Income Inequality and the Poverty of Youth in the Douala Metropolis of Cameroon

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Abstract—More and more youth are doubtful of making a satisfactory labour market transition because of the present global economic instability and this is more so in Africa of the Sahara and metropolis like Douala. We use the explanatory sequential mixed method: in the first phase we randomly administered 610 questionnaires in the Douala metropolis respecting the population size of each division and its gender composition. We constructed the questionnaire using the desired values for living a comfortable life in Douala. In the second phase, we purposefully selected and interviewed 50 poor youth in order to explain in detail the initial quantitative results. We obtain the following result: The modal income class is 24,000-74,000 frs Central Africa Franc (CFA) and about 67% of the youth of the Douala metropolis earn below 75,000 frs CFA. They earn only 31.02% of the total income. About 85.7% earn below 126,000 frs CFA and about 92.14% earn below 177,000 frs CFA. The poverty-line is estimated at 177,000 frs CFA per month based on the desired predominant values in Douala and only about 9% of youth earn this sum, therefore, 91% of the youth are poor. We discovered that the salary a youth earns influences his level of poverty. Low income earners eat once or twice per day, rent low-standard houses of below 20,000 frs, are dependent and possess very limited durable goods, consult traditional doctors when they are sick, sleep and gamble during their leisure time. Intermediate income earners feed themselves either twice or thrice per day, eat healthy meals weekly, possess more durable goods, are independent, gamble and drink during their leisure time. High income earners feed themselves at least thrice per day, eat healthy food daily, inhabit high quality and expensive houses, are more stable by living longer in their neighbourhoods, like travelling and drinking during their leisure time. Unsalaried youth, are students, housewives or unemployed youth, they eat four times per day, take healthy meals daily, weekly, fortnightly or occasionally, are dependent or homeless depending on whether they are students or unemployed youth. The situation of the youth can be ameliorated through investing in the productive sector and promoting entrepreneurship as well as formalizing the informal sector.

Keywords—Income, inequality, poverty, metropolis.

I. INTRODUCTION

A lot of youth in Cameroon suffer from poverty and low-income because most of them are either unemployed or underemployed. A good number of them in Douala survive by working in the precarious informal sector since they receive little or no help from either the state or their family members. As a result, they are poorly nourished, have little or no access to health services, have limited durable goods, leisure activities and domestic comfort.

Every year, approximately 121 million adolescents turn 16 years old — 89% of which are located in developing regions — and can enter the world's labour market. But many of those who want to work are unable to find jobs. For countries affected by youth jobs crisis and an expanding supply of young labourers in need of work — the risk of even higher levels of unemployed youth and a 'lost' generation will remain very high. Therefore, such countries will not have the one-time opportunity of boosting economic growth through a rising share of working-age persons in their population [1]. With stagnant economies and low economic growth rates in most countries, demand for labour has been low or declining resulting in high levels of unemployment. Employment prospects for youth are poor when adults cannot find employment.

According to [2], compared to other regions of the world, Africa has the highest segment of young people in its population, 36.7% in 2000, compared to 27.3% for the world. It is estimated that young people make up 50% of the population of most countries. Youth aged 15-24 years make up between 19% and 23% of the population of the majority of African countries. In absolute terms it was estimated that there was about 122 million youth on the African continent. The median age of African youth is between 16-20 years and the female population aged 15-24 years is higher than that of males. The size of the working age population in Africa is growing faster than new jobs creation and as a result youth suffer from income inequality. Mmafe [3] shows that in many African countries the disparity in income is quite significant, for example, in Lesotho the per capita income of the top 20% of the population is 22 times higher than that of the bottom 20%; equally, it is 19 and 18 times for South Africa and Kenya, respectively. Levels of income and the nature of income distribution also explain socio-economic vulnerability. High inequalities in the distribution of incomes are closely related to the increase incidents of poverty. Income poverty is a lack of the required income to acquire a specified amount of food and services.

Economic inequality is the disparity in the distribution of assets, wealth, or income among individuals and/or populations. It can also be described as the gap between the rich and the poor, income inequality, wealth disparity, wealth and income disparity, or the wealth gap. Scientists measure income inequality among individuals using the ratio of the average income of the richest 10% to the poorest 10% [4].

Making an analysis of cross-country differences in the level of poverty and inequality using distributional statistics, [5] states that there is a very strong positive cross-country correlation between levels of poverty and inequality and there is a negative correlation between income growth and initial

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level of inequality, that is, income increases less in countries with higher levels of inequality and the higher the income, the lower the poverty risks. According to [6], inequality and poverty affect each other directly and cross country studies have indicated that on average, there is stability in within country inequality over time, or it changes too slowly to make a significant difference in poverty reduction [6]. Excessive inequality adversely affects people's quality of life which leads to a higher incidence of poverty and affects progress in health and education and it leads to crime. Changes in income distribution no matter how small can have considerable effects on poverty

According to Foster et al. [7], despite the fact that poverty and inequality are distinct concepts, they are very closely connected as they summarize diverse aspects of the same phenomenon, that is, distribution. Inequality pays attention to the entire spread of a distribution whereas poverty mainly focuses on the lower part of the distribution and is mainly concerned with identifying the poor and summarizing this into an indicator that show levels of poverty in a society.

Cornia [8] states that inequality within the majority of developing countries has been rising and sharply in some cases. He states that the last decades have witnessed a widespread and symmetric rise in within-country inequality in developing countries due to the adoption of financial liberation and adjustment policies. Equally, as in developed countries, the rise in income inequality appears strongly associated with more frequent domestic financial crises. In addition, the persistence of inequality at high levels in several developing economies has made it more difficult to reduce poverty. It is a fact that if inequality is greater, it will be less likely for economic growth to reduce poverty – regardless of the rate of economic growth. Moreover, scientists generally agree that excessive inequality can stunt growth itself.

In this paper, we establish the link that exists between income disparity and poverty among the youth. That is, this paper examines how income inequality affects the well-being of youth in the metropolitan city of Douala in terms of feeding habits, health seeking behaviour, domestic comfort, leisure activities and geographical mobility.

In 1986, Cameroon was struck by a severe economic crisis – the prices of cash crops dropped, petroleum income drastically declined. According to [9], the World Bank estimated the reduction to about 60% in terms of exchange between 1986 and 1993. The drop in volume reduced the national income three times between 1985 and 1994. Due to this, urban unemployment and the informal sector of the economy grew rapidly. Asiatic and Nigerian competition made Cameroon to lose both external and internal markets. To remedy the situation, the franc CFA was devalued and the salaries of mostly civil servants were reduced. The average salary of administrative workers changed from 134,000 frs CFA to 88,000 frs CFA which was a 35% reduction. Equally, the average income dropped by 50% [12]. There was also a reduction of about -20% less than that of the public sector incomes of the workers of the two other main sectors (parastatals and the formal private sector). Inequality in towns was reduced by the relative stability of the nominal income of the informal sector. Equally, the prices of goods and services skyrocketed. The question we asked was how the reduction of salary and the increasing prices of goods and services affected the participation of the residents of Douala in its main values. In other words, how has low income affected the quality of life of the Douala residents?

This work examines how reducing domestic consumption due to the deterioration of the job market has led to income disparity and how income variation affects the participation of the various age-groups for 610 participants in the city of Douala.

We formulated the following hypotheses: Income difference positively influences people's usage of the main values in Douala which are domestic well-being, health seeking behaviour, nutrition manners and free time activities. In other words, the higher people earn, the more they participate in the major values in the city of Douala. We focus on whether there is any positive relationship between income and poverty. In other words, does the amount the youth in the city of Douala earn influence their feeding habits, domestic comfort, health seeking behaviour, geographical mobility and leisure activities considering that everything in the urban area is monetised?

II. Methodology

A. Sampling Design

We examine poverty as a relative concept, that is, it is relative to a society and epoch. Sociologically speaking, people are poor when they cannot attain the desired values of their society [9].

A preliminary survey, or what is often call a pilot survey, was carried out using 30 randomly selected respondents whom we asked about their psychological and social essentials which were needed for ordinary living patterns in Douala before formulating the questionnaire. The desired values—things one needs in Douala to live a better life—were obtained from the pilot survey and were grouped into four appropriate categories: domestic comfort, feeding habits, health seeking behaviour, and leisure activities.

B. Measurement

The above components were measured in the following ways: Domestic comfort was broken down into three components:
1. Homeownership: measured using homeownership, rent, depending on someone, living in a family house (it refers to people without financial resources who have not yet left the family house). They depend on family members for their survival as well as homelessness, which is perceived in Cameroon as a lack of an abode no matter the wealth of the neighbourhood. (There are hardly neighbourhoods exclusively for a group of persons in Douala. Rich and poor people share the same neighbourhoods)
2. Possessions of durable goods: measured using possession of refrigerator, gas cooker, personal cars, computer, etc.

3. Home quality: measured using enough electrification both inside and outside of the compound, having potable water at home, privacy (one's neighbours hardly get one's secrets), air conditioning and other qualities of their homes that respondents mentioned outside of the above-desired qualities.

The second category—feeding habits—was broken down into three components: variation of food (how often respondents change the type of food they consume), eating a balanced diet (how often they took all the classes of food). These were measured using the indicators: daily, weekly, fortnightly, and monthly. The third component was the number of times people eat per day which was measured as being once, twice, thrice, and four times.

In health seeking behaviour, respondents were asked of what they did when they were sick (visit the hospital, consult a trade-practitioner, administered self-medication, or use all the above). Finally, we measured leisure activities using reading, visiting friends, sport, travelling, visiting recreational centres, watching television, drinking, etc.

The range of salary in Douala was measured using the lowest and highest incomes in Cameroon: 23,514 frs and 465,850 frs CFA, respectively, following the trade convention which pays employees the highest in Cameroon. However, there are many workers in Cameroon who earn far above the maximum range and below the minimum range.

The above is different from the measure of poverty in the Western world where one is considered poor if he has less than 60% of the average household income (adjusted for household size). Deduction is made for the following housing costs: rent (gross of housing grant), water taxes, mortgage interest payments, structural insurance payment, ground rent and service changes. The relative measure remains the standard and official measure of poverty despite its limitations, and it correlates strongly with other poverty measures.

C. The Explanatory Sequential Mixed Method

According to Creswell [10], we used a two-phase method in which we collected quantitative data in the first phase, analysed the results and then used the results to plan or build onto the second, qualitative phase. Using the quantitative results, we purposefully selected 50 respondents for the qualitative phase. The overall intent of this design was to have the qualitative data explain in more details the initial quantitative results.

D. Sampling Method and Sampling Size Determination

We considered individuals and not households. We administered questions in all the sub-divisions and all the neighbourhoods in each division. We therefore had a full grasp of the sampling frame.

We used the stratified sampling method in which the number of questionnaires administered in each of the five sub-divisions in Douala was in relation to its population. That is, the population of each sub-division was divided by the total population of the five sub-divisions in Douala and then

multiplied by the sample size which was 610. Equally, using the same above mathematical application, we ensured that the number of females or males selected was equivalent to their percentage in the general population. For example there are 1,926,513 people in Douala and there are about 223214 in Douala 1 making 11.5% of the total population of Douala, and we selected 76 respondents from this division making 12.5% of the total sample size of 610.

The population percentage in Douala 2 is 13.57% and we selected 13.1% of our sample from that division. Out of the 33.55% of the total population in Douala 3, we selected 32% of our sample from it. We selected 12% of our sample from Douala 4; it makes up 13.01% of the total population of Douala. Finally in Douala 5, we selected 30.5%, about 28.29% of the Douala population live there.

From the above, we made an effort as much as possible to ensure that the number of respondents selected from each division was equivalent to the percentage of the total number of people living there out of the total population in Douala. However we did not have an exact number as it was in the general population because people are mobile commuting from one neighbourhood to the other to do other activities such as work, visit, attend meetings etc. For example in Bonanjo, more than 60% of the people who are there during working days come from other neighbourhoods. Therefore when administering questionnaires in it, we had many more respondents who live in other neighbourhoods than those who were living in Bonanjo.

We ensured that the percentage of each sex selected was equivalent to its percentage in the general population. Douala has about 956883 (49.67%) females and 969630 (50.33) males out of the total population of 1,926,513. More so, we chose 300 (49.18%) females and 310 (50.82%) males out of the total sample size of 610. We administered questionnaires in nearly all the neighbourhoods in Douala: Akwa, Bali, Bepanda, Bonaberi, New-Bell etc.

We administered the questionnaires by directly contacting and handing them to the respondents (self-administered) and we helped the non-literate ones to fill them. We ensured that the respondents understood that the research was for an academic purpose because it contained some sensitive questions. This assurance created an atmosphere that allowed the respondents to give truthful answers.

E. Statistical Analysis

The SPSS (statistical Package for Social Sciences) software which is a recognised program for analysing data in the social sciences was used to process our data. Attention was particularly paid to descriptive and inferential analyses. We presented each aspect of the operational framework in five stages: presentation of figures in table, followed by description of the tables and then interpretation and analysis. We did the inferential analysis by considering the chi-test and percentage technique in which we compared the specific category to the general population that is, the independent variable to the percentage obtained in the total population or sample and then explained their sociological implications. We put a + when the

percentage of the independent variable is more than the percentage of the total column which shows the difference it makes in the whole. The red in our tables indicates areas of significance. We calculated the correlations that exist between them to show that it was not just a random variation.

III. INCOME INEQUALITIES AMONG YOUTH IN THE METROPOLITAN CITY OF DOUALA

Table I indicates that the modal income class (the mode of a distribution is the income level with the largest frequency) of cases is 24,000-74,000 frs CFA and about 67% of the youth of Douala from the different regions earn below 75,000 frs CFA. They earn only 31.02% of the total income. About 85.7% earn below 126,000 frs CFA and about 92.14% earn below 177,000 frs CFA. The mean income of the population is 79,798 frs CFA. This indicates that a predominant majority of young people in Douala earn very low income. We asked whether the

low salary they earned really helped them to participate satisfactorily in the predominant values of Douala which are domestic comfort, health seeking behaviour, good feeding habits and leisure activities which are not free. This indicates that due to lack of social safety nets such as unemployment benefits in poor countries, there is lack of access to wage and salaried employment, frequent job losses, as well as high employment-to-population ratios in the poorest regions which means that the poor must work more vulnerable to poverty and less vulnerable to unemployment [11]. There is therefore a link between lower unemployment rates and higher vulnerable employment rates [1]. The poor cannot bear unemployment and as a result, they struggle to earn an income through own-account activities or irregular spontaneous wage jobs. More and more people live and work hazardously by doing a series of short-term jobs, with unstable occupational identities, social protection or protective regulations [1].

TABLE I
SIZE DISTRIBUTION OF INCOME IN THE CITY OF DOUALA

Income class (in 1000 frs CFA)	Frequency	Percentage Frequency	Cumulative Percentage Frequency	Total income (in million frs CFA)	Percentage of Total Income	Cumulative Percentage of Income
0-23	157	25.7	25.7	1806	3.96	3.96
24-74	252	41.3	67	12348	27.06	31.02
75-125	114	18.7	85.7	11400	24.99	56.01
126-176	32	6.44	92.14	4832	10.59	66.6
177-227	22	3.6	95.74	4444	9.7	76.3
228-278	5	.8	96.54	1265	2.77	79.07
279-329	8	1.3	97.62	2432	5.33	84.4
330-380 and above	20	3.3	100	7100	15.56	100
Total households	610	100		45627	100	

The active population in Cameroon is more and more involved in the informal sector. In 1983 there were more than 65% salaried jobs which dropped to 63% in 1987 and below 50% in 1993 [9]. The public service has been creating fewer jobs from 50% before 1985 to below 10% in 1992 and it stagnated between 15% and 20% from 1985 to 1992. This stagnation led to the growth of the informal sector from about 40% to around 85% in 1992. In 1992, more than 80% and 5% of jobs were created in the informal and public sectors, respectively. Therefore job creation in the public service has been contracting. Nanche [13] indicates that 19.3% of Douala dwellers work in the informal sector which is a very precarious sector due to lack of decent jobs.

As Table I indicates, about 25.7% of youth earn below 23,000 frs CFA as compared to 12.9% of the general population [14]. Most of them are the jobless who do unstable and precarious jobs in order to survive. Aerts et al. [12] point out that the rate of unemployment in Cameroon indicates the difficulties Cameroonians and especially the youth have in finding a job. In 1990, Cameroon registered 7.3% unemployment which increased to 24.6% in 2001. Cameroon is one of the countries in Africa which has the highest unemployment rate even more than that in Latin America. A large proportion of Cameroonians suffer from poverty on a daily basis. The National Institute of Statistics indicates in 2013 that the active youth of 15-24 years are mostly affected

than those between 25-34 years [9]. The rate of national unemployment for these two age ranges is 10.2% and 7.7%, respectively, as compared to the urban and rural rates which are 15.5% and 4.3%, respectively.

It is noticeable using the concentration measure of income inequality that people whose income is above 177,000 frs CFA constitute the upper quintile of Douala households and they earn about 33.36% of the total income as compared to 50.89% of the general population [14]. They made up only 9% of the total population
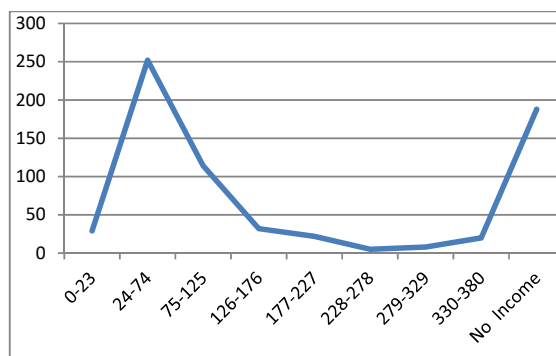

Fig. 1 The Frequency of Respondents' income in thousands

Fig. 1 indicates that a bulk of the youth in the city of Douala

earn between 24,000 to 74,000 frs CFA (41%), 4.8% earn below 24,000 frs and 19% have no income. Only 9% of the youth in Douala earn about 177,000 frs and above. It is quite difficult to cope in the city of Douala using such a low salary. Therefore, the youth in Douala are what the ILO [11] describes as the working poor because they live below the poverty line and work in order to survive. Unlike adults, they have a higher likelihood of being among the working poor. African youth live in poverty because unlike those in the developed world where there are support structures, such as the family which exists to economically support the young jobseeker as he or she searches for work, in low-income countries like in Cameroon, this support structure does not exist for the majority of the population; as a result, many young people simply cannot afford to be unemployed and are likely to take up any work that becomes available, regardless of working conditions or whether or not the job fits his/her education or skills-base [11].

IV. INCOME DIFFERENCE AND POVERTY

In this section, we examine whether income differences influence poverty in terms of feeding habits, domestic comfort, health seeking behaviour, leisure activities.

A. Income and Feeding Habits

Food supply in many African countries has significantly improved over the last 20 years. Despite this increase in available calories per person, there has not been a comparable reduction in undernourishment. Chronic undernourishment has been a major problem across the continent and more than one in four people are undernourished. Sub-Saharan Africa has more than 230 million undernourished people.

Aerts et al. [12] stress that Cameroonians are finding it difficult to satisfy their basic needs. The economic crisis caused the basket of food consumption per head to reduce by 30% in volume in 10 years because food selection or overall diet quality is often influenced by the prices of goods and an individual's socioeconomic position.

In this section, we establish the relationship that exists between income differences and eating habits. That is, we find out whether feeding habit such as meal frequency, eating a balanced diet, meal variation and eating enough vegetables and fruits is influenced by income variation.

Income Inequality and Feeding Frequency

From Table II, we can classify youth into three classes: the lower income youth who earn below 24,000 frs CFA and those who earn between 24,000 frs CFA and 74,000 frs CFA. This category of people mostly eat once and rarely twice per day. These individuals are those who are really crushed by poverty because about 51.9%, and 44.8% of them who earn below 24,000 frs CFA and between 24,000 and 74,000 frs, respectively complained of lacked of means to afford for another meal. More so, 18.5%, 25.2% said that they ate once per day because it was a habit. That is, they have been eating like that for long and they are already used to it, as some sort of accepting of their fate by considering it normal. When we

asked them why they had made it a habit, they simply would say "on va faire or what will one do" meaning they thought there was nothing they could do to change their fate. Only about 7.4% and 3.5% of them respectively complained of lack of time.

TABLE II
INCOME INEQUALITY AND FEEDING FREQUENCY

Person's Income	Feeding Frequency				Total
	one Times	Two Times	Three Times	Four Times	
0-24000	+5	+14	10	0	29
	11.6%	5.6%	3.6%	0.0%	4.8%
24000-74000	+28	+110	104	10	252
	65.1%	44.0%	37.1%	27.0%	41.3%
75000-125000	2	+49	+59	4	114
	4.7%	19.6%	21.1%	10.8%	18.7%
126000-176000	0	+15	+16	1	32
	0.0%	6.0%	5.7%	2.7%	5.2%
177000-227000	0	5	+15	+2	22
	0.0%	2.0%	5.4%	5.4%	3.6%
228000-278000	0	1	+4	0	5
	0.0%	0.4%	1.4%	0.0%	0.8%
279000-329000	0	3	+4	+1	8
	0.0%	1.2%	1.4%	2.7%	1.3%
330000-380000	0	7	+12	+1	20
	0.0%	2.8%	4.3%	2.7%	3.3%
No income	6	44	49	+17	116
	14.0%	17.6%	17.5%	45.9%	19.0%
Missing	2	2	7	1	12
	4.7%	.8%	2.5%	2.7%	2.0%
Total	43	250	280	37	610
	100.0%	100.0%	100.0%	100.0%	100.0%

The second type is the intermediate income earners who earn between 75,000 frs and 125,000 frs CFA and those who earn between 126,000 frs and 176,000 frs CFA. They mostly eat two to three times daily. They are between poverty and wealth; their salary is not sufficient to take them throughout the month. That is, their salary often finishes before the end of the month and some of them would take a loan to survive throughout the month and others would diversify their activities.

About 34% and 26.7% of them respectively complained of lack of means and 9.4% and 20.6% of them respectively complained of lack of time. While, 29.2% and 23.3% of them respectively said it was a habit certainly because they had been eating like that for long and their system was already adapted to it. About 10%, 25%, 12.5%, 5% of those who earn between 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and 330,000 frs CFA, respectively, complained of lack of means.

The third category is those who earn about ≥ 177,000 frs CFA per month. They hardly eat once per day. Our research shows that 0% of them eat once per day. 22.7%, 20%, 37.5% and 35% of those who earn between 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and ≥ 330,000 frs CFA eat twice per day. Therefore, as compared to other categories, only 22.7% of them eat twice a day. About 68.2%, 80%, 50% and 60% of those who earn between 177,000-

227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and 330,000 frs CFA eat thrice per day. Therefore a vast majority of those who earn ≥177,000 frs have a very appreciable feeding habit. Only 10%, 25%, 12.5%, 5% of those who earn between 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and ≥ 330,000 frs CFA, respectively, complained that their feeding frequency was affected by lack of means. While, 60%, 25%, 25%, 45% of those who earn between 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and ≥ 330,000 frs CFA said that, the number of times they ate daily was because they wanted to be healthy. Equally, 30%, 50%, 50% and 40% of those who earned between 177,000-227,000 frs 228,000-278,000 frs, 279,000-329,000 frs and ≥ 330,000 frs CFA, respectively, mentioned that the number of times they ate daily was influenced by habit. That is, they had been used to their daily meal frequency since they had been feeding themselves like that over and over again. A significant number eat three and four times per day. However, a surprising aspect is the fact that the unemployed (17.1%) eat four times per day. About 51.7%, 27.6% and 5.2% of them are students and the unemployed respectively who are dependent and 5.2% of them are housewives who prepare the food themselves.

There is a very significant relationship between income and feeding frequency (Pearson Chi-Square Value = 57.663, Degree of Freedom = 27 Asymp. Significance = 0.001) and person's income and reasons for frequency (Pearson Chi-Square Value = 0.146, Degree of Freedom = 12 Asymp. Significance = 0.001).

Cindy et al. [16] explain that low-income adults hardly consume the recommended amounts of whole grains, fruits, vegetables, fish, and nuts/seeds/legumes. They mostly eat processed meats, sweets, and bakery desserts and sugar-sweetened beverages.

Food and nutrition insecurity occurs when a fraction of the population lacks assured physical, social and economic access to safe and nutritional food to satisfy dietary needs. It also exists when people lack access to sufficient amounts of safe and nutritious food, and therefore are not eating enough for an active and healthy life because of the unavailability of food, inadequate purchasing power or inappropriate utilization of food at household level. This indicates that there is chronic food insecurity in Douala Ethiopian Government [17]. More so, food security, according to the UN Food and Agriculture Organization (1996) [18], is when all people have physical, social and economic access to sufficient, safe and nutritious food that satisfies their alimentary needs and the food they like for an active and wholesome life at all times. There are four dimensions of this definition: food availability, food accessibility, food utilization, and the stability of both availability and access. A household which does not have one or all of these dimensions is considered food-insecure. Considering this, the people of Douala do not have access to sufficient amounts of safe and nutritious food.

Diaz [19] indicates that the poorer sectors of all countries take low vitamins and minerals. Poor people living in Europe are economically disadvantaged and as a result, they consume mostly fatty foods and processed meats than high-income groups. Equally in the USA, income and education level influence diet quality. As income decreases and food budget reduces, people stop consuming healthier foods (whole grain, lean meat, dairy products, fresh vegetables and fruits) because energy-rich foods such twice as starches, sweets and fats are cheaper and satisfy them more. Equally, rapid income changes have helped the Chinese to change the in-take of high-carbohydrate, fatty and energy density food. In the United Kingdom, poor households hardly meet the United Kingdom dietary guidelines because they less likely consume whole meal bread and vegetables and more likely consume fat spreads and oils, pizza, processed meats, whole milk and table sugar [19].

Oxfam [20] shows that highly processed food which has long been commonly available in urban areas is also increasingly spreading to rural areas. The problem people face is that of 'bad access to good food and good access to bad food.' Therefore, there is a need to tackle the phenomenon of 'nutritional insecurity'.

Multivariate Analysis of a Person's Income, Feeding Frequency and Age

Table III shows that as age increases, the number of people who have an income decreases and those who have higher income increases. Therefore, the question to ask is: does the income difference within age groups make an impact? It will be interesting to check the results presented in Table IV.

Table IV shows that there is a correlation in two age categories between income and consumption frequency. This suggests that the apparent relationship between income and feeding frequency poorly affects the underlying relationship between education level and feeding level.

Income and Meal Variations

Only those who earn about 177,000 frs and above have a statistically significant daily variation of meals which does not apply to those who earn below 177,000 frs CFA. For example, 44.8%, 49%, 53.2%, 53.1%, 68.2%, 60%, 87.5% and 85% of people whose salary is below 24,000 frs, 24,000-74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs, 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and ≥ 330,000 frs, respectively, eat a variety of meals daily. From the above, it can be seen that as income increases, the percentage of those who vary their meal daily equally increases. Therefore, income is an important factor for meal variation or a blockage for repeating the same meal for days.

About 5.5%, 44.2%, 19.6%, 5.5%, 3.7%, 1.2%, 0%, 10% of respondents whose income is below 24,000 frs, between 24,000-74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs, 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and ≥ 330,000 frs, respectively, vary their meals weekly. As salary increased, only very few respondents consumed a variety of meals weekly.

It was discovered that roughly 6.8%, 43.2%, 25%, and 4.5% of residents who earn below 24,000 frs, 24,000- 74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs, vary their meal after

two and three days and 0% of Douala dwellers whose income is above 177,000 frs vary their meals daily, because as seen above, they do so mostly daily.

TABLE III
PERSON'S INCOME, FEEDING FREQUENCY AND RESPONDENT'S AGE

Respondent's Age			Feeding Frequency				Total
			One Time	Two Times	Three Times	Four Times	
Below 21	Person's Income	0-24000	1	1	1	0	3
		24000-74000	0	2	5	0	7
		75000-125000	1	0	1	0	2
		No income	0	12	10	4	26
		Missing	0	0	1	1	2
		Total	2	15	18	5	40
21-25	Person's Income	0-24000	2	5	3	0	10
		24000-74000	7	18	29	4	58
		75000-125000	0	5	8	3	16
		126000-176000	0	3	2	0	5
		177000-227000	0	1	1	0	2
		279000-329000	0	0	1	0	1
		No income	3	17	22	9	51
		Missing	0	2	2	0	4
		Total	12	51	68	16	147
26-30	Person's Income	0-24000	2	7	2	0	11
		24000-74000	12	48	40	3	103
		75000-125000	0	21	22	0	43
		126000-176000	0	2	4	1	7
		177000-227000	0	0	5	0	5
		228000-278000	0	1	1	0	2
		330000-380000	0	6	5	0	11
		No income	3	10	14	2	29
		Missing	1	0	2	0	3
		Total	18	95	95	6	214
31-35	Person's Income	0-24000	0	1	2	0	3
		24000-74000	7	31	18	0	56
		75000-125000	0	13	12	0	25
		126000-176000	0	6	5	0	11
		177000-227000	0	3	4	1	8
		228000-278000	0	0	1	0	1
		279000-329000	0	1	2	0	3
		330000-380000	0	0	4	1	5
		No income	0	4	2	2	8
		Missing	1	0	1	0	2
		Total	8	59	51	4	122
36-40	Person's Income	0-24000	0	0	2	0	2
		24000-74000	2	11	12	3	28
		75000-125000	1	10	16	1	28
		126000-176000	0	4	5	0	9
		177000-227000	0	1	5	1	7
		228000-278000	0	0	2	0	2
		279000-329000	0	2	1	1	4
		330000-380000	0	1	3	0	4
		No income	0	1	1	0	2
		Missing	0	0	1	0	1
		Total	3	30	48	6	87

Some 3.4%, 2.8% and 18.2% of people who earn below 24,000 frs, between 24,000-74,000 frs, and 75,000-125,000 frs, respectively, vary their meal monthly, while none of those respondents who earn above 126,000 vary their meals

monthly. Only 1.2% of those who earn between 24,000-74,000 frs per month vary their meals yearly. That is, they eat almost the same meals throughout the year.

TABLE IV
CHI-SQUARE TESTS FOR PERSON'S INCOME, FEEDING FREQUENCY AND
RESPONDENTS' AGE

Respondent's Age		Value	df	Asymp. Sig. (2-sided)
Below 21	Pearson Chi-Square	22.218[a]	12	0.035
21-25	Pearson Chi-Square	15.949[b]	21	0.773
26-30	Pearson Chi-Square	30.861[c]	24	0.158
31-35	Pearson Chi-Square	44.861[d]	27	0.017
36-40	Pearson Chi-Square	14.488[e]	27	0.976

Although more and more persons consume a variety of meals as their income increases, there is no correlation between income and the eating of a variety of meals. (Pearson Chi-Square Value = 43.475, Degree of Freedom = 54 Asymp. Significance = 0.847).

Income and Eating a Balanced Diet

Generally speaking, 13.7%, 12.7%, 62.3%, 10.9% and 0.3% of those surveyed defined a balanced diet as a well-prepared meal, eating a variety of meals, a meal containing all the classes of foods and other definitions, respectively. While, 51.7%, 54.4%, 61.3%, 74.2%, 86, 4%, 80%, 87.5%, 75%, 69.9% and 66.7% of those who earn below 24,000 frs, between 24,000-74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs, 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and 330,000 frs, have no income and those who did not indicate their income, respectively, defined a balanced diet as a meal containing all the classes of food. Therefore, the knowledge of what constitutes a balanced diet is better understood as income increases since higher income earners tend to care more about the types of food they consume, unlike low income earners who have little or no choice. That is, they are more inclined to eat to fill their stomach to keep on living rather than to be healthy, and so, prefer quantity to quality. In order to obtain accurate answers during the research, when necessary we defined what is meant by a balanced diet for those who did not know. However, knowledge of a balanced diet is independent of income (Pearson Chi-Square Value = 53.495, Degree of Freedom = 45 Asymp. Significance = 0.180).

Only an insignificant number of low-income earners eat a balanced diet daily as shown in Table V. A fairly significant number of those who earn below 24,000 frs consume a balanced diet weekly, fortnightly, monthly, and yearly. It is almost the same case for those who earn between 24,000-74,000 frs CFA. Therefore their consumption of a balanced diet is not fixed.

Although intermediate income earners also eat a balanced diet significantly daily, those who earn between 75,000-125,000 frs CFA also make a statistically significant impact in eating it once in two weeks and monthly. Those who earn between 126,000-176,000 frs CFA eat a balanced diet significantly between daily and weekly.

TABLE V
INCOME INEQUALITY AND CONSUMING A BALANCED DIET

Person's Income	Balanced Diet Frequency							Total
	Daily	Once a week	Once in two weeks	Once per month	Once per year	After 2 and 3 days	Occasionally	
0-24000	6	+11	+4	+1	+1	+4	+2	29
	2.6%	5.0%	6.6%	5.6%	7.7%	11.4%	7.1%	4.8%
24000-74000	76	+103	25	+11	+7	+17	+13	252
	32.5%	46.6%	41.0%	61.1%	53.8%	48.6%	46.4%	41.3%
75000-125000	+47	40	+14	+4	2	5	2	114
	20.1%	18.1%	23.0%	22.2%	15.4%	14.3%	7.1%	18.7%
126000-176000	+14	+15	1	0	0	0	+2	32
	6.0%	6.8%	1.6%	0.0%	0.0%	0.0%	7.1%	5.2%
177000-227000	+15	4	2	0	0	1	0	22
	6.4%	1.8%	3.3%	0.0%	0.0%	2.9%	0.0%	3.6%
228000-278000	+3	1	0	0	0	1	0	5
	1.3%	0.5%	0.0%	0.0%	0.0%	2.9%	0.0%	0.8%
279000-329000	+5	+3	0	0	0	0	0	8
	2.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%
330000-380000	+15	2	2	0	0	0	+1	20
	6.4%	0.9%	3.3%	0.0%	0.0%	0.0%	3.6%	3.3%
No income	+52	34	+11	1	+3	+7	+8	116
	22.2%	15.4%	18.0%	5.6%	23.1%	20.0%	28.6%	19.0%
Missing	1	8	2	1	0	0	0	12
	0.4%	3.6%	3.3%	5.6%	0.0%	0.0%	0.0%	2.0%
Total	234	221	61	18	13	35	28	610
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

High income earners, that is those who earn 177,000 frs and above, eat a balanced diet mostly daily. To put it in perspective, 20.7%, 29.1%, 41.4%, 43.8%, 68.2%, 60%, 50%, 75% and 45.2% % of those who earn below 24,000 frs, between 24,000-74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs, 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs, > 330,000 frs and those who earn nothing, respectively, eat a balanced diet daily. Those individuals with no income depend on their family members for the consumption of a balanced diet because most of them are students.

As it can be seen in Table V, as income increases, the number of people who eat a balanced diet daily fairly increases as well. Youth become more and more conscious of what they eat as their salary increases. Although those with no income eat significantly four times per daily, they eat more quantity than quality food because only 45.2% of them eat a balanced diet daily. There is a very significant relation between income and eating a balanced diet (Pearson Chi-Square Value = 145.612, Degree of Freedom = 63 Asymp. Significance = 0.000)

Those who eat vegetables and fruits slightly more than the others are those who earn ≥ 177,000 frs. Higher income earners also slightly dominate in eating vegetables and fruits after two and three days although the difference is not too clear. The intermediate salary earners dominate in eating vegetables and fruits weekly. Roughly 13.8%, 6.9%, 10% and 6.3% of those who earn below 24,000 frs, between 24,000-74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs eat enough vegetables and fruits monthly whereas high income earners hardly eat it monthly.

Although those who mostly eat vegetables and fruits daily are high income earners and they also hardly eat it monthly, no clear conclusion can be drawn because many low income earners also eat it nearly as many times as them. There is absolutely no correlation between income and eating vegetables and fruits. (Pearson Chi-Square Value = 55.975, Degree of Freedom = 54 Asymp. Significance = 0.401).

B. Income and Domestic Comfort

In this section, it is aimed determined whether there is any relation between income difference and domestic comfort in terms of whether respondents were homeowners, renters, homeless, live in a family house or depended on others. After this, we determine if income influences the value of one's home for those who are homeowners, as well as the amount that renters pay for accommodation. Next, we examined whether the possession of durable goods is equally affected by income inequality. The aim is to understand whether the non-possession of durable goods was because they lacked the means or because it was unnecessary to own them. This is because the lack of something does not necessarily signify poverty.

Income Inequality and Homeownership

From Table VI, there is a very significant relation between income and homeowners' status. (Pearson Chi-Square Value = 188.598, Degree of Freedom = 45 Asymp. Significance = 0.000). A significant number of low-income earners and those who have no income rely on family members because they do not have any form of stable accommodation. While, 34.5% and 37.5% of those who earn < 24,000 frs and those with no income are dependent. Those who earn between 24,000-74,000 frs CFA significantly have the highest number of

people with unstable accommodation because they are unable to rent or own a home. Intermediate income earners significantly rent; that is, 64.5% and 74.2% of those who earn between 75,000-125,000 frs CFA and between 126,000-176,000 frs rent.

TABLE VI
INCOME INEQUALITY AND HOMEOWNERS' STATUS

Person's Income	Homeowners' Status						
	Own a home	Rent	Dependent	Homeless	Family House	Camp	Total
0-24000	1	17	+10	0	1	0	29
	1.5%	4.7%	8.8%	.0%	1.9%	0.0%	4.8%
24000-74000	27	+166	39	+4	16	0	252
	39.7%	45.6%	34.5%	44.4%	29.6%	0.0%	41.3%
75000-125000	18	+74	10	1	+11	0	114
	+26.5%	20.3%	8.8%	11.1%	20.4%	0.0%	18.7%
126000-176000	3	+23	5	0	1	0	32
	4.4%	6.3%	4.4%	0.0%	1.9%	0.0%	5.2%
177000-227000	+7	11	1	0	+3	0	22
	10.3%	3.0%	0.9%	0.0%	5.6%	0.0%	3.6%
228000-278000	+1	3	0	0	0	+1	5
	1.5%	0.8%	0.0%	0.0%	0.0%	50.0%	0.8%
279000-329000	+2	4	0	0	+1	+1	8
	2.9%	1.1%	0.0%	0.0%	1.9%	50.0%	1.3%
330000-380000	+3	+14	2	0	1	0	20
	4.4%	3.8%	1.8%	0.0%	1.9%	0.0%	3.3%
No income	5	45	+42	+4	+20	0	116
	7.4%	12.4%	37.2%	44.4%	37.0%	0.0%	19.0%
Missing	1	7	4	0	0	0	12
	1.5%	1.9%	3.5%	0.0%	0.0%	0.0%	2.0%
Total	68	364	113	9	54	2	610
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

TABLE VII
PEOPLE'S INCOME AND WORTH OF HOME

Person's Income	Worth of Home						Total
	Below 2 million	2.1 million-4.1 million	4.2 million-6.2 million	6.3 million-8.3 million	8.4 million-10.4 million	Above 10.5 million	
0-24000	0	+1	0	0	+1	0	2
	0.0%	7.7%	0.0%	0.0%	12.5%	0.0%	3.0%
24000-74000	5	+8	+5	+5	3	0	26
	35.7%	61.5%	41.7%	45.5%	37.5%	0.0%	38.8%
75000-125000	+4	1	3	3	+3	+3	17
	28.6%	7.7%	25.0%	27.3%	37.5%	33.3%	25.4%
126000-176000	+1	0	0	+1	+1	0	3
	7.1%	0.0%	0.0%	9.1%	12.5%	0.0%	4.5%
177000-227000	1	0	+2	+1	0	+2	6
	7.1%	0.0%	16.7%	9.1%	0.0%	22.2%	9.0%
228000-278000	0	0	0	0	0	+1	1
	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	1.5%
279000-329000	0	0	+2	0	0	0	2
	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	3.0%
330000-380000	0	0	0	0	0	+3	3
	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	4.5%
No income	+2	+3	0	+1	0	0	6
	14.3%	23.1%	0.0%	9.1%	0.0%	0.0%	9.0%
Missing	1	0	0	0	0	0	1
	7.1%	.0%	0.0%	0.0%	0.0%	0.0%	1.5%
Total	14	13	12	11	8	9	67
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

High income earners significantly own homes more than intermediate income earners; 31.8%, 20%, 25% and 15% of those who earn 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and 330,000 frs, respectively, own

homes. Most of them significantly own homes and only very few of them rent. Table VI also shows that high income earners also have a significant number of persons who live in a family house despite the fact that they are quite older than those of the other income categories. For example, 36.4%, 20%, 37.5%, 25% of those who earn 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and 330,000 frs range in age from 31-35 years and 31.8%, 40%, 50% and 20% of those who earn 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs and 330,000 frs range in age from 36-40 years. It was aimed to determine why some individuals continue to live in a family house; thus, it was necessary to check whether it was due to parents' occupation, region of origin, marital status, or family type. The results show however that none of these factors applied to the participants of this study. Thus, it is an area that may be considered as future domain of research. However, those who earn extremely high income, 330,000 frs and above have an insignificant number of those who live in a family house. 15%, 70%, 10%, 0%, 5% of them own a home, rent, are dependent, homeless, and live in a family house. However, the higher the cost of a home, the fewer the number of youth who will own one. Approximately, 20.9%, 19.4%, 17.9%, 16.4%, 11.9% and 13.4% of youth own homes worth below 2 million, 2.1-4.1 million, 4.2-6.2 million, 6.3-8.3 million, 8.4–10.4 million and above 10.5 million, respectively.

It is evident that low income earners hardly own expensive houses which are worth ≥ 10.5 million. It can be concluded that only very few intermediate income earners own homes worth ≥ 10.5 million. According to this research, 100% of those who earn between 228,000-278,000 frs and those who earn 330,000 frs CFA and above own homes worth ≥ 10.5 million, while 100% of those who earn between 279,000-329,000 frs own homes worth 4.2-6.2 million frs CFA. This is because we had only two of them in our sample since most of the youth in Douala are low-income earners. Therefore it can be concluded that the most expensive home owned by the youth in the city of Douala are mostly owned by those of them who are high-income earners. It is worth noting that only 1.48% of youth own homes ≥ 10.5 million. All of those surveyed who earn below 24,000 frs CFA, and those who earn between 75,000-125,000 frs CFA and 66.7% of those who earn 330,000 frs and more own homes worth below 20 million. While, 100% and 33.3% of those who earn between 177,000-227,000 frs CFA and 330,000 frs CFA and above own homes worth between 20-30 million frs CFA. However, most expensive homes are owned by high-salary earners.

Income and Cost of Rent

In this section, we examine the correlation that exists between youth's income and the amount they pay as rent as well as the level of their dependence on others for the payment of their rent.

From Fig. 2, it is noticeable that some of the youth in the city of Douala live in a low-standard house, representing 213 (34.9%) of our sample size of 610. Only 24 (3.93%) of the sample pay rent of around 42,000-62,000 frs CFA and 3.9% of

them pay 74,000-94,000 frs CFA, as 1.1%, 1.3% and 0.5% pay rent of 74,000-94,000 frs CFA, 95,000-115,000 frs CFA and above 116,000 frs CFA, respectively. It is noticeable that only 59.7% (364) of the youth in the city of Douala pay rent and about 40.3% are dependent, that is, are living under someone certainly because of a lack of means. However, it is interesting to find out the relationship that exists between the cost of rent and respondents' income. The question is to find out the extent to which a respondent's income influences the amount they pay as rent. We also establish the relationship which exists between renting more expensive houses and income increase.
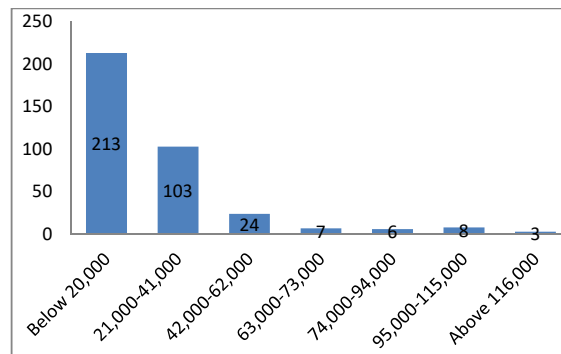

Fig. 2 The cost of youth's lodging

Just looking at the significance, it is noticeable that as income increases, youth of the city of Douala rent much more expensive homes. Therefore, those who pay rent mostly below 20,000 frs are low-income earners and those who have no income. Those who dominate in paying rent between 21,000-41,000 frs are the intermediate income earners and equally those who earn between 177,000-227,000 frs CFA. Those who dominant in paying rent between 42,000-62,000 frs CFA are high income earners especially those who earn between 228,000-278,000 frs and 279,000-329,000 frs. The most expensive lodging in the city of Douala is paid by the youth who earned ≥ 330,000 frs.

The results provide a clear indication that as income increases, domestic comfort equally rises as wealthier youth look for more and more comfortable lodging while poor youth, who are in the majority, lodge themselves in low-income housing. There is a very positive relationship between income and the amount of rent youth pay (Pearson Chi-Square Value = 302.197, Degree of Freedom = 54 Asymp. Significance = 0.000).

With regard to who pays their rent, 71.3%, 10.9, 14.4% and 3.4% of the youth in the city of Douala pay their rent themselves, have their rent paid by their parents, spouse or friends or share and jointly paid their rents with others, respectively. This shows that a large number of young Douala residents depend on no one for the payment of their rent. They have to try themselves.

TABLE VIII
INCOME INEQUALITY AND COST OF RENT

Person's Income	Cost of Rent							Total
	Below 20,000	21,000-41,000	42,000-62,000	63,000-73,000	74,000-94,000	95,000-115,000	Above 116,000	
0-24000	+13	4	0	0	0	0	0	17
	6.1%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%
24000-74000	+135	26	4	2	0	0	0	167
	63.4%	25.2%	16.7%	28.6%	0.0%	0.0%	0.0%	45.9%
75000-125000	29	+34	+9	0	0	+2	0	74
	13.6%	33.0%	37.5%	0.0%	0.0%	25.0%	0.0%	20.3%
126000-176000	2	+16	0	0	+2	+2	0	22
	0.9%	15.5%	0.0%	0.0%	33.3%	25.0%	0.0%	6.0%
177000-227000	1	+7	+3	+2	0	0	0	13
	0.5%	6.8%	12.5%	28.6%	0.0%	0.0%	0.0%	3.6%
228000-278000	1	0	+1	0	0	+1	0	3
	0.5%	0.0%	4.2%	0.0%	0.0%	12.5%	0.0%	0.8%
279000-329000	0	0	+3	+1	0	0	0	4
	0.0%	0.0%	12.5%	14.3%	0.0%	0.0%	0.0%	1.1%
330000-380000	1	2	1	2	3	3	2	14
	0.5%	1.9%	4.2%	28.6%	50.0%	37.5%	66.7%	3.8%
No income	+28	12	2	0	+1	0	+1	44
	13.1%	11.7%	8.3%	0.0%	16.7%	0.0%	33.3%	12.1%
Missing	3	2	1	0	0	0	0	6
	1.4%	1.9%	4.2%	0.0%	0.0%	0.0%	0.0%	1.6%
Total	213	103	24	7	6	8	3	364
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

TABLE IX
INCOME AND THE POSSESSION OF DURABLE GOODS

Person's Income	Durable Good								Total
	Refrigerator	Cooker	Radio	Television	Personal Car	Computer	Telephone	Motorcycle	
0-24000	4	8	15	17	2	1	+20	2	27
	1.5%	2.7%	4.0%	3.7%	2.2%	0.6%	4.8%	3.0%	4.63%
24000-74000	82	101	150	182	17	47	165	23	238
	30.6%	34.5%	39.9%	40.1%	19.1%	26.0%	39.8%	34.3%	40.82%
75000-125000	+58	+65	+76	+92	13	40	81	+17	113
	21.6%	22.2%	20.2%	20.3%	14.6%	22.1%	19.5%	25.4%	19.38%
126000-176000	+21	+20	20	+27	+8	+12	+25	3	31
	7.8%	6.8%	5.3%	5.9%	9.0%	6.6%	6.0%	4.5%	5.31%
177000-227000	+13	+16	+16	+18	+8	+10	11	+7	22
	4.9%	5.5%	4.3%	4.0%	9.0%	5.5%	2.7%	10.4%	3.77%
228000-278000	+3	+3	3	+4	+1	+3	+4	+2	5
	1.1%	1.0%	0.8%	0.9%	1.1%	1.7%	1.0%	3.0%	0.86%
279000-329000	+6	+5	+7	6	+4	+5	5	+3	8
	2.2%	1.7%	1.9%	1.3%	4.5%	2.8%	1.2%	4.5%	1.37%
330000-380000	+14	+15	+14	+17	+10	+15	+18	+3	20
	5.2%	5.1%	3.7%	3.7%	11.2%	8.3%	4.3%	4.5%	3.43%
No income	+62	+55	67	+85	+25	+43	+78	7	108
	23.1%	18.8%	17.8%	18.7%	28.1%	23.8%	18.8%	10.4%	18.52%
Missing	5	5	8	6	1	5	8	0	11
	1.9%	1.7%	2.1%	1.3%	1.1%	2.8%	1.9%	0.0%	1.89%
Total count	268	293	376	454	89	181	415	67	583
	45.97%	50.26%	64.49%	77.87%	15.27%	31.04%	71.18%	11.49%	100%

Around 58.8%, 77.2%, 84.3%, 85.7%, 50%, 100%, 100%, 78.6% and 31.8% of those who earn below 24,000 frs, between 24,000-74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs, 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs, 330,000 frs and those who have no income respectively, pay their rent themselves without any external help from parents and friends. The above indicates that as income increases, youth in the city of Douala become more and more independent. Our research shows that depending on one's parents or relatives or spouse for the payment of one's rent has no relation with income. Those with no income, respectively, jointly pay their rent with others. There is a very strong relationship between who pays rent and income (Pearson Chi-Square Value = 86.992, Degree of

Freedom = 36, Asymp. Significance = 0 .000).

Income and the Possession of Durable Good

In this sub section, our pre-occupation is to find out whether income inequality among the youth in the city of Douala influences the possession of durable goods. It will be interesting to find out whether young high-income earners in the city of Douala possess more durable goods than those who are middle- and low-income earners. We also find out whether their lack of ownership of durable goods is due to a lack of means or because they do not need them or simply because of lack of space. One cannot be considered poor for not purchasing something they do not need, only when they are unable to buy what is needed to make his life more comfortable because of a lack of means; these are the goods Douala residents considered indispensable if one has to live a comfortable life. Therefore, a lack of such items greatly impaired respondents' comfort and as a result, someone who lacks them is considered poor. However, it is worth noting that our calculation is based on cases; that is, on respondents and not on responses. Usually when basing results on responses, the final figure often surpasses the sample size and can be difficult to say exactly how many of them in each income modality possess durable goods which are often visible when dealing with respondents than with responses. This falls under the framework of multiple response analyses where respondents were allowed to choose as many responses as possible. For example in question 28, we asked respondents "which of the following durable goods do you possess?" A respondent could possess all of them as well as he could also lack all of them or possess a few of them.As it can be observed, as income increases more and more respondents possessed a refrigerator and a cooker. The durable good that most of the youth in Douala possess is a radio probably because it is much more affordable than a refrigerator and a cooker. However, more of those who earn higher salary possessed it more than low salary earners. Owning a television is even more common than owning a radio certainly because a television entertains more than a radio. However, more intermediate and high-income earners have a television than low-income earners. The intermediate-income earners owned it as much as high-income earners.

It is owning a private car that poses a real headache to the youth of the city of Douala. Only high-income earners enjoyed it, especially those who earned between 228,000-278,000 frs and 279,000-329,000 frs. The possession of a computer increases with income. The higher a respondent's income, the higher the probability that he would own a computer probably because it does not really serve like a radio and television and it is comparatively more expensive and more useful to academics and students.

No durable goods are more common to possess in Douala than owning a mobile phone. Since it is much cheaper to own a mobile phone than other durable goods; with 10,000 frs CFA, one can purchase a phone. There was no significant difference between the various income groups and owning a mobile phone. Although those who earn high income own more motorcycles, there is no clear distinction from the other salary levels.

Generally, 87.7% of the youth in the city of Douala do not possess the above durable goods because of poverty; that is, they did not have the means to buy them. Results show that, 92.6%, 88.1%, 70.6%, 81.8%, 50.0% 100.0% 88.5% of those who earn below 24,000 frs, between 24,000-74,000 frs, 75,000-125,000 frs, 126,000-176,000 frs, 177,000-227,000 frs, 228,000-278,000 frs, 279,000-329,000 frs, 330,000 frs and above and those who earn nothing, respectively, do not possess them because they complain of a lack of means. Although there are some differences in terms of the salary ranges, generally, one can conclude that if Douala's youth had more means they would possess more goods since only 0.6% and 11.4% of them, respectively, said they do not possess them because of a lack of space and because they did not need them.

Income and Home Quality

Having potable water at home is also a problem for the youth who live in low-standard houses, and they also had to cover long distances to access clean drinking water.

A well-electrified house in this research means illuminating the inside and outside parts of it. Our findings show that most of the houses of our respondents were poorly illuminated especially low-income earners' homes. Most of the houses rented by the youth in the city of Douala are found in areas where there is standing-water. It affects all of them no matter how much rent they pay. Only about 31.47% were not damp.

Living in an air-conditioned house was considered a luxury for the youth surveyed, despite the scorching heat in the city of Douala. They indicated that they desire to have it but lack the means.

The youth surveyed said they lacked privacy in their homes, suggesting they could not keep their secrets from their neighbours since they lived in crowded neighbourhoods. Only an insignificant number said they could safeguard their privacy from their neighbours.

C. Income Effects on Health, Leisure Activities and Spatial Mobility

In this section, we find out the extent to which income inequality influences health seeking behaviour, leisure activities and spatial mobility. That is, the movement from one neighbourhood to another.

Income and Health

In this sub-section, our preoccupation is to find out whether income inequality influences where respondents treat themselves. Do they have the tendency of going to the hospital, for self-medication, for taking traditional treatments or using other methods of treatment?

We discovered that because of a lack of means, those youth would choose to stay at home since they could not afford to go to the hospital. They also preferred to buy cheap smuggled drugs since they are cheaper there than in the pharmacy and hospital. A good number also said they would go to the hospital but would buy the prescribed medicine where they are

sold cheaply to the poor.

When they are sick, 26.36% of respondents said first of all they would stay at home and consult street doctors. If the sickness persists, some said they would then try traditional medicine before going to the hospital. To most of the low-income earners, the hospital is always the last resort. Most of those who resort to other methods of treatments such as prayers and exorcism are the low-income earners.

Mark [21] states that the monetization of the health sector has forced poor patients to seek medical attention at health centres in a more debilitated conditions, having suffered from their illnesses until they could not neglect care any longer. Poor patients hardly buy prescribed medication and in order to economize, they buy less than what was prescribed and they hardly return as requested for follow-up. They prefer the less expensive self-medication and appeal to "traditional" practitioners. Mark [22] also affirms that although modern health services are located nearby, the urban poor are significantly not given good medical care as compared to other urban households. As a consequence, the urban poor in some slum neighbourhoods often face severe health risks.

Income and Leisure Activities

In this sub-section, we try to find out whether there is any connection between income difference and leisure activities. In other words, are respondents of a certain income category more inclined to a particular leisure activity than others or better still, does income difference have any influence on people's activities?
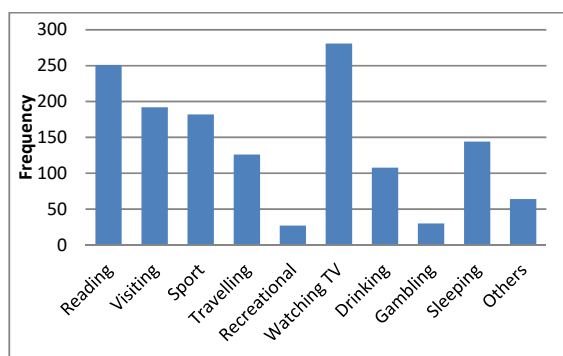

Fig. 3 Youth's leisure activities

Fig. 3 indicates that 20%, 17.9%, 13.7%, 13%, 10.2%, 9%, 7.7%, 2.1% and 1.9%, respectively, of the youth in the city of Douala will watch television, read, visit people, do sport, sleep, travel, drink, gamble and visit recreational centres during their leisure time. However, most youth participated in activities that do not incur expenditure during their free time like watching television, reading, visiting people, doing sport etc., since a good number of them are poor and earned between 24,000 to 74,000 frs CFA (41%), 4.8% earned below 24,000 frs and 19% earn nothing. Very few respondents are able to travel, visit recreational centres and drink since these activities involve spending money.

The respondents who read the most during their leisure are

those who earn between 228,000-278,000 frs, followed by those with no income and then those who earned between 126,000-176,000 frs and by those who earned 75,000-125,000 frs CFA. From the above information, no clear-cut conclusion can be drawn; however, low-income earners spend the least amount of their leisure time reading. The results indicate that those who visit people the most during their leisure time, are the respondents who earned 330,000 frs CFA followed by those who earned below 24,000 frs. However, visiting is not a function of income.

Those who earned ≥ 330,000 frs dominate in doing sport followed by those who earn below 24,000 frs as well as those who earn 279,000-329,000 frs. Although our results do not show any clear relation between income inequality and doing sport, high income earners somehow dominate.

Those who dominate in travelling during their leisure time are the respondents who earned between 177,000-227,000 frs, followed far behind by those who earned ≥ 330,000 frs. Since those who earn between 228,000-278,000 frs and 279,000-329,000 frs hardly travelled during their leisure time, it is difficult to conclude that high income earners travel more than others during their leisure time. Therefore there is no relation between travelling during ones leisure time and income. Those who visit recreational centres the most during their leisure time are those who earned between 279,000-329,000 frs followed by those who earned below 24,000 frs. No clear-cut conclusion can be drawn from those who watch television during their leisure time. This research glaringly shows that those respondents who drink the most during their leisure time are high-income earners due to the fact that beer is expensive in Cameroon and low-income earners cannot afford to. The results show that those respondents who significantly gamble the most are low and middle-income earners, and those who have no income. Those who sleep the least during their leisure period are those who earned ≥ 330,000.

Income Effects on Spatial Mobility

The research findings indicate that most youth lack stability, noticeably the low-income earners; they continually move from one neighbourhood to another while, intermediate income earners are slightly less stable with regard to changing neighbourhood than high salary earners. The results show that high income earners are slightly more stable in their neighbourhoods than others.

Although as income increases, the stability to remain in one's neighbourhood slightly increases; there is no statistical relation between the duration of living in a neighbourhood and income difference (Calculated value = 30.820, difference = 27 and significance 0.279). However, 78% of the unstable youth are those who rent and who pay rent below 20,000 frs. Those who own homes and live in the family house are more stable than others.

V. POVERTY LINE

From the above income categories, it is clear that the youth who earn above 177,000 frs have a much more comfortable life than the other groups. Therefore, to live comfortably in the

city of Douala, youth need about ≥ 177,000 frs CFA. Unfortunately, only about 9% of the youth in the city of Douala earn this sum. Youth who are significantly below the poverty-line are those who are < 21 years, 21-25 years, those with low-level of education as well as divorcees, widow(ers), informal sector workers, farmers, students, the unemployed, housewives, and security agents, etc. Therefore 91% of them are poor. The conditions of intermediate income earners are slightly better than those of low-income earners but not as good as those of high-income earners, since they hardly possess all the durable goods and their homes do not have the desired quality. Unsalaried youth are in extremes since some are students who live in good conditions with their parents or guardians while the remainder are those who live in extreme poverty. Therefore, the poverty incidence or poverty rate among the youth of the city of Douala is 91%, considering that only 9% of youth are above the poverty-line; this result suggests that the rest are below it, which means that they do not live a comfortable life in the city of Douala. Therefore, the youth in the city of Douala are highly affected by poverty.

Poverty depth is the relative gap between the poverty threshold and the average expenditure of household. As already seen above, the poverty threshold is 177,000 frs CFA and the average expenditure per person is 111,195 frs CFA. Therefore, the depth of poverty is 65,805 frs CFA.

VI. YOUTH POVERTY AND INCOME CATEGORIES

In this section we examine how income differences affect the well-being of the youthful population. The respondents in this study were divided into the following income categories: unsalaried youth, low-income youth, intermediate-income and high-income youth.
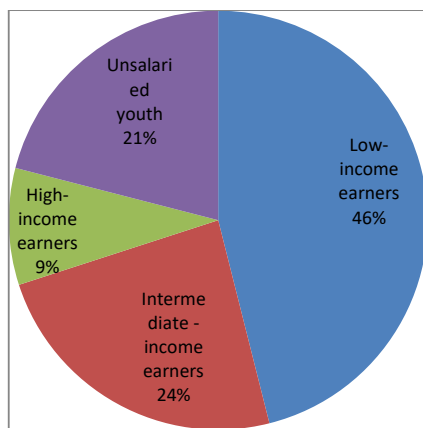

Fig. 4 The categorization of youth's earnings

Nanche [14] in his book chapter: *Income Inequality, Poverty and Economic Reforms in Douala-Cameroon,* identifies four categories of income: the low-income earners, intermediate-income earners, high-income earners and those who earned nothing at the end of the month. These categories are similar to the ones identified in this study.

A. Unsalaried Youth

Those who have no income make up about 21% of the youthful population of Douala. They are relatively younger; they are significantly below 21 years and between 21-25 years of age. They consist of the unemployed, housewives and 60% of them are students. As for the level of their education, they significantly have the primary school level, advanced level and some are graduates. Conversely, for them to be healthy, they significantly eat four times a day because it has become a habit since they are significantly dependent. They mostly take a variety of meals, eat a balanced diet, eat enough vegetables and fruits daily except those who are not dependent and who live in extreme poverty. They own relatively cheaper homes of below 2 million and between 2-4 million. Those who are students live in good quality houses and enjoy all the durable goods except radio. They also reside relatively longer in their neighbourhoods and were probably born there.

The unemployed earn an average salary of 62,500 frs per month and they eat either once, twice or four times per day because of lack of means and cooking utensils, they take a variety of meals weekly and fortnightly, eat a balanced diet weekly and occasionally, eat enough vegetables and fruits weekly, yearly and occasionally. They consult a traditional doctor, stay at home or take other forms of treatment when they are sick. They are dependent and homeless, their homes are worth < 2 million, 6.3-8.3 million and they pay rent of ‹20,000 and 21,000 – 41,000 frs CFA, their homes do not have any of the desired qualities and they significantly possess a computer. Equally, they live about 1-2 years in their neighbourhoods and love reading, travelling and drinking during their leisure time.

B. Low-Income Earners

The low-income earners are slightly older than the unsalaried youth and relatively younger than the others. They are mostly between 21-25 years and 26-30 years and are uneducated or have low academic qualification which is hardly above the Ordinary Level. They make up two sub-salary categories: those who earn < 24,000 frs CFA and who equally make up 1.48% of the youth in Douala and 41.31% of the youth earn between 24,000-74,000 frs CFA: they make up a large majority of the youth in Douala: They are mostly gig employees and have unreliable work jobs such as in small businesses, are housewives, security agents and some work in the informal sector. They do not have stable feeding habits: their feeding habits fluctuate a lot. For example, they significantly eat either once or twice per day and significantly vary their meals, eat a balanced diet and consume enough vegetables and fruits weekly, monthly and mostly occasionally because their precarious lowly-paid jobs do not permit them. Their rent is < 20,000 frs CFA.

Those who earn < 24,000 frs significantly depend on others, and those who earn between 24,000-74,000 frs significantly are considered homeless and have no stable accommodation. Those who are homeowners own low-cost houses. Significantly, their houses lack all the qualities the youth in Douala desired such as security, potable water, air-condition,

privacy, etc. They significantly have only radio, telephone and television, and hardly possess other durable goods. Their instability is not only manifested in their meals but also in their longevity in their neighbourhoods. Compared to the other groups, they hardly live longer than above six years in their neighbourhoods. They keep on moving from one neighbourhood to the other probably searching for a better life and cheaper lodgings. Whenever they are sick, they either consult a traditional healer or stay at home and take self-medication by consulting street doctors. They prefer sleeping and gambling and may do sport during their leisure time.

C. The Intermediate-Income Earners

The intermediate-income earners consist of those who earn between 75,000-125,000 frs CFA and are 18.9% of the youth population, while those who earn between 126,000-176,000 frs CFA comprise 5.23%. These are youth who are either uneducated or have varied academic qualifications such as the ordinary level, advanced level and are also significantly graduates and postgraduates. They significantly do unstable work in the informal sector, private sector, are liberal professionals and are even civil servants, especially those who earn between 126,000-176,000 frs CFA.

Just like low-income youth, they do not have a stable eating habit. They fluctuate between two and three meals per day unlike the low-income youth who significantly eat between one or two meals per day because of lack of time and due to habit. They comparatively eat better than low-income earners, they have good eating habits because they consume a balanced diet, vary their meals and take enough fruits and vegetables weekly, fortnightly, occasionally and sometimes daily but hardly monthly. They rent, own homes and live in a family house. Their homes are hardly above 10.5 million CFA. However, they possess more durable goods and live in more quality houses unlike low-income earners. They also experience an unstable life in terms of spatial mobility. They hardly reside more than six years in their neighbourhoods just like low-income youth.

Comparatively those who earn between 126-176,00 frs CFA participate comfortably in the predominant values than those who earn between 75,000-125,000 frs CFA because they significantly vary their food weekly, their homes possess all the desired qualities and they significantly possess all the durable goods except a radio. They hardly live in a family house. Whenever they are sick, they will like to consult a traditional doctor and when the sickness persists, they go to the hospital. At times, they will try all the possible options: they start with self-medication, and if their illness persists, will consult a traditional doctor and finally go to the hospital. They like drinking, visiting recreational centres and gambling during their leisure time, and at times, they do sport.

D. The High-Income Category

The high-income category consists of youth who generally earn above 177,000 frs. They make up only 7.38% of the youthful population in Douala. They consist of youth with higher academic qualifications such as the advanced level and they consist of graduates and postgraduates. Very few of them are youth with other lower qualifications such as the Ordinary Level, First School Leaving Certificate and even the uneducated but who operate successfully in the informal sector. They hardly work in the informal sector because they have good jobs in the private and public sectors, and some are liberal professionals.

High-income earners have a very good frequency of eating, unlike the intermediate salary earners, and have made it a habit to consume a meal at least three times a day in order to be healthy. Their problem is not that they cannot afford food but that they lack the time to consume meals. They also eat qualitatively because they mostly take a balanced diet; they eat a variety of meals, enough vegetables and fruits daily.

They have better domestic comfort because they live in the most expensive houses and significantly pay rent above 42,000 frs. They are significantly homeowners although some still live in a family house probably because they are still young and only very few of them rent. They own the most expensive homes above 10 million and their homes possess most of the desired qualities and they possess nearly all the durable goods necessary for a comfortable life in Douala. Comparative to the other groups, they are more stable and live longer in their neighbourhoods; that is, for more than six years. They mostly go to the hospital when they are sick, although they may also visit traditional doctors and combine all available treatment options. They like travelling, drinking, doing sport and visiting friends and relatives during their leisure time.

High income earners consume at least three meals per day, will eat healthy food daily, inhabit high quality and expensive houses, be more stable by living longer in one neighbourhood, and like travelling and drinking during their leisure time.

VII. Discussion and Conclusion

The mean income of the population is very low (79,798 frs CFA) as compared to the poverty-line amount (177,000 frs CFA), which is the amount required to live a comfortable life in the Douala metropolis. Therefore, the youth in the city of Douala live unstable lives. This wide gap is due to the following reasons:

In general, unemployed youth in developing countries tend to lack labour market information and job search experience; they often find work through the help of family members and friends. They simply do not know how and where to look for work. The frequent closures and opening of educational institutions over the course of the year encourage young students to enter and exit the labour force as they move between employment, school enrolment and unemployment.

Many youth are unemployed because of a labour market bias against young people. For example, employers are usually reluctant to lay off adult workers first because the cost of dismissing them is higher than that of younger workers, and more so, young employees are likely to have less work experience than adults (i.e. less company funds are invested in them for training purposes, young employees have fewer firm-specific skills and it is more likely that they are on a

temporary contract) and employment protection legislation usually requires a minimum period of employment before it applies, while compensation for redundancy usually increases with tenure. Thus, young workers will be the "first out" [11].

Since youth have shorter work histories, they suffer in times of surplus labour by competing for a limited number of jobs because they are the last to be employed. Equally, they have a disproportionate share of new jobseekers than adults.

The education system in Africa has witnessed a decline in quality and infrastructure at all levels in the last decades. They are providing literacy and numeracy rather than industrial skills and are yet to adjust to the changing demand for knowledge, skills and aptitude required in the labour market. Therefore unemployment in Africa is concentrated among those who have received some education, but who lack the industrial skills required in the labour market making them unattractive to potential employers who prefer skilled and experienced workers [2]. Furthermore, educated youth desire wage jobs in the formal sector and prefer to remain unemployed until they get the jobs they need. Therefore, they stay for long periods at home without any gainful or productive employment. These youth depend on their parents, relatives and friends to survive.

The high degree of the geographical mobility of youth in the form of rapid rural-urban migration has resulted in a concentration of youth in African cities where there are few jobs available in modern sector establishments.

According to [2], a necessary condition for enhancing employment creation is to achieve a high rate of employment for intensive economic growth. This will address the problem of widespread poverty and unemployment in Africa. According to him, the causes of unemployment are: rapid population growth, small private sectors, rapid rural urban migration, inappropriate school curricula and poor quality education that is largely irrelevant to the needs of the labour markets in most African countries. Youth survive by engaging in various activities such as petty trading, casual work, borrowing, stealing, pick-pocketing, prostitution and other illegal activities such as the trafficking of girls and women who are aged between 17-20 years across borders. These women are less educated, often semi-literate or illiterate with little control over their situation, and they are exposed to HIV/AIDS

According to [15], African countries are substantially more urbanized than is probably justified by their degree of economic development. The supply of job seekers far exceeds demand. In addition to persistently pervasive urban unemployment in Africa, particularly among migrant youth, there are a myriad of other problems such as water and houses shortages etc. With stagnant economies and low economic growth rates in most countries, the demand for labour has been low or declining resulting in high levels of unemployment. Employment prospects for youth are poor when adults cannot find employment.

Africa's population is growing at about 2.7-3.0% per annum; the proportion of young people is growing faster than the rate of the growth of the total population. In many African economies, the working age population grows greater than new jobs creation.

The modal income class is 24,000 -74,000 frs CFA and about 67% of the youth of Douala earn below 75,000 frs CFA. They earn only 31.02% of the total income. About 85.7% earn below 126,000 frs CFA and about 92.14% earn below 177,000 frs CFA. The following recommendations can help reduce income inequality:

The government of Cameroon should create jobs for youth through pro-employment macroeconomic policies which foster strong aggregate demand; it should encourage investment in the productive sector. Youth employment can be supported by macroeconomic and growth policies and by encouraging economic diversification and the development of sectors that are good for the creation of employment opportunities for youth. In Cameroon for example, such efforts for employment development could be in the agricultural sector. This is important because it will lead to higher food production and food security which will help to feed the poor in Cameroon because our research shows that only about 45.9% eat three meals per day and about 54.4% take a variety of meals per day, and 38.4% take a balanced diet daily.

Investment in education should be geared towards training to enhance employability and to facilitate the school-to-work transition for the country's youth. If there is sufficient growth, unemployed graduates will more likely be absorbed in to the labour market. Therefore education should not just be theoretical; it should be linked to the needs and demands of sectors. General education should be broader than it is now and of good-quality which will help students find suitable employment. Learning and development of skills should be continuous for workers to adjust to change [11].

About 33.8% of the youth of the Douala metropolis work in the informal sector. The government of Cameroon should improve the labour market integration of youth by targeting labour market policies, combining remedial education and training with work-experience programs and job search assistance. The government should identify and register informal workers through labour inspections. This reform will result in a reduction of informality among young employees.

The government should facilitate the creation of enterprises in the country by removing administrative bottlenecks. Entrepreneurship helps young people to show proof of their economic potential and offers them greater independence, higher income potential and job satisfaction.

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