CHILD POVERTY AND HOUSEHOLD POVERTY IN CAMEROON:
A MULTIDIMENSIONAL APPROACH

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1. CONTEXT OF THE STUDY

- Although it is admitted that poverty is a multidimensional phenomenon, many researchers in Cameroon, still focus only on the monetary aspect. Also, the particular situation of children is still ignored

- Children have some specific needs and the forms of deprivations which affect them may be deferent from those affecting adults (Bastos, 2001)

- According, UNICEF (2000) more than 50% of children living in developing countries are "*poors*"

- The theory of endogenous growth suggests that we can not pretend to fight against poverty if we neglect the formation and accumulation of human capital. And this starts with childhood

- In Cameroon they are many studies focussing on poverty but there is none specifically targeting child poverty .

2. KEYS QUESTIONS

- They are many surveys (MICS or DHS) given several one- dimensional indicators on child poverty in Cameroon. Can we aggregate them into one composite indicators reflecting child wellbeing? (children of less than 5 years)

- Is this is done, what would then be the incidence of child poverty and its determinants ?

- What is the incidence of household multidimensional poverty when using MICS data?

- Is there a relationship between child poverty and household poverty (inherited poverty) in Cameroon?

3. METHODOLOGY (1/5)

There are 3 main issues

1. As it is a multidimensional approach we first have a problem of chosen relevant one dimensional indicators

2. The definition of the method that is going to be used to aggregate the chosen one-dimensional indicators into a synthetic indicator

3. Once this two steps are done then arises the problem of the determination of the poverty line

3.1 Choice of one-dimensional indicators

Child poverty

Following what Gordon *et al* (2004) and Quenum (2007) did we have retained five dimensions with 52 primary indicators

Forms of deprivation	some primary indicators
Nutrition	Is the child nursed with breast milk? Sources of complementary food
Water	Sources of drinking water; water drunk in the household is it potable?; Distance to fetch water
Health	Is the child vaccinated against all the illnesses of EPI? Takes vitamins; Sleeping under a mosquito net; Type of anti-malaria drugs used in case of illness; Parents often go a health centre when the child is ill?
Development of the child	Types of toys; Availability of child's books (or illustrated books); Attending a preschool education program; Child having education activities in the household
Dwelling	Setting of habitat; Environment of the habitat; Situation of the habitat; Density of population; Number of bedrooms

3.1 Choice of one-dimensional indicators

Household poverty

Following what other authors like Ki *et a*l (2004); Foko (2007) did we have retained 5 dimensions with 31 primary indicators

Forms of deprivation	some primary indicators
Water	Source of drink water; Uses of the purification means; Means of purification
Health	Prevention against the malaria; Cares against the malaria; iodation of salt; Level of the health expenses
Instruction	Level of education of the head of the household Level of education of the mother or care taker
Living conditions	Type of toilets; Nature of the wall; Nature of the soil; Nature of the roof; Density of population of the lodging; Number of bedrooms; Source of energy use for lighting; Fuel-oil heart the kitchen; Property of the dwelling house however renting
Inheritance	Means of locomotion; telephonic Means communication; Source of information; Element of comfort; arable earth Possession; Possession of herds

3.2 Aggregation

The aggregation method we have used is the Axiomatic approach developed by Chakravaty in 2002

Like Asselin(2002) we have applied Multiple Component Analysis to derive a composite poverty indicator

$$CPI_i = \frac{1}{K} \sum_{k=1}^{K} \sum_{j_k=1}^{J_k} W_{j_k}^k I_{i,j_k}^k$$

$\begin{cases} I_{i,j_k}^k & \text{a binary varaible that takes 1 if the individual } i \text{ possess madility } j_k \text{ and 0 otherwise} \\ K & \text{nomber of primary indicators} \\ W_{j_k}^k & \text{normalised weight of modality } j_k \; on \, the \, first \, axis \\ J_K & \text{nomber of modalities of indicator } I_k \end{cases}$

NB: Indicators that are in the above equation are only those verifying the First Axis ordering Consistency property.

For child poverty 43 indicators were finally retained out of 52

For household poverty 24 indicators were finally retained out of 31

3.3 Poverty line

Is has been determinate with the Hierarchical classification method. It consist of bringing together individuals according to their similarities.

It is based on the principle of intra-class homogeneity (minimisation) and inter class heterogeneity (maximisation).

With this poverty line we have computer two poverty indictors

Po : poverty incidence ; the proportion of poor individuals

P1: Poverty gap or poverty depth.

4. DATA

The main data that we have used are those of the Multiple Indicators Clusters Survey (MICS) realised in 2006 by Cameroon National Institute of the Statistics.

This survey is part of the third generation of the MICS surveys organized by UNICEF.

Its aim is to produce indicators for the monitoring and the follow-up of child programmes and the Millennium Development Goals (MDGs).

MICS data are well suited to analyze various forms of deprivations undergone by children (Gordon *et al*. 2003).

Cameroon MICS is a nationwide operation. Its sample is stratified according to regions (12) and the area of residence (urban, rural).

The sample consists of 9667 households; 9408 women aged 15-49 years and 6495 children of less than five years old.

5.1 Household poverty

Multidimensional poverty incidence is about 60.6%

	P0	P1	Gini index[*]
	Milieu of residence		
Yaoundé/Douala	8.0	1.6	16.0
Other towns	40.6	15.6	27.1
Milieu rural	87.5	52.0	40.4
	Sex of the head of the household		
Male	59.1	32.2	39.6
Female	65.2	35.2	40.3
	Number of children of than 5 years in the household		
household without a child	58.1	31	38.8
Household of one child	61.2	33.4	40
Household of 2 to 3 children	66.9	38.3	42.5
Household of 3 to 5 children	78.1	42.3	39.7
Household of more than 5 children	66.7	33.5	30.9
	Level of education of the Head of the household		
No education	89.5	57.1	43.8
Primary	70.6	36.7	37.1
Secondary and above	30.8	12.5	26.4

5.1 Household poverty

Like income poverty, multidimensional poverty mostly affects rural populations where 87.5% of households are poor against only 22% in urban areas.

Also multidimensional poverty decreases as the level of education of the head of the household increases.

But Contrary to n income poverty, households headed women are poorer than those headed by men. Also the is no links between "linear" relation between multidimensional poverty and the size of the household. This two facts have also been highlighted by Foko (2005) with ECAM2 data.

However household multidimensional poverty seems to be decreasing as the number of under five years old children increases

5.2 Child poverty

Contrary to household poverty which essentially depends on asset and living conditions, child poverty mostly relies on child health status, the possession of toys and parental affection.

This result is similar to the one obtained by Djoke *et al* on 4 countries of West African Economic and Monetary Union.

The incidence of child poverty is 73.4% with 25.4% suffering of extreme poverty .

Extreme poverty concerns children living in overcrowded household, their health status is very bad they have never had any toys and are often left alone by their parents.

5.2 Child poverty

Variables	Modalities	P0	P1	Gini index[*]
	Yaoundé/Douala	22,0	4,8	12,6
Milieu of residence	Other towns	55,6	15,7	18,4
	Rural	92,5	36,6	24,2
	No education	94,6	44,2	27,9
Level of education of the Child mother/Care taker	Primary	80,2	26,4	21,2
	Secondary and above	42,0	9,9	16,1
	Male	73,1	26,3	24,3
Sex of the child	Female	73,4	27,2	24,9

Child poverty is more important in rural areas.

It is decreasing with the level of education of the mother/care taker.

Children living in the same household with their biological mother are less affected than other children

5.2 Child poverty

Children whose mothers/care takers are aged between 25-39 years are less poor in comparison to those whose mothers/care takers are younger (less than 25 years) or older (40 years and above)

The is no gender effect in child poverty

The size of the household and the number of children living in the household are negatively correlated to child welfare. In fact, child poverty increases when these variables increase.

5.3 Relationship between child poverty and household poverty

		Inherited povrety (household poverty)		
		Non-poor	Poor	Total
Direct Poverty (child poverty)	Non-poor	72,4	3,0	26,8
	Poor	27,6	97,0	73,2
	Total	100,0	100,0	100,0

We can see from this table that there is a strong relationship between child poverty and inherited household poverty. This has been confirmed by Spearman test and also Kendall test. They indicate a correlation of about 74.3%.

However we can not notice that they are 27.6% of children living in non poor households are affected by child poverty.

6. Conclusions

Child poverty has its specificities that are different from household poverty.

Although the is a strong link between the 2. We should keep in mind that more than 25% on children living in non-poor households are poor.

Factors that mostly affects child poverty are variables related to the health status, those related the mother and her presence in the household.

The study recommends the implementation of specific policies in favour of children. For example, the Expended Program on Immunization should be intensified especially in rural areas.

Continue promoting young girls education especially in the northern regions of Cameroon.

And implement of a family code

THANK YOU