Dynamics and Definition of Poverty in the Colombian Andes: Participative vs. Objective approaches

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Abstract

The objective of this study is to examine the consistency of results of a participatory poverty assessment methodology applied in two Colombian watersheds with those from more objective approaches. The results suggest that there is a set of elements that are considered basic to both types of poverty assessment; however at the same time there are others that depend on household and community preferences. Moreover, the results indicate that the concept of poverty is context-specific: a household that is considered poor in one community may not be considered poor in another. The results of the participatory methodology are useful to identify who the poor are, why they are poor, and provide a better understanding of the nature and dynamics of poverty. However, it may not be appropriate to generalize on the basis of the results of such methodologies since they may differ in both nature and magnitude from the results off objective poverty measurements.

Introduction

Although reduce poverty is one of the major challenges of the MDGs, we still don't have the necessary clarity about what it actually is. Standard definitions exist – US1 or US$2 per day, unsatisfied basic needs (NBI), life conditions index (ICV) etc, however it is widely recognized that poverty is complex and includes material and non-material dimensions. Participatory methods have been developed to allow local perceptions to be included in definitions of poverty. These methods, usually applied at the local scale, provide a level of details that goes beyond the objective quantitative measures to show the dynamics of poverty. Therefore, they can be very useful in the design of interventions to reduce the problems of exclusion and poverty.

However, because they are based on local perceptions, the results of participatory assessments from different places are not necessarily comparable, and therefore it may not be appropriate to use information from such assessments to design regional interventions. Similarly, the generalization of conclusions based on the local results is not necessarily appropriate.

This document validates the internal and external consistency of the data on poverty obtained using a participatory method based on local community perceptions for two watersheds in the Colombian Andes. The principal research questions are:

Are the definitions and results obtained consistent with objective measures of poverty?

Are the results consistent with the condition of the study communities?

The results seek to contribute to a better understanding not only of what poverty is, but also of how to use and interpret different types of poverty data. Of

particular interest is to identify the conditions under which different types of information do or do not give consistent results.

The article is organized as follows: Section 2 summarized some of the issues in different types of poverty measurements, and presents the methods used in Colombia. Section 3 describes the study watersheds, and section 4 presents the findings of the poverty analysis and examines the community level data on which these findings were constructed, specifically the community level definitions of poverty and poverty lines. Section 5 summarizes and concludes.

2. Empirical aspects and measurements of poverty in Colombia.

2.1 Objective and subjective approaches of poverty, used methods, advantages and disadvantages.

Poverty is a multidimensional phenomena; the variety of existing concepts is an illustration of this. Poverty dog be conceived ace objective or subjective; ace the necessity of good feeding, or the preferences for certain type of foods independently of their nutritious valued; absolute or relative, the lack of income or of capacities; chronic or temporary, ace consequence of structural or juncture problems in an economy. Finally, poverty could be related to inequality, vulnerability and exclusion in a society. These different concepts that refer to poverty determine the way it is measured, as well as the policies and programs to alleviate it (Lok-Dessallien, 1995).

Objective approaches of poverty, define it from the perspective of a group of normative criteria that determine what is required to overcome poverty. Generally, the measurements of poverty with this approach privilege the measurements of quantitative character, simpler to use and to compare. The subjective approaches of poverty consider individual preferences and people's valuation of goods and services. Subjective measurements use mainly qualitative data that describe the intrinsic characteristics of what is being measured, although it is required to translate them into quantitative data to be able to aggregate them (Lok-Dessallien, 1995).

3

Subjective and objective measurements of poverty can be monetary and non monetary, in turn, the latter can be absolutely or relatively measured (See graphic 1). Next a description is made of the characteristics, advantages and disadvantages of the commonly used methodologies for the study of poverty. For this purpose the methodologies of measurement of poverty developed by the Mission for the Design of a Strategy for the Reduction of Poverty and Inequality, were revised, MDERPD (2006).

Graph 1. Diverse Measurements of Poverty
Source: MERPD, 2006

Indicators of subsistence used in the international context as U$1 a day for indigence and U$2 a day for poverty in purchasing power parity (PPP) for Colombia "although somehow illustrative for effects of international comparisons, they are not conceptually bound to the idea of poverty as a lack of basic necessities, this is because the values of the poverty line do not represent a specific basket of goods and services that a society considers indispensable to live a worthy life, according to its culture, geographical conditions and socioeconomic level. Also, clearly, one or two dollars PPP is not enough to cover the necessities that a country of medium income as Colombia could consider as basic" (MDERPD, 2006, p. 21).[1]

The measurement of absolute poverty used is the Poverty Line, which is calculated based on the value of a representative basket of goods: foods, clothing, transport, etc., for a population of reference that corresponds to the poorest 25%. The value of the basket determines how many people are below the poverty line, according with the basket of minimum requirements. The values of the indicator change as the methodology or the used sources of information are modified (MDERPD, 2006).

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[1] [1] In 2004 U$1 a day PPA was equivalent to $24.137 colombian pesos a month, while U$2 a day PPA to $48.274 colombian pesos a month (MDERPD, 2006, p.20), the minimum legal monthly salary per for that year in Colombia was XXX.

The most used non-monetary objective indicators are the Human Development Index (HDI), the Unsatisfied Basic Necessities Index (NBI), the Conditions of Life Index (ICV) and the SISBEN that won't be approached because of its similarity with the ICV.

The HDI is not precisely an indicator of poverty; it includes the life expectancy index when being born, a compound education index and the per capita income index. The concept of human development is wider and more complex than what this index is able to measure, because it only incorporates three variables out of the multiplicity of elements of human development. For example, participation in the Human Development Report 2004 can be highlighted as an important part of the development, however this variable is not included in the HDI (MDERPD, 2006).

"The Indicator of Unsatisfied Basic Necessities NBI is sometimes qualified as an alternative measurement of poverty; it considers as poor those households or people that have at least one unsatisfied necessity out of the five defined (poverty for NBI) and as in misery those households or people that have at least two unsatisfied necessities (misery for NBI)" (MDERPD, 2006, p. 15). The criteria are: inadequate housing, housing without services, overcrowding in a household, nonattendance of school and high economic dependence. The NBI is able allows to determine what type of lack, of those included in its components, is the one that the households located in a certain place suffer the most. However, it hides the magnitude of the number of people in situation of poverty and misery, since the analysis unit that it uses is the household, without considering the number of people that compose it. Additionally, important necessities of the society are not included, nutrition, for example, which is not included in the NBI (MDERPD, 2006).

Finally, the ICV, developed by the Social Mission of the National Department of Planning (DNP) "tries to give a more integrated and more informative reach to the satisfaction of basic needs and quality of life than the NBI." (MDERPD, 2006, p. 17) It incorporates indicators of physical goods, present and potential human capital, and composition of the household: each variable included in

these indicators has an assigned weight. The ICV is an indicator that is not used to determine which homes are poor and which are not, but allows to make comparisons in a given moment and place; however, the weights that it assigns to the variables contradict what the society could consider as desirable; for example, for gathering of garbage it assigns a score of 2,59 to a person who throws it to a river and 1,59 to a person who burns or buries it (MDERPD, 2006).

The subjective measurements of poverty that are used in Colombia are obtained from the answers to the questions of The Survey of Quality of Life (ECV) about the poverty perception of the households. The following is a sample of such questions 1. Do you consider yourself poor?, 2. Presently, how the life conditions of your household are?, 3. What do you consider should be the monthly minimum income that your household requires to satisfy its necessities appropriately? 4. What would be an income that you could qualify as excellent? Bad? These questions are not very clear about what is being referred to when speaking of poor in 1, of life conditions in 2 or of minimum income required by the household in 3. For that reason the results are not the most appropriate to determine strategies for programs of poverty relief. For example, in accordance with the calculations of the MERPD based on the question 1, ECV 2003, 36% of the households in the quintile 5 in urban areas are considered poor (MDERPD, 2006).

Participatory methodologies exist to generate profiles of poverty based on the local perceptions of the communities; this has been employed in Colombia and in other developing countries. For the World Development Report 2000/2001, experiences of qualitative participatory studies on poverty carried out in 50 countries were gathered, and a comparative study of 23 countries was made, with the objective of including the perceptions of the poor in politic proposals for poverty reduction. As a result of this investigation the World Bank published a methodological guide to elaborate participatory profiles of well-being that are elaborated in work groups, with representative members of the communities.

For Colombia, we have the development of regional profiles of poverty elaborated by Ranvborg (1999) to determine the levels of well being of the households of a certain community. The different levels of well-being are built in workshops where representative members are summoned; in this way the average levels of well-being are found to classify the households of the community[2].

In this study the methodology of Krishna was applied (2002). This methodology builds qualitative poverty lines, by means of the participatory definition of stages of progress with the communities. The objective is to determine in what stage were the households 25 years ago and at the moment. With this, it is possible to tell how poverty dynamics have been and to explore what the causes of the presented changes are. It has been applied in India, Kenya, Uganda, Peru and United States (Krishna, 2004a, Krishna et to the, 2004b, Krishna et to the, 2004c, Krishna et to the, 2005ª, Krishna et to the, 2005b and Krishna et to the, 2006).

This methodology arises with the purpose of understanding the poverty dynamics at a disaggregated level, in the communities and the households. In some developing countries, although the economic growth was stagnated during the last decades, there were dynamics that led the poor to improve or to worsen their situation. The knowledge of how some people escaped from poverty can be useful to help those who have not achieved it. (Krishna, 2004a, Krishna et al, 2004b). [3]

The commonly used objective measurements of poverty apply a series of normative criteria to determine what the best for people is. The studies carried out based on this information, generally use countries as measurement unit, and require the readiness of data gathered in different periods of time, as well as to have information in different moments that has to be comparable and complete. If the information doesn't fulfill these requirements the studies will throw questionable results or they simply would not be carried out. Additionally,

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[2] For more detailed information go to: http://www1.worldbank.org/prem/poverty/voices/index.htm
[3] For more detailed information go to: http://www.pubpol.duke.edu/krishna/index.html

this type of studies lack elements that allow understanding of people perceptions about poverty and the strategies that are developed to confront it, they are expensive and require time to have series of traverse data to use. For all the exposed reasons, Krishna outlines this methodology as an alternative (Krishna, 2004a, Krishna et to the, 2004b).

2.2 Stages of Progress Methodology and Poverty Line.

The stages of progress methodology were applied in 23 communities (veredas) of the municipalities of the Fúquene Lake Wastershed (CLF) in Cundinamarca and in the Coello River Watershed (CRC) in Tolima, between March and July of 2005. The places were selected in conversations with the mayors of the municipalities and based on the information of the indicators of the municipal Outlines of Territorial Classification (EOT). Poor settlements with water births, near *páramo* and in hillside areas were chosen. In the workshops 886 households participated in the CLF and 175 in the CRC; due to the problems of public order in CRC was not possible to have a bigger participation in the exercises. This is not a representative sample from the statistical point of view, but it is representative of the rural settlements in the area.

Previous to the workshops, a conceptual agreement was carried out on what would be understood for community and household. Community is considered a compound group between 25 and 60 household in a settlement, with similar geographical and environmental conditions as well as similar access to markets, where the household know each other and have remained at least during the last 25 years in the community. Home, is considered the group of people that share food "of the same pot or kitchen."

Additionally, it was carried out an initial visit from the team of investigators to the *veredas* (from now referred as communities), as well as discussions with the local officials and other key informants as presidents of meetings of communal action and community leaders. A description of the characteristics of the communities was made, which included history, socioeconomic characteristics, infrastructure and migratory movements of households. In the cases where

more than 25% of population was immigrant, the work in that community was not carried out. Next the steps that were taken in this study are described (Team of the project Escalas CPWF, 2005a).

I. To Summon a representative group: A representative group was summoned in each community, including members of different households, members of the poorest households and those that were not land owners or who were not entitled to exploit it. It was invited people that were 50 years old or older and had been living for more than 25 years in the community, and youths born in the community; also, some representatives of the local authorities were invited. It was important for the study to have gender representativeness in the groups, trying to have an equal distribution between men and women.

II. To explain the objectives: The members of the investigation team and the involved institutions were introduced to the communities; they explained the objectives and the process of information gathering. It was cleared up that it was a merely scientific exercise, with the purpose of avoiding false expectations among the participants. It was also explained with clarity how long it would take the workshop, with the purpose of getting the people to stay until the end of the process.

III.   To define collectively stages of progress and to determine the poverty lines: a common understanding was achieved of the concepts of poverty inside each community and of what it meant to be considered as poor. To establish an atmosphere without prejudices, alternative words were used to qualify poverty. The following questions were asked in each community: What does an extremely poor household when some money comes? What are their first expenses? And if a little more money comes, In what do they spend it? And later, What would be the third expense?, The fourth?, and so forth. This way, people defined the stages without referring to the money, for example, asking, "if that poor family was a little better or if a stable work was obtained, How would it be? What material or non-material things would it have that the poorest don't? The stages were described as specifically as possible for the participants

of the workshops, for example education should be elementary school or high school; for the housing it was specified the size and the material.

Based on this information the poverty lines were described in each community. In each case it was asked, "in what stage would a houehold stop being considered poor? ". This line was identified by means of progressive questions, "if a home has food but doesn't have clothes, does it continue being poor? " until establishing a consent among the participants.

IV.   To identify events that happened 25 years ago, and to determine the current situation and the situation 25 years ago: Clarity was made among the community about what is meant by 25 years, by means of significant events in the history that all can easily identified. Three events were referred: the earthquake of Popayán in 1983; Armero's tragedy 1985; the taking of the palace of Justice 1985. This horizon of time is chosen, since it allows seeing the changes happened in a generation. In each community the participants of the workshop evaluated the listing of households of their community and determined the stage where they were 25 years ago.   Also, the stage of progress in which the households are at the moment was established.

V. To group households in four categories and to choose a random sample of households in each category. Using the results of the previous step, each home was located in one of five groups:

- Category A. Households that have remained poor (that have been below the poverty line in every period) during the last 25 years.
- Category B. Households that have escaped from poverty (they have been below the poverty line the last 25 years and at the moment they are above it).
- Category C. Households that have fallen into poverty (they have been above the poverty line the last 25 years and at the moment they are below it).
- Category D. Households that have remained non poor (that have been above the poverty line in every period).

- Category E. Households who were not 10 or 25 years ago in the community (category E)

The following steps to the classification consisted on investigating in the workshops the causes for some homes to escape or to fall into poverty. Likewise visits to those homes were carried out to deepen about the causes. Because this information won't be used for this article, we won't go into detail about these two final steps.

3. Description of the Studied Sites.

The methodology stages of progress was applied in 13 communities of 6 municipalities of Cundinamarca department that are part of the Fuquene Lake Watershed (CLF) and in 10 communities of 5 municipalities of the Tolima department, in the Coello River Watershed (CRC) (See chart 1).

Chart 1. Departments, Municipalities and Communities where the Stages of Progress Methodology was applied.

Fuquene Lake Watershed.

Fúquene Lake watershed is located in the Colombian Andes, in the Valley of Ubaté and Chiquinquirá, at 2.543 meters above sea level (See map 1). Its influence area includes 17 municipalities of the departments of Cundinamarca and Boyacá. The population of the municipalities of the watershed in 2005 was of 232.416 people, 59% inhabitants of the rural area of the basin (DANE population projections). The Conditions of Life index - ICV - for 2003 (Sarmiento et al, 2006) varies among levels that go from low to high for these municipalities. The percentage of households with NBI for 2002 varies between 6,73% and 46,63%, which evidences the heterogeneity under the life conditions that are characteristic of the Andean basins. Additionally, the land distribution of in the rural area of the watershed is inequitable; the gini index average of rural property for 2002 is 0,59.

There are legality problems of property in the studied communities. Also, in accordance with the information found in the outlines of territorial classification (EOT) of the municipalities, the communities have unemployment rates that end up reaching percentages higher than 70%. Due to the lack of employment in the area, migration is presented to the near important urban centers. The population's educational levels are low (Team Project Scales - CPWF, 2005b).

Map 1. Localization of the Fúquene Lake Watershed.
Source: Ramírez and Cisneros, 2006.

The main economic activities of the region are cattle rising, agriculture and mining. As for the agricultural activity, the most important crops are the potato, the wheat, the pea and the corn.

The cattle's rising is the most important economic activity, mainly for the production of milk; this area produces a high proportion of the offer of milk at national level. The agricultural activity has a quite strong environmental impact because the areas of cultivation are being extended towards areas of steep slope, increasing soil loss, causing the burnt of the *páramo* and the deforestation of the Andean forests. Finally, the mining exploitation consists on the extraction of coal, stone and sand as construction material; this also generates negative environmental impacts related to the water and air contamination (Team Project Escalas, 2005b, Ramírez and Cisneros, 2006).

In the communties, there are also farmers that practice the agriculture very little and are devoted to the work outside their properties due to the high production costs and to the advanced process of soil deterioration. Other farmers have livestock for milk production, either for self-consumption or for sale to companies that gather milk. Also, there are sheep livestock and vegetables are cultivated in family vegetable gardens as support to the alimentary security of the household. In some areas the acacia plantations and eucalyptus were promoted by the Regional Autonomous Corporation (CAR), with the purpose of stopping the erosion mainly in the hillside areas (Team Project Scales - CPWF, 2005b).

The rent of the land is common in the high areas, and is used for potato's production. As for the access to the education and the medical service, in occasions it is necessary to move to other settlements or near urban centers. The access and quality of the public services is faulty, especially the aqueduct service, although it is not always problematic (Team Project Scales -CPWF, 2005b).

This is a very important watershed because of its biophysical and socioeconomic characteristics that make it representative of the basins of the Andes, the environmental problems, the disparities between the offer and the demand of water, the topography of the land, and the inequalities in the distribution of the resources and the social conflicts. The results of the analyses of this basin can be compared to others that are obtained in similar Andean basins.

Coello River Watershed

The Coello River Watershed is located in the north center region of the Tolima department, in the oriental slope of the Central mountain range; it includes an important portion of Tolima (see map 2). The total number of inhabitants of the area in 2005 (projections DANE), was of 622.395 people, 16% inhabitants of the rural area (including Ibagué). Most of the municipalities of the CRC have high population percentages in the urban areas (above 56%). The indexes of life conditions range between medium high, medium and medium low levels; the levels of health covering range between medium low and medium; and the average years of education range between medium low and high, this last level is found in Ibagué (the department's capital), while in the other municipalities, there are coverage problems and of access to the educational centers, as much at level of elementary school as of high school (Sarmiento et al, 2006).

Map 2. Localization of the Coello River Watershed.
Source: Project Scales - CPWF.

In the studied communities, the most important economic activities are agriculture, livestock breeding and mining. The main permanent crops founded in the region are coffee, sugar cane for *panela* production, and fruits (mainly mango, followed by lemon and *guanábana*). The transitory crops of the region are cotton, rice, sorghum, soy and sesame. Mining exploitation consists mainly in the extraction of stones and sand from the rivers to be used as construction material. Public services access in rural areas is good, in the case of electric power it has coverage of the 100%; meanwhile aqueduct service has problems of quality and continuity, and sewage service has severe coverage problems (Rodríguez and Rubiano, 2005).

In the area population migration to main nearby urban areas is present; the main destinies are Ibagué, Armenia, Bogotá, Cajamarca, El Espinal and Rovira, with the end of lookinfor job opportunities. The communities are composed by farmers from the zone or that came from the departments of Quindío, Cundinamarca, Tolima and Boyacá. In some communities – Coello-Cocora, Dindalito, Gualanday and Chaguala Adentro – there are inhabitants from the cities. Land property is characterized by inequality, absence of communal land property, predominance of land owned by a few and a lot of small properties (Rodríguez and Rubiano, 2005 and Team Project Scales, 2005b).

Foremost environmental problems in the region are related to the influence of the Panamerican road; people living nearby this road are affected by severe respiratory diseases. Additionally, "La Linea" tunnel construction causes soil removing, erosion and sedimentation. In the other hand, there is the pollution of serve water, the inadequate agricultural and livestock breeding practices, the deforestation to increase the rice crops cultivated areas, the presence of illegal crops, the commercial forest plantations, the mining activity and the agrochemicals contamination in the flat area. It is important to mention that there is an arising water access conflict, between small landholders in the upper part and the big rice producers and the hydropower company in the lower area (Rodríguez and Rubiano, 2005 and Team Project Scales, 2005b).

4. Results

4.1 Results of the application of the methodology of Progress Stages

The results of applying the methodology of stages of progress in the studied communities show the perception of the households regarding their situation in 2005 and how this evolved during the last 25 years (see chart 2). The sum of the columns A and C indicates what the percentage of poor households at the moment is, while the sum of B and D indicates the percentage of non-poor. At the present time 45% of the households in CLF is poor, where the most critical cases are found in Ladera Grande, Centro y Guata and Chapala, where the poor households represent 83%, 90% and 83% respectively. While in CRC only 13% is poor, compared to 84% of non-poor. The situation of the 10 communities of this watershed shows that between 55% and 100% of the households are non-poor.

Chart 2. Methodology. Basins of the Lagoon of Fúquene and of the River Coello. 2005.
Source: Project Escalas CPWF.

The results of the categories A and B show how the evolution of the situation of poverty of the households in the last 25 years has been. In CLF, 42% of the population continue being poor and 30% was poor before and is not poor now; in this case we saw extreme and intermediate cases in the studied communities. For Ladera Grande, Centro and Guata, and Chapala stagnation has occurred, presenting between 66% and 90% of households that have always been poor. In contrast, Peñas de Cajón and Apartadero have 61% and 70% of households that stopped to be poor. In CRC only 11% of the households continue being poor and 59% have been able to overcome this situation, which implies an important advance. More than 50% of the households of 9 of the 13 communities improved their situation, standing out the communities Potrerillo, El Rosal and La Ocera with more than 70%.

The variability that we find in the results obtained for the communities, regarding the existent levels of poverty, contrasts with the ICV for the municipalities in question. For the CLF, where there were cases of higher poverty, the levels of ICV that prevailed were medium, while for the CRC, with a smaller poverty incidence per community and where a bigger progress has existed, there were municipalities that presented a medium high ICV[4]. Some particular cases call the attention, like the one of Chapala in the CLF, where most of the population is considered poor, while the NBI, 6,73 for Cucunubá (municipality where the community of Chapala is located) in 2002 indicates the opposite. However, these comparisons are not conclusive, because the information is not disaggregated for urban and rural areas.

It is important to keep in mind that these results depend on the defined poverty line for each community. They can differ, which marks distinctions when comparing the data again. It is possible that the household that is considered poor in a community, in accordance with their poverty line, could be above it in another community. It is then when we proceed to analyze the poverty lines of the communities, the elements they include, the number of stages that should be overcome and the level of difficulty that implies to stop being poor under these approaches.

Before continuing, it is important to mention the utility of this type of information, obtained by means of participatory methodologies, compared to the indicators calculated by the state official organisms, since they allow to have information of the current and precedent conditions of life of the studied areas in an opportune way. In the case of the rural areas a bigger difficulty is presented to obtain the information for each municipality, because the sampling processes used by the organisms in charge of the information gathering take time and are expensive; in addition, it is calculated from samples that are not representative when disaggregating the information to obtain indicators at urban and rural level, for departments and municipalities.

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[4] The ICV for Cundinamarca is 76,6, while for Tolima is 73,4 in 2003.

4.2 Definition and variability of the stages.

For each of the communities the stages of progress were defined in a participatory way and the poverty lines were set with the methodology explained previously. It was found that for the different communities of the municipalities where the methodology was applied, between 7 and 24 stages in total were defined, where in turn, it is considered that it would be necessary to overcome from 3 up to 10 stages for a household to overcome poverty. Also, if we observe the stages of progress of communities in the same municipality, it is found that differences exist in some stages and in the poverty line. This is evident for the municipalities of Sutatausa, Guacheta, Fúquene, Cajamarca, Ibagué and Coello, where the methodology was applied in more than one community (See Chart 3).

Chart 3. Number of Total Stages that define the Poverty Line per Community
Source: Project Scales, CPWF

In principle, one can affirm that differences exist in the definition of poverty line among the communities. The information of the number of stages fixed by the communities, has to be analyzed from the point of view of the elements that are mentioned with more frequency and that are considered as the most important, based on the order in which the definitions of the progress stages appear.

With the purpose of analyzing the information, it was made a general classification of the different elements mentioned in 14 comparable categories. With the information this way classified, it was calculated, for each one of the categories, the total frequency of mention and the distribution of these mentions in the different levels or stages. Assuming that the relative importance falls as the level of the stage where a category is mentioned rises, weights or falling scores were assigned through the distribution, with the purpose of calculating, for each category, a value of total score expressed as the addition of the product frequency per score. The obtained total score, divided by the maximum possible score for a category, if it is always mentioned in all the communities of the study in the first stage, gives origin to an index (1) that takes values

between 0 and 1. This way it was possible to order the categories by frequency and grade of importance (See chart 4).

   (1)

$$I_i = \frac{\sum f_j * W_j}{N * W_{Max}} \quad (1)$$

Where:

fj = Number of mentions of a category in the level "j."

Wj = Weight or assigned score at the level "j."

N = Number of settlements considered in the study.

WMax = Value of weight or assigned score at the level 1.

Chart 4. Categories of Poverty Line, in order of importance and frequency of times that it was mentioned.

Source: Own calculations based on the information of the Project Scales CPWF.

The index measures the weight or relative grade of importance of each category, according to the position that was given in the stages that are required to overcome poverty. With the information of the index, one can deduce how difficult it can be to stop being poor in a specific community, according to the accumulated sum of the relative weights of the considered stages, for each community. In the graph 2 is shown how those "more demanding" communities, in terms of the number and relative weight of the stages included in the poverty line, are those that in turn determined a bigger number of stages to overcome.

By means of this information, the dynamics of the poverty can be analyzed, for the communities where there were a high percentage of households that continued being poor after 25 years. In the CLF, the households of Chapala, and of Centro y Guata, should overcome 10 and 8 stages respectively. In Chapala the initial stages imply access to the secondary education, lot/land and housing with walls, roof and bathroom; in Centro y Guata it consists on

improving crops by means of reservoir construction; in La Puntica the poverty line is above 8 stages, where the seventh consists on entertainment by means of the realization of trips. The stages to be overcome are many and imply to have the capacity to make investments for the acquisition and improvement of the land or the housing, access to the secondary education or for entertainment.

In the settlements where a high percentage of the households stopped being poor, we meet with Peñas de Cajón, Apartadero, Potrerillo and La Ocera, where there should be overcome between 3 and 5 stages including Food, Education, Clothing, Health, Small Animals, Housing (improvements), Land (lot/land in company) and Crops (in company). So much the number of stages as their complexity to be reached are smaller than the ones of the communities in the previous paragraph. That is to say, if the households that are considered as poor like Centro y Guata and Chapala moved to some of the settlements mentioned here, they would stop to be considered as poor when being confronted under a "less demanding" measurement pattern.

In Chapala, the inclusion of high school education in the poverty line can be explained by the fact that in this area adult population prevails. In accordance with the interviews carried out in these communities, the young population's migration has been common and in cases like Chapala few homes have kids younger than 12 years old. In this settlement, in La Puntica and in Centro y Guata, the agriculture is not practiced as a productive activity, but for self-consumption, the population is devoted in its majority to the mining of coal (Chapala) or has emigrated (mainly the youths) to be devoted to this activity. The mining could have influenced the perceptions of the inhabitants of the communities, so that they consider the entertainment and the possession of appliances (like in Chapala) inside the poverty line.

In Peñas de Cajon and Chapala, most of their inhabitants are devoted to the mining of coal. Although the salaries of the mining are good (up to $1.500.000 current of 2005), it is not clear why in this case the poverty line includes fewer elements. On the contrary, in Apartadero, Potrerillo and La Ocera, most of the families are devoted to the agricultural and cattle activity, where elements like

land and crops appear in contrast to the elements included by the inhabitants of the communities where mining activity prevails.

The definition of the poverty lines is obtained based on local perceptions, which depend on social, economic and cultural factors that seem quite relative. With the objective of understanding the variability in the definitions of the poverty line in the communities, the methodology of analysis of multiple correspondence was used, which determined the most (or least) common categories in the definitions of poverty line in the communities: Services, Food, Education, and Housing the most common; and Savings/Investment and Other the least common ones. These last categories were eliminated due to their low power to discriminate. Then, the analysis was made with the rest of categories to generate the first two main components (or dimensions) that were used in an analysis of conglomerates that allowed conforming "clusters" or groups of near settlements according to the elements that conform the line poverty defined in each case.

The result of the analysis can be observed in the Graph 3. where four groups are distinguished. The poverty lines in each of them have the common trait of including one or more variables that have not been considered by the others: The group 1 includes land and appliances; the group 2 small animals and clothing; the 3 vehicles and recreation and the 4 crops. A pattern doesn't exist for department, watershed or municipality. In the comminities of the group 1 in contrast with the group 3, the small properties prevail, which can explain the inclusion of the element land as important, while in the 3, the cattle raising for the production of milk and the big properties are the characteristics of the region.

Graph 3. Cluster of communities based on the elements of the Poverty Line of each community.
Source: Project Scales CPWF

The poverty lines in all the communities include in their definitions basic elements (food, education, housing, public services). Once the poverty line is

overcome, they tend to improve in access, quality and quantity. But there are others that make the definitions of the poverty line to be different among the communities, which for some is considered as a primordial element, for other it is not it, which is evident in the conformation of the 4 groups.

Although there aren't enough elements to determine the reason for the inclusion of the identified elements in each group, it is probable for the productive activities that are the most important sources of income, the land holding and some institutional factors, to influence the perceptions of people. For the settlements of the group 2, the main source of its inhabitants' income is the work outside of the own property, most work for a daily salary in construction activities, tourism or in the flowers crops. For the self-consumption at home level, the cattle activity prevails more than the agriculture. In the case of the group 4, in the communities the agriculture is the most important source of income, which could explain the presence of crops as an element of the poverty line.

So much in the communities of the group 2 as in those of the group 4, we met with participation in cooperative activities and with active participation of women in programs of rural families of the Colombian Institute of Family Well-being, ICBF, but this doesn't explain the reason of the inclusion of elements as small animals, clothing and crops. In the group 1, the land holding features small properties, while in the group 3, there are big properties in hands of few, which could explain why the group 1 includes land, but not why it doesn't appear in the group 3.

If we compare the chart 5, with the results obtained with the studies in other countries ((Krishna, 2004a, Krishna et al, 2004b, Krishna et al, 2004c, Krishna et al, 2005ª, Krishna et al, 2005b) the elements included in the poverty line don't differ significantly among different populations, and the elaborated poverty lines are constituted from 4 up to 7 stages. If we observe some elements that are part of the poverty line of for the Colombian communities, we can see that in other countries they are not included under the line, or the communities do simply not consider them. For example, appliances, health, recreation and

services don't appear for Peru, Kenya, India or Uganda. A possible explanation for this is that in the exercise carried out for Colombia the number of households and of communities where the methodology was applied is smaller than for the other countries. This leads to the question of weather when enlarging the study universe we will find more differences in the stages built by the communities; or if this exercise will allow to find similarities through the Colombian rural communities to generalize a group of stages in the poverty line (LP).

There are elements common to the LP in the countries compared in the chart 5: food (in all the cases in the first place), clothing, housing, education, smaller animals, land or crops, in different order, but in general present. Although the results are not comparable, from the perspective of the social, economic and cultural contexts of the mentioned countries, there is a group of material assets that are part of the necessary stages to overcome poverty in the rural areas, that are not considered by another type of measurements.

Chart 5. Stages of the Progress Colombia and Case Studies of other countries. Source: Own calculations, based on the information of the project Escalas, Krishna, 2004a, Krishna et al, 2004b, Krishna et al, 2004c, Krishna et al, 2005a, Krishna et al, 2005b.

Additionally, the elements included in the poverty line, can be compared with the elements of the traditional measurements of poverty like the NBI and the ICV (See chart 6). The first thing that one can notice is that the element food, considered as the most important in the LP is not considered by the other two indicators. Additionally, there is a group of assets that were considered by the rural communities like small animals, land and crops, that aren't included in the objective measurements of poverty, like the NBI and the ICV. In the case of the rural communities, these assets contribute to the alimentary security of the household and the survival of its members.

If in the indicators of poverty for the rural areas, the holding of this type of assets was included; perhaps, those households that possess them would be better than those that don't have them.

On the other hand, the access to education, is an element of supreme importance, so much for the LP as for the NBI and the ICV; in these two last it is very specific what is considered as basic in terms of access to the education; in the NBI it is the attendance of the children in school age between 7 and 11 years old; and in the ICV it goes further on, considering so much the levels of the children's school attendance in school age, as the years of education of the household's head and of the other members of the family, that is to say, it measures the average human capital accumulated in the household.

In the LP determined by the communities, the elementary or high education for the children is of great importance, as well as the capacity of the household to buy the supplies that are required to attend the school. This seems to make sense, because generally in the households, the parents consider that their children require first to be fed and to have the school supplies, and then to attend the school. They consider the access to technical training for the parents when this has been related with the fact of overcoming poverty.

Chart 6. Elements that are part of the indicators LP, NBI and ICV.
Source: Own calculations, DNP, UNDP, 2006.

The household's size and the dependence rate are not elements of the LP, while in the NBI and in the ICV, the rate of economic dependence, the accumulation, the size and the composition of the household are considered. For the LP, only in the case of the community El Rosal in Cajamarca, the second stage of the LP is the investment in family planning, although this is not the only community where the women participate in programs of the ICBF. In the other cases it is not mentioned the size of the household as a factor that has an impact in poverty, although the maintenance of more people requires more effort of the household.

Finally, most of the elements of the NBI and the ICV are related with the material attributes of quality of the housing, or with the accumulation of human capital in the household. They don't consider the feeding or the holding of another type of material assets that contribute to the rural poor livelihoods and are indirectly related to the feeding; which can mark the difference between being or not being poor.

5. Conclusions.

The existent methodologies for the poverty measurement have to face the challenge of trying to express, in a synthetic way, a complex and multidimensional phenomenon. The objective methodologies require the determination of standards to carry out comparisons among the information that is obtained in different periods of time, and they privilege the use of data of quantitative type to fulfill this objective. The standards determined by this type of measurements are of absolute character, and in occasions they are out of context. The standardized elements lose explanatory power for the sake of the simplicity and comparability, excluding some elements that are considered as important by the society, generating contradictions or ambiguities in the definitions of poverty.

The subjective and participative methodologies allow the understanding of the situation of the poverty in a certain social, economic and cultural context that can be quite relative, particularly in conditions of heterogeneity and inequality, like in the studied watersheds. But is precisely because of these features that the capacity to make comparisons among communities is lost, so much in the temporary as in the spatial environment, due to the peculiarities of the place where they are applied. Therefore, the objective and participatory methodologies are complementary, and this can lead to carry out better standards that include those elements that are important for people, and in this way to allow the outlining of more effective policies and programs for poverty relief.

On the other hand, the subjective methods facilitate opportune information of the life conditions in an area or region, when it is not possible to have it in an up-to-date and periodic way. The obtaining of the information given by the official organisms takes time and implies costs, particularly for the rural areas.

The results of the poverty lines defined from a methodology like the stages of progress, include elements considered as basic from the point of view of the objective measurements of poverty (food, housing, health, services, education), therefore, there aren't in principle inconsistencies from this point of view. However, the elements considered as basic by the objective measurements were not the only ones considered among those that are necessary in the community for a household to be non-poor. The additional elements perceived as important depend on the preferences of the households and mark the differences of the stages among the communities.

The situation of poverty from the perspective of the studied communities depends on the context where the individuals form their conception of this, not only from the point of view of what is understood as poor, but also considering how complicated it can be to overcome poverty. For this reason we meet with a lot of variability regarding the location of the poverty line. There has to be extra care with the existence of elements related with the individual preferences and with their order, because the obtained results cannot allow to carry out comparisons of the situation of poverty among the settlements. This is because the poverty lines differ as much in their composition as in the ordinal character of their elements.

The results evidence that we know little about the elements that can make the definitions of the poverty lines to differ, because a pattern among the stages and the characteristics of the communities was not found. There were considered elements that could be related with the possession of material assets, but in fact, they were not enough. Therefore, to deepen in the social and cultural characteristics of the communities it is necessary to understand, for example, why elements like the recreation and the possession of a television are part, of what a group of individuals, can consider as a stage to overcome poverty.

The comparison of the stages obtained with CRC and CLF with the stages set by the communities of other developing countries, suggests that there is more work to do: to carry out the exercise stages of progress with a bigger number of households and of poor communities in Colombia to determine if some regularity exists in the opposing stages, and what characteristics of the communities can influence the poverty lines that they build. Additionally, the question arises of whether we could think of carrying out some generalization of what the material assets are, and what kind of human capital is required in the communities of the rural areas to overcome poverty, to focus the government's poverty alleviation programs in this direction.

Due to the characteristics of the results, it can be concluded that the methodology of stages of progress offers important information on the necessary elements to help a household to overcome poverty. In the case of the rural areas the holding of goods as small animals, land and crops that contribute to the alimentary security would improve the situation of many people. Equally, the possibility to send the children to the school and to get all that is required to increase the levels of school attendance could be profiled as high-priority in the programs of poverty relief in the area.

Participative methodologies like the stages of progress, can be very useful to identify how the dynamics of progress in an area have been, since by means of the definition of the poverty lines the evolution of the situation of the households in time can be described. If what is looked for with these results is to define the poverty, there are complications related to the specificity of the context where what it means to be poor.

It is advisable that when the methodology of stages of progress is used with the objective of prioritizing the poorest population in a given area, to use no only the categories but also the type of stages that the communities have not overcome. This will really give an idea of the differences, - in terms of lacks -, among the communities. For example, it is not the same thing that a household is below the poverty line because it doesn't have the economic capacity for recreational

trips, than a household that was located also below the poverty line, because it doesn't have housing.

References

Boltvinik, J.(1997) *Poverty Measurement Methods: An Overview*. Available at http://www.undp.org/poverty/publications/pov_red/.

Team Project Escalas CPWF (2005a). *Metodología Etapas del Progreso Para el Análisis de la Dinámica de la Pobreza*, adaptado de Kuan, J. *Stages of Progress Method for Poverty Dynamics Analysis. Mimeo.*

Team Project Scales CPWF (2005b). *Documentos de los Talleres realizados en las veredas de las cuencas de la Laguna de Fúquene y del Río Coello. Mimeo*.

Team Project Scales CPWF (2005c). *Resumen de características de las veredas de las cuencas de la Laguna de Fúquene y del Río Coello. Mimeo*.

Krishna, A (2004a). "Escaping Poverty and Becoming Poor: Who Gains, Who Loses, and Why?". *World Development* Vol. 32, No. 1, 121–136.

Krishna, A, Kristjanson, P, Radeny, M and Nindo W (2004b). "Escaping Poverty and Becoming Poor in 20 Kenyan Villages". *Journal of Human Development*. Vol. 5, No. 2, 211-226.

Krishna, A, Lumonya, D, Markiewicz, M, Kafuko, A, Wegoye, and y Mugumya, F (2004c). *Escaping Poverty and Becoming Poor in 36 Villages of Central and Western Uganda*. Working Paper. Available at http://www.pubpol.duke.edu/krishna/documents/.

Krishna, A, Kapila, M, Porwal, M and Singh, V (2005a). "Why Growth Is Not Enough: Household Poverty Dynamics in Northeast Gujarat, India". *Journal of Development Studies*. Vol. 41, 1163-1192.

Krishna, A, Kristjanson, P, Kuan, J, Quilca, G, Radeny, M and Sánchez-Urrelo, A (2005b). *Fixing the Hole at the Bottom of the Bucket: Household Poverty Dynamics in Forty Communities of the Peruvian Andes*. Working Paper. Available at http://www.pubpol.duke.edu/krishna/documents/.

Krishna, A, Gibson-Davis, C, Clasen, L, Markiewicz, M and Perez, N (2006). *Escaping Poverty and Becoming Poor in Thirteen Communities in Rural North Carolina*. Working Paper, Terry Standford Institute of Public Policy, Duke University. Available at http://www.pubpol.duke.edu/krishna/documents/.

Lok Dessallien, R. (1995) *Review of Poverty Concepts and Indicators*. Available at http://www.undp.org/poverty/publications/pov_red/.

MDERPD (2006). *Metodología de Medición y Magnitud de la Pobreza en Colombia: texto preliminar sometido a ajustes eventuales*. Bogotá. MDERPD.

Ramírez, M.C., and Hector Cisneros (eds) 2006. Andean System of Basins: Watershed Profiles - Enhancing Agricultural Water Productivity Through Strategic Research. Technical Report No. 1, Challenge Program on Water and Food. P.O. Box 2075, Colombo Sri Lanka.

Ranvborg, H (1999). *Desarrollo de Perfiles Regionales de Pobreza basados en Percepciones Locales*. Cali. CIAT.

Rodríguez, H and Rubiano, J (2005). Aspectos Biofísicos y Socioeconomicos de la Cuenca del Rio Coello en el Depatamento del Tolima – Colombia. Cajamarca. Corporacion Semillas de Agua: Proyecto de Conservación y Desarrollo en la Cuenca del río Anaime.

Sarmiento, A, Cifuentes, A, González, C and Coronado, J (eds.) (2006). Los Municipios Colombianos hacia los Objetivos de Desarrollo del Milenio: Salud, Educación y Reducción de la Pobreza. Bogotá. DNP, PDH, UNDP y GTZ.

Charts and Graphs

Graph 1. Different measurements of poverty

Sourcee: MERPD, 2006

Measurements of poverty, subjectve and objective measurement, monetary measurement, relative and absolute measurement.

Chart 1. Departments, Municipalities and Communities where the methodology Stages or Progress was applied

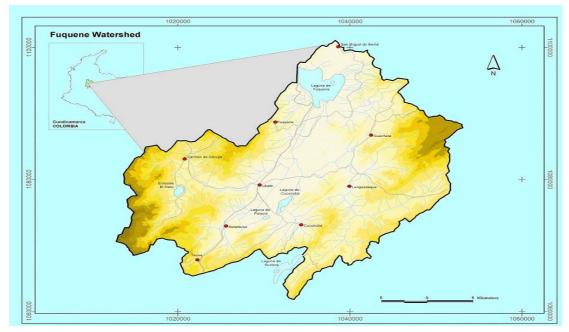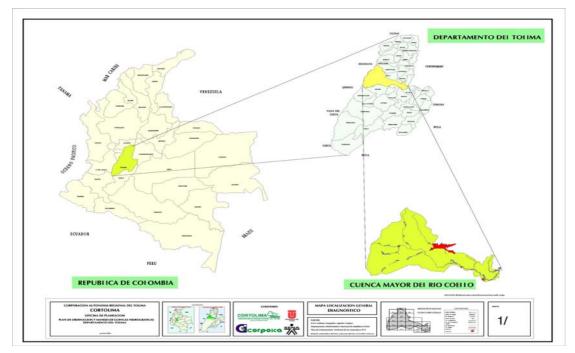| Department		Municipality		Settlement
Cundinamarca	1	Tausa	1	Ladera Grande
			2	Rasgata Bajo
	2	Sutatausa	3	Chipaquin
			4	Palacio
			5	Peñas de Cajon
	3	Guacheta	6	Gacha
			7	La Isla
			8	La Puntica
	4	Fuquene	9	Centro y Guata
			10	Chinzaque
			11	Nemoga
	5	Cucunuba	12	Chapala
	6	Carmen de Carupa	13	Apartadero
Tolima	1	Cajamarca	1	La Leona-APACRAQ
			2	El Rosal
			3	La Alsalcia
			4	Minidistrito La Leona
	2	Ibague	5	Coello COOCRA
			6	San Cristobal-Honduras
	3	Espinal	7	Dindalito
	4	Coello-COCORA	8	Potrerillo
			9	Chaguala Adentro
	5	Rovira	10	La Ocera

Source: Progress Stages Project Scales CPWF

Map 1. Localization of Fúquene Lake Watershed.

Source: Ramírez y Cisneros, 2006

Map 2. Localization Coello River Watershed.

Source: Project Scales CPWF 2005

Chart 2. Results of the methodology. Fúquene Lake and Coello River
Watersheds. 2005

Municipio		Vereda	CatA	CatB	CatC	CatD	CatE	A+C	B+D	ICV 2003
Cundinamarca	Tausa	Ladera Grande	66%	8%	17%	4%	6%	83%	11%	
		Rasgata Bajo	24%	22%	2%	5%	46%	27%	27%	Medio
	Sutatausa	Chipaquin	34%	41%	13%	13%	0%	47%	53%	
		Palacio	37%	47%	0%	2%	14%	37%	49%	
		Peñas de Cajón	17%	61%	0%	0%	22%	17%	61%	Medio
	Guachetá	Gacha	38%	26%	6%	28%	1%	44%	54%	
		La Isla	40%	30%	3%	25%	1%	43%	55%	
		La Puntita	39%	32%	0%	4%	24%	39%	37%	Medio
	Fúquene	Centro y Guata	90%	1%	0%	1%	7%	90%	2%	
		Chinzaque	23%	46%	3%	28%	0%	26%	74%	
		Nemogá	13%	29%	4%	46%	8%	17%	75%	Medio
	Cucunubá	Chápala	83%	13%	0%	0%	5%	83%	13%	Medio Bajo
	Carmen de Carupa	Apartadero	30%	70%	0%	0%	0%	30%	70%	Medio Bajo
		Total	42%	30%	3%	14%	10%	45%	44%	
Tolima	Cajamarca	La Leona - Apacra	0%	31%	0%	69%	0%	0%	100%	
		El Rosal	0%	77%	8%	15%	0%	8%	92%	
		La Alsalcia	21%	57%	0%	21%	0%	21%	79%	Medio
		Minidistrito La Leona	45%	55%	0%	0%	0%	45%	55%	
	Ibagué	Cocora	6%	22%	0%	44%	28%	6%	67%	Medio
		San Cristóbal - Honduras	5%	47%	5%	42%	0%	11%	89%	Medio Alto
	Espinal	Dindalito	15%	46%	8%	31%	0%	23%	77%	Medio Alto
	Coello	Potrerillo	0%	100%	0%	0%	0%	0%	100%	Medio
		Chaguala	29%	57%	7%	7%	0%	36%	64%	Bajo
	Rovira	La Ocera	6%	75%	0%	19%	0%	6%	94%	Medio Bajo
		Total	11%	59%	3%	24%	3%	14%	83%	
		Gran Total	37%	35%	3%	16%	9%	40%	50%	

Source: Project Scales CPWF, DNP-UNDP 2006

Note: The ICV is aggregated by municipalities for rural and urban zones.

Chart 3. Number of total stages that define the Poverty Line per Community
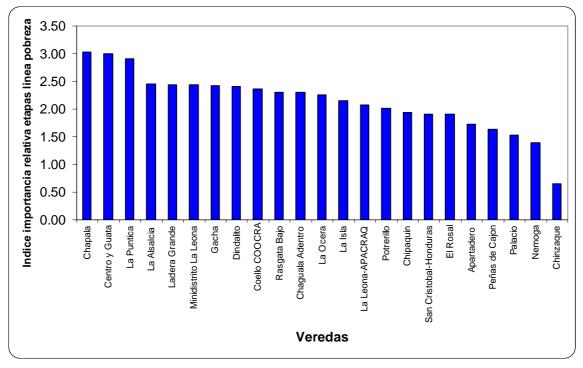
Depto		Munic		Vereda	Total Etapas	Línea pobreza
Cundinamarca	1	Tausa	1	Ladera Grande	12	6
			2	Rasgata Bajo	12	6
	2	Sutatausa	3	Chipaquin	8	5
			4	Palacio	10	4
			5	Peñas de Cajon	8	3
	3	Guacheta	6	Gacha	12	6
			7	La Isla	15	8
			8	La Puntica	12	8
	4	Fuquene	9	Centro y Guata	13	8
			10	Chinzaque	7	2
			11	Nemoga	8	2
	5	Cucunuba	12	Chapala	14	10
	6	Carmen de Carupa	13	Apartadero	16	4
Tolima	7	Cajamarca	14	La Leona-APACRAQ	15	5
			15	El Rosal	18	8
			16	La Alsalcia	22	6
			17	Minidistrito La Leona	13	8
	8	Ibague	18	Coello COOCRA	21	5
			19	San Cristobal-Honduras	24	4
	9	Espinal	20	Dindalito	15	5
	10	Coello	21	Potrerillo	16	4
			22	Chaguala Adentro	21	8
	11	Rovira	23	La Ocera	22	5

Source: Progress Stages Project Scales CPWF 2005

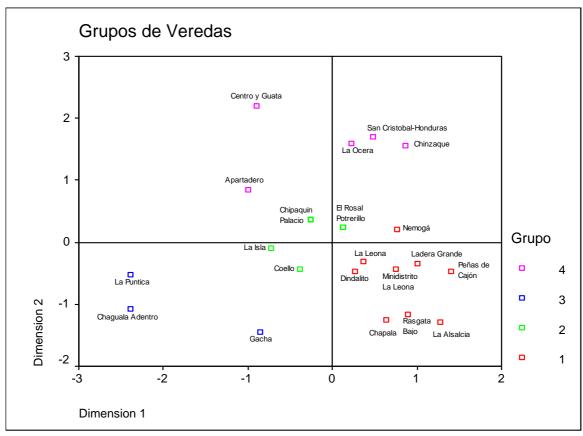Chart 4. Categories of Poverty Line in order of importance and frequency of mention.

Description	Index	Order	Frequency
Food	0.84	1	20
Education	0.55	2	18
Clothing	0.41	3	12
Housing	0.41	4	15
Smaller Animals	0.35	5	14
Land	0.23	6	8
Utilities	0.22	7	8
Appliances	0.20	8	8
Health	0.12	9	4
Cultivations	0.10	10	4
Other	0.08	11	2
Vehicles	0.06	12	2
Savings/Investment	0.04	13	1
Recreation	0.03	14	2

Source: Own calculations based on the information of the project Scales CPWF. 2005

Graph 2. Level of exigency of the Poverty Lines per Community

Source: Own calculatins based on the information of the Project Scales CPWF 2005
Index of relative importance of the Poverty Line per Communities

Graph 3. Cluster analysis of the elements of the Poverty Line per Community

Source: Own calculations based on the information of the project Scales CPWF 2005

Chart 5. Stages of progress for Colombia and other Countries.

Coello-Fuquene	Kenya	Perú	Uganda	India
1, Food	1, Food	1,Food	1, Food	1, Food
2, Education	2, Clothing	2, Clothing	2, Clothing	2, School for children
3, Clothing	3, Home improvement (roof)	3,Basic home improvement	3, School for children	3, Clothing
4, Housing	4, Elementary school for children	4, Smaller animals	4, Repairing existing House (roof)	4, To pay debts
5, Smaller Animals	5, To buy hen	5, Elementary School for children	5, To buy small animals	NA
6, Land	6, To buy sheep	6, To buy land	6, To buy small land	NA
7, Utilities	7, To buy local livestock	7, Smaller livestock (sheep, ALPACA, llama)	7, To buy a bicycle for transportation	NA
8, Appliances	8, Home improvement (furniture)	8, To buy bigger land	8, To buy more land	NA

33

9, Health	9, High school for children	9, Home Improvement	9, To buy a permanent house	NA
10, Cultivations	10, To buy land	10, Bigger animals	10, To start a small bussiness	NA
11, Other	11, To buy livestock	11, High school and higher educaton	11,To buy a car or to start a bussines	NA
12, Vehicles	12, To buy land	12, Small business		NA
13, savings / Investment	13, Building a permanent house	13, To buy a house in the city		NA
14, Recreation	14, Investing in a bussiness			NA

NA: Non available information

The stages of poverty highlighted in blue are the ones included in the poverty line built by the communities in each of the case studies.

Source: Own calculations based on the information of the project Escalas, Krishna, 2004a, Krishna et al, 2004b, Krishna et al, 2004c, Krishna et al, 2005ª, Krishna et al, 2005b

Chart 6 Elements included in the LP, NBI and ICV indicators.

Line of poverty	NBI	ICV
1. Food		
2. Education	Non School assistance: A home with children from 7 to 11 years old that don´t go to school.	EDUCATION AND HUMAN CAPITAL Proportion of children from 5 to11 years old in a School
		Average Scholling Level for a 12 year old or older
		Proportion of youths from 12 to18 years old that go to high school or university
		Maximum Schooling of the head of the family
3. Clothing		
4. Housing	Inadequate Housing: House with floor of earth or precarious material in the walls.	QUALITY OF THE HOUSE Main material in the floor. Main material in the walls.
	House whithout utilities, a home with no water in urban areas and no conection to drain system or septic well	Water Source
		Oil for cooking
		Garbage gathering
5. Smaller Animals		

6. Land		
7. Utilities		
8. Appliances		
9. Health		
10. Cultivations		
11. Other	Critical overcrowding: Number of people per room higher than 3.	SIZE AND COMPOSITON OF THE HOME Overcrowding in the house
	High economic dependency: A home with more than 3 dependent members, where the head of the family has a maximum of 3 years of basic education.	Proportion of 6 year olds or younger
12. Vehícles		
13. Savings/Investment		
14. Recreation		

Source: own calculations, MERPD, PNUD, 2006.