related to overall inequality in the expression: $I_b + I_w = I$. The between-types inequality can be interpreted as inequality of opportunity, and the within-types inequality explained as inequality due to effort. (Checchi and Peragine, 2010).

5. Determinants of poverty

We estimate a multivariate regression and analyze the determinants of the per capita consumption expenditures. A set of explanatory variables were chosen: i) the household size and its squared value, ii) the share of children in the age group of 7-16 years, iii) the age of the household head, iv) the share of male adults and female adults. We added regional dummies, dummies for education and gender. The model is in the form:

$$Y = Z\beta + \varepsilon \quad (8)$$

Where Y represents an $n \times 1$ random vector of the logarithm per consumption expenditure;

Z is a $[n \times (k + 1)]$ matrix of the explanatory variables; β is a $(k+1) \times 1$ vector of unknown parameters, and ε is an $n \times 1$ vector of random errors.

Table 6 reports the results. In Togo, a larger household size, a bigger share of male and female adults, a bigger share of children of age 7-16, and a bigger share of the elderly have significant negative effects on the per capita consumption expenditure for both rural and urban areas in 2006. Undeniably, as the number of household members increases, the monetary needs also arise.

In 2011, a greater share of female adults is positive significantly. This change in the impact of female adults on consumption expenditures is explained by the women's empowerment policies adopted by Togo. In its 2009 Poverty Reduction Strategy Paper (DSRP, 2009), the Togolese government decided to promote the gender equality and equity. Among the adopted policies, there was the facilitation of the access of women to decent employment and decision-making positions.

On a sub-regional level, living in regions of Lome, Maritime, and Plateaux increases significantly the per

capita consumption expenditure. However, being located in the Savanes region reduces the consumption expenditure in 2006 and 2011. Policy makers should implement effective local strategies that considers the real needs expressed by the people themselves.

In the rural area in 2006, the per capita consumption expenditure logarithm of a female-headed household was 0.031 points lower than that of a male-headed household. This coefficient became -0.125 in 2011. This implies that, over five years, the consumption gap between female and male-headed households has worsening.

A member of a household who has completed at least the primary education (6 years of schooling) or secondary education (9 years of school) has a positive effects on the household consumption expenditure in rural and urban areas during both periods.

6. Pro Poor and Inclusive Growth

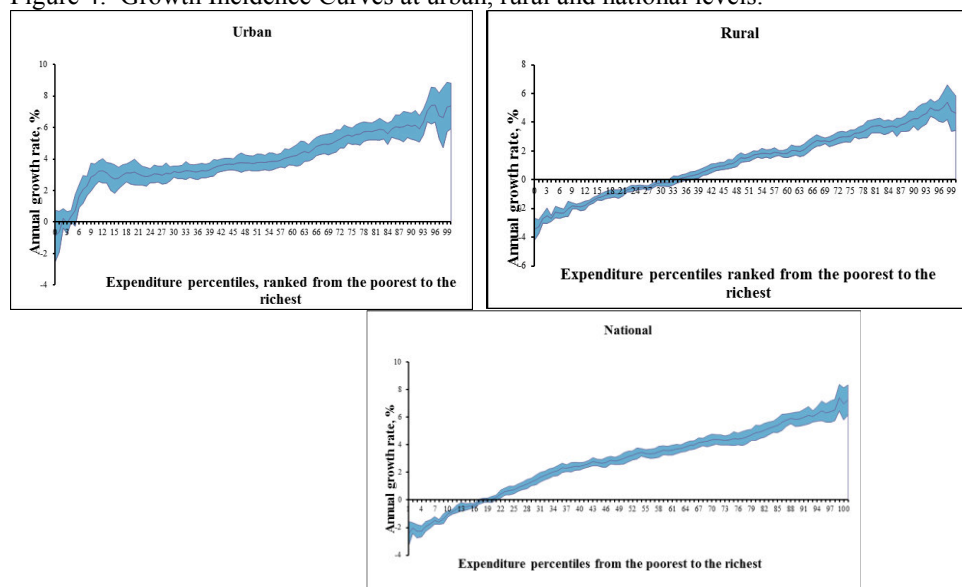
Growth is pro-poor as long as poor people benefit in absolute terms. What is the inclusive growth? Rauniyar and Kanbur (2010) define it as a growth that is accompanied by declining income inequality. The Commission on Growth and Development (2008) defined inclusiveness as a “concept that encompasses equity, equality of opportunity, and protection in market and employment transitions”.

Ali (2007a) mentioned that rising income inequalities present a danger to social and political stability and the sustainability of the growth process itself.

As national expenditure increases, the expenditure of the poor may increase more or less rapidly than that of the whole country. We address the issue of pro-poor growth to examine whether the poor Togolese benefited from the growth. We use the methodology of the growth incidence curves (GIC), following Ravallion and Chen (2003).

The Growth Incidence Curves express the annualized growth rate of per capita consumption expenditure for every percentile of income distribution between 2006 and 2011. In the urban area, consumption has increased on average for all the percentile groups. However, the middle-class and the rich have benefited more from the growth between 2006 and 2011. It suggests the disparity between the rich and the poor has deteriorated. (Figure 4). In rural zones, the growth incidence curve is positively sloped and is below zero for the first three deciles of the population. At the national level, the growth rate of the upper percentiles are higher than that of lower percentiles. Between 2006 and 2011, a period of solid upsurge in inequality, consumption growth of the households at the top and in the middle of the income distribution was significantly higher than those at the bottom. We deduce that the growth in Togo was not pro-poor because it left the poor worse-off. We define by ‘inclusive’ the growth that reduces both poverty and income inequality. If inclusive growth “wants growth to benefit all stripes of society, including the poor, the near-poor, middle income groups, and even the rich” (Klasen, 2010: 2), we, thus, argue that growth in Togo is not inclusive.

Figure 4: Growth Incidence Curves at urban, rural and national levels.



Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

7. Conclusion and Policy implications

In this paper, we explored the urban-rural poverty and inequality in Togo between 2006 and 2011. Fifty percent of the Togolese population in the urban area, lives with per capita consumption expenditure greater than the poverty line.

The decrease of the headcount ratio poverty from 2006 to 2011 was much faster in the urban areas than the rural areas. The disparity between the rural and urban areas is persistent. Togo is the only WAEMU country that has not yet decentralized. Decentralization system began in 2016 and is crucial in the fight against of spatial differences. .

In these five years, inequality has risen in both rural and urban areas. During this period, the depth and severity of poverty has intensified in Togo. To fulfill the first and tenth sustainable development goals (ending poverty in all forms and reducing inequality in a variety of context, respectively) by 2030, policies in Togo must focus on inequality. Policy makers must target both the within and between inequalities. Tackling income inequality is necessary to eliminate poverty.

The economic growth in Togo was not pro-poor. The households in the upper and middle distribution level have gained from growth, leaving behind the bottom.

References

- Afawubo, K., & Noglo, Y. A. (2016). Accounting for Household Expenditures Inequality and Multidimensional Poverty Reduction in Togo between 2006 and 2011. AFSE 2016 65th Congress, Nancy, France, June 27, 2016
- Ali, I. (2007). Inequality and the Imperative for Inclusive Growth in Asia. *Asian Development Review*. 24. (2). Asian Development Bank (ADB). Manila
- Araar, A. & Duclos, J.Y. (2007). Poverty and inequality components: a micro framework. CIRPEE Working Paper 07(35): 44
- Atkinson, A.B. (1970). On the Measurement of Inequality, *Journal of Economic Theory*, 2: 244-63.
- Bourguignon, F. (2003). The growth elasticity of poverty reduction: explaining heterogeneity across countries and time periods. *Inequality and growth: Theory and policy implications*, 1, 1.
- Checchi, D., & Peragine, V. (2009). Inequality of opportunity in Italy. *The Journal of Economic Inequality*, 8(4), 429-450. <http://dx.doi.org/10.1007/s10888-009-9118-3>.
- Commission on Growth and Development. (2008). *Growth Report: Strategies for Sustained Growth and Inclusive Development*, the World Bank.
- Coudouel, A., Hentschel, J.S., Wodon, Q.T. (2002) Poverty measurement and analysis. In *A Sourcebook for Poverty Reduction Strategies*; Klugman, J., Ed.; World Bank: Washington, DC, USA, 2002.
- Cowell, F.A. (1980). On the Structure of Additive Inequality Measures. *Review of Economic Studies*, 47: 521- 31.
- Cowell, F.A., & Jenkins, S.P. (1995). How Much Inequality can we explain? A Methodology and an Application to the USA. *Economic Journal*, 105: 421-30
- Datt, G., & Ravallion, M. (1992). Growth and Redistribution Components of Changes in Poverty Measures: A Decomposition with Applications to Brazil and India in the 1980s. *Journal of Development Economics* 38: 275–96.
- Deaton, A., & Zaidi, S. (2002). Guidelines for Constructing Consumption Aggregates for Welfare Analysis. LSMS Working Paper; No. 135. World Bank. <https://openknowledge.worldbank.org/handle/10986/14101>
- Deininger, K., & Squire, L. (1998). New ways of looking at old issues: inequality and growth. *Journal of Development Economics*, Elsevier, vol. 57(2), pages 259-287.
- DGSCN. (2014) .Togo - QUIBB (Questionnaire de base des indicateurs de base du bien-être) 2011. Archives des Enquêtes Statistiques. Rapport généré, le 6 Décembre 2014.
- DGSCN. (2014). Togo - QUIBB (Questionnaire de base des indicateurs de base du bien-être) 2006. Archive des Enquêtes Statistiques. Rapport généré, le 8 Septembre 2014.
- Dollar, D., & Kraay, A. (2002). Growth is good for the Poor. *Journal of Economic Growth*. 7:195-225.
- DSRP (2009). République du Togo: Document De Stratégie Par Pays Intérimaire 2009-2010. Banque Africaine De Développement (Afd) et Fonds Africain De Développement 2009, Janvier 2009
- DSRP-C (2010). Document complet de Stratégie de Réduction de la Pauvreté 2009 – 2011. Rapport du FMI No. 10/33, Février 2010
- Fonds Monétaire international (2010)/ Togo: Document complet de stratégie de réduction de la pauvreté 2009–2011. Rapport du FMI No. 10/33, Février 2010
- Foster, J., Greer, J., & Thorbecke, E. (1984). A Class of Decomposable Poverty Measures. *Econometrica* 52: 761-776.
- Foster, J., Seth S., Lokshin, M., & Sajaia, Z. (2013) . *A Unified Approach to Measuring Poverty and Inequality: Theory and Practice* (Washington: World Bank).
- Gini, C. (1912). Variabilità e mutabilità, contributo allo studio delle distribuzioni e delle relazioni statistiche. Bologna.
- Global Health Data Exchange, [Online] Available: <http://ghdx.healthdata.org/series/core-welfare-indicators-questionnaire-survey-cwiq>. Accessed online le 14 August 2016
- Klasen, S. (2010). Measuring and Monitoring Inclusive Growth: Multiple Definitions, Open Questions, and Some

- Constructive Proposals. ADB Sustainable Development Working Paper Series No. 12
- Lambert, P. J., & Aronson, J. R. (1993). Inequality Decomposition Analysis and the Gini Coefficient Revisited. *The Economic Journal*, Volume 103, Issue 420 (Sep., 1993), 1221-1227.
- Lawson Body, B.K. et al. (2007). Comparative Analysis of Poverty and Inequality in Togo: A Multidimensional Approach Based on a Wealth Index. Poverty and Economic Policy Research Network Working Paper No. PMMA-2007-10
- Noglo, Y. A. (2014). Monetary inequality among households in Togo An illustration based on the decomposition of the Gini coefficient using the Shapley value approach. WIDER Working Paper 2014/151
- Ranieri, R., & Ramos, R.A. (2013). Inclusive Growth: the Building up of a Concept. IPC-IG Working Paper, No. 188. Brasília, International Policy Centre for Inclusive Growth.
- Rauniyar, G., & Kanbur, R. (2010). Inclusive Development: Two Papers on Conceptualization, Application, and the ADB Perspective. January draft. Independent Evaluation Department, ADB.
- Ravallion, M. (2001). Growth, Inequality, and Poverty: Looking beyond Averages. *World Development* 29(11):1803–15.
- Ravallion, M., & Chen, S. (2003). Measuring Pro-Poor Growth. *Economics Letters*, 78(1), 93-99
- Sen, A. (1976). Poverty: an ordinal approach to measurement. *Econometrica*, 46: 437-446.
- Shorrocks, A.F., (1980). The Class of Additively Decomposable Inequality Measures, *Econometrica*, 48, 613-625.
- Stratégie de Croissance Accélérée et de Promotion de l'Emploi. (SCAPE). 2013 – 2017, Aout 2013
- UNDP United Nations Development Programme. (2015). Human Development Report: Work for Human Development. [Online] Available: http://hdr.undp.org/sites/default/files/2015_human_development_report.pdf Accessed 14 August 2016
- White, H., & Anderson, E. (2001). Growth versus Distribution: Does the Pattern of Growth Matter? *Development Policy Review* 19:3 267-289.

Table 1: descriptive Statistics of the QUIBB Survey Wave 2006 and Wave 2011

	N	mean	minimum	maximum
Wave 2006				
ident (Household ID)	36,430	3,988.8	1.0	7,500.0
seuil (2006)	36,430	242,094.0	242,094.0	242,094.0
urbrur (Urban)	36,430	1.7	1.0	2.0
welfare (Welfare aggregate)	36,430	233,678.3	15,959.5	2,359,978.1
hhweight (Household weights)	36,430	144.3	68.7	324.0
related_to_head (Household head)	36,430	2.7	1.0	6.0
age (Age)	36,430	23.0	0.0	99.0
gender (Gender)	36,430	1.5	1.0	2.0
c4 (Education)	36,430	1.4	1.0	3.0
Generated (Household size)	36,430	6.2	1.0	24.0
Wave 2011				
ident (Household ID)	29,676	2,845.1	1.0	5,532.0
seuil (2011)	29,676	276,400.0	276,400.0	276,400.0
urbrur (Urban)	29,676	1.6	1.0	2.0
welfare (Welfare aggregate)	29,676	287,539.8	15,168.7	5,990,228.0
hhweight (Household weights)	29,676	213.8	23.4	1,429.4
related_to_head (Household head)	29,676	2.9	1.0	6.0
age (Age)	29,676	21.9	0.0	98.0
gender (Gender)	29,676	1.5	1.0	2.0
c4 (Education)	29,676	1.4	1.0	3.0
Generated (Household size)	29,676	7.4	1.0	35.0

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

Table 2: Poverty ratio and Distribution of the Poor by regions

Regions	Poverty Ratio			Distribution of the Poor		
	2006	2011	Change	2006	2011	Change
Centrale	77.7	80.2	2.5	12.9	14.1	1.2
Kara	75.0	68.4	-6.6	16.2	15.0	-1.2
Lome	24.5	27.9	3.4	7.9	6.2	-1.7
Maritime	69.4	41.2	-28.3	23.7	19.6	-4.1
Plateaux	56.2	64.7	8.5	20.9	25.8	4.9
Savanes	90.5	90.8	0.3	18.4	19.3	0.9
Total	61.7	58.7	-3.0	100.0	100.0	0.0

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

Table 3: Quantile Per Capita Consumption Expenditure

		Year 2006	Year 2011
Urban	10 th Quantile	144,004.1	167,441.6
	20 th Quantile	184,083.0	216,777.0
	50 th Quantile	290,604.3	351,470.4
	80 th Quantile	460,669.9	610,578.4
	90 th Quantile	594,479.2	796,881.3
Rural	10 th Quantile	92,568.7	84,261.4
	20 th Quantile	112,628.3	106,787.0
	50 th Quantile	170,174.9	183,461.9
	80 th Quantile	265,760.8	320,216.7
	90 th Quantile	344,520.5	425,088.3
National	10 th Quantile	99,864.2	95,627.5
	20 th Quantile	125,037.3	126,353.5
	50 th Quantile	202,237.8	237,935.9
	80 th Quantile	339,929.7	433,826.3
	90 th Quantile	449,446.5	602,944.3

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

Table 6: Consumption Regressions

Independent variables	2006 Urban (A)	2006 Rural (B)	2011 Urban (C)	2011 Rural (D)
Log of household size	-0.782*** (0.04)	-0.643*** (0.03)	-0.599*** (0.06)	-0.357*** (0.06)
Log of household size squared	0.03** (0.01)	-0.033*** (0.01)	0.095*** (0.02)	0.020 (0.02)
Share of children 7-16 years old	-0.434*** (0.05)	-0.401*** (0.03)	-0.152* (0.08)	-0.215*** (0.07)
Share of male adults	-0.561*** (0.05)	-0.430*** (0.04)	-0.038 (0.08)	-0.044 (0.08)
Share of female adults	-0.244*** (0.05)	-0.167*** (0.04)	0.353*** (0.09)	0.212** (0.09)
Share of Elderly (>=60 years old)	-0.429*** (0.08)	-0.380*** (0.05)	-0.311** (0.13)	-0.390*** (0.10)
Region Centrale	(base)	(base)	(base)	(base)
Region Kara	-0.035 (0.03)	0.022 (0.02)	-0.001 (0.05)	0.064* (0.03)
Region Lome	0.364*** (0.02)	-	0.315*** (0.04)	-
Region Maritime	0.081** (0.04)	0.130*** (0.02)	0.356*** (0.04)	0.510*** (0.03)
Region Plateaux	0.219*** (0.03)	0.274*** (0.02)	0.334*** (0.05)	0.115*** (0.03)
Region Savanes	-0.121*** (0.04)	-0.088*** (0.02)	-0.127*** (0.05)	-0.335*** (0.03)
Log of household head's age	0.013 (0.03)	-0.014 (0.02)	0.200*** (0.05)	0.043 (0.04)
household head Gender (Female)	-0.005 (0.02)	-0.031** (0.02)	-0.061* (0.03)	-0.125*** (0.03)
Without schooling or incomplete primary	(base)	(base)	(base)	(base)
Primary school completed	0.101*** (0.02)	0.079*** (0.01)	0.169*** (0.03)	0.102*** (0.03)
Secondary school completed	0.242*** (0.02)	0.231*** (0.02)	0.462*** (0.03)	0.343*** (0.03)
Intercept	13.688*** (0.10)	13.448*** (0.07)	12.224*** (0.17)	12.468*** (0.14)
Number of observations	2,600	4,900	2,439	3,052
Adjusted R2	0.70	0.63	0.35	0.36

Source: Based on the ADePT Poverty and Inequality module using the QUIBB survey 2006 and 2011

Notes: Standard errors in parentheses and significance levels: ***p<0.01, **p<0.05, *p<0.10

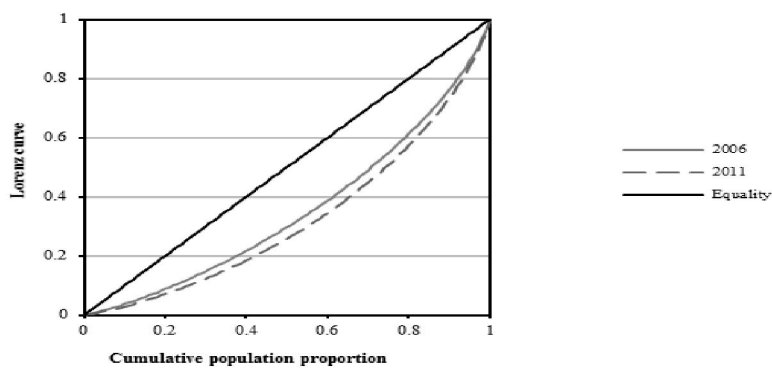


Figure 1: Lorenz Curves for Rural Togo, 2006 and 2011

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

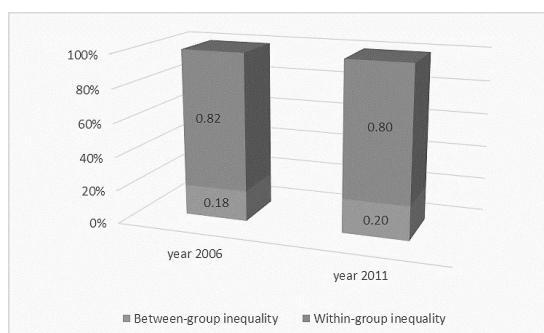


Figure 2: Decomposition of inequality across urban-rural

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011

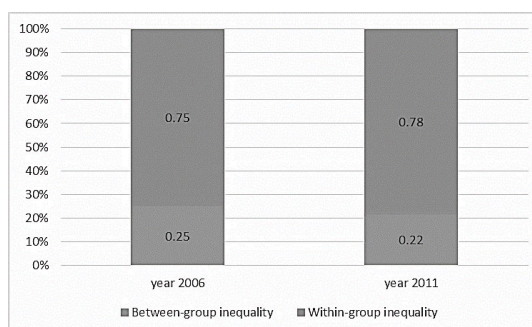


Figure 3: Decomposition of inequality across regions

Source: Based on the ADePT Poverty and Inequality module using the QUIBB Survey for 2006 and 2011