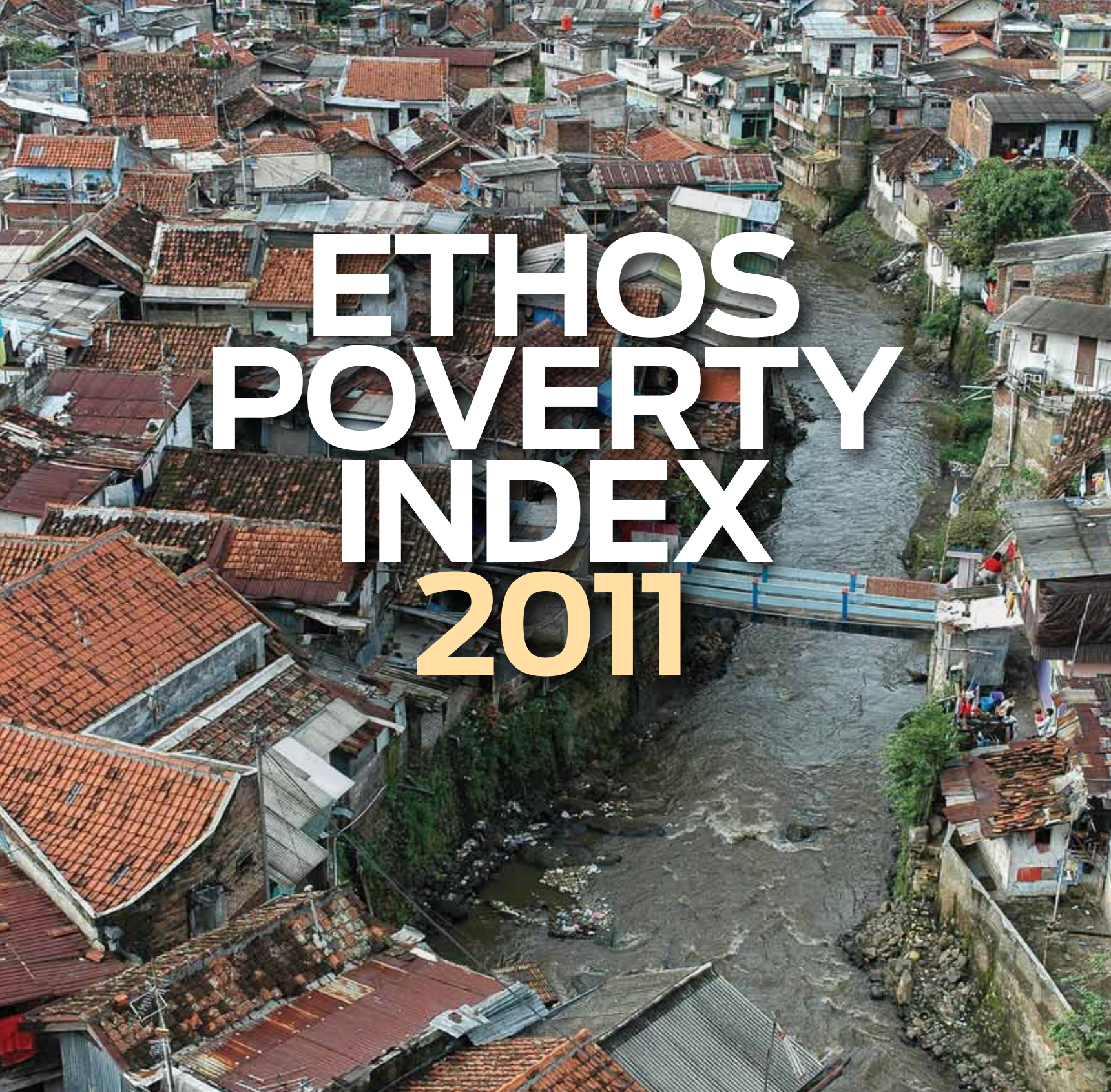


ETHOS POVERTY INDEX 2011

ethos fundación

D.R. © Avance-Análisis, Investigación y Estudios para el Desarrollo, A.C.
Enrique Rebsamen 1108
Col. Del Valle 03100
México D.F.

info@ethos.org.mx

Design and Photography
Danilo Black and Germán Romero Martínez

First Edition, June 2011.

Printed in Mexico.

Project Coordinator
MAURICIO RODAS ESPINEL

Working Team
ALICIA SANTANA CARTAS, LILIANA ALVARADO BAENA, CARLOS GAITÁN LASTRAS AND STEPHEN BIRTWISTLE

Acknowledgements
We are grateful for the valuable comments received from the following people during the development of the Ethos Poverty Index:

SABINA ALKIRE	(Oxford Poverty and Human Development Initiative-United Kingdom)
CARLOS ANZALDO GÓMEZ	(National Population Council-Mexico)
RICARDO APARICIO JIMÉNEZ	(National Council for Social Development Policy Evaluation-Mexico)
FERNANDO CORTÉS CÁCERES	(National Council for Social Development Policy Evaluation-Mexico)
RODOLFO DE LA TORRE GARCÍA	(United Nations Development Program, UNDP)
ALEJANDRO FOXLEY	(Carnegie Endowment for International Peace)
RUBÉN HERNÁNDEZ CID	(Autonomous Technological Institute of Mexico)
GONZALO HERNÁNDEZ LICONA	(National Council for Social Development Policy Evaluation-Mexico)
CHOI JIEHAE	(Legatum Institute-United Kingdom)
PATRICIA LÓPEZ RODRÍGUEZ	(Iberoamerican University, Mexico City)
HÉCTOR MORENO MORENO	(United Nations Development Program, UNDP)
MÓNICA OROZCO CORONA	(National Women's Institute-Mexico)
ALEJANDRO RAMÍREZ MAGAÑA	(Cinépolis Group)
HUMBERTO SOTO DE LA ROSA	(Economic Commission for Latin America and the Caribbean, ECLAC)

We wish to give special recognition to ECLAC Social Statistics Unit, particularly to Juan Carlos Feres and Xavier Mancero, for facilitating access to the data gathered from the household surveys conducted for this project.

TABLE OF CONTENTS

1	**OBJECTIVE**	**6**
2	**CONTEXT**	**8**
3	**DEFINITION OF POVERTY**	**10**
4	**COMPONENTS, DIMENSIONS, AND VARIABLES OF THE ETHOS POVERTY INDEX**	**12**
5	**COUNTRIES ANALYZED**	**16**
6	**ETHOS POVERTY INDEX RANKING**	**18**
7	**HOUSEHOLD POVERTY**	**22**
	7.1 Household Poverty Dimensions	24
	7.2 What most affects Household Poverty?	31
8	**CONTEXTUAL POVERTY**	**36**
	8.1 Contextual Poverty Dimensions	38
	8.2 What most affects Contextual Poverty?	53
9	**CONCLUSIONS**	**56**
	METHODOLOGICAL ANNEX	60
	1. Methodology for measuring Household Poverty	60
	2. Methodology for measuring Contextual Poverty	65
10	**BIBLIOGRAPHY**	**70**

1 Objective

The objective of the Ethos Poverty Index is to enrich the study of poverty by using multidimensional measurement attuned to the realitiy of Latin America, as well as to contribute to the analysis and design of public policies based on a more comprehensive and broader concept of poverty.

To this end and in addition to considering conventional variables such as those related to income, education, and household characteristics, we incorporate contextual aspects such as public health, institutions, economy, democracy, public safety, gender equality, and environment, all of which play an essential role in overcoming poverty.

This new measurement is intended to obtain a clearer and more realistic panorama of poverty in Latin American countries. Additionally, it seeks to improve government decision-making aimed at eradicating this phenomenon which is severely affecting the region.

2 Context

Despite progress made in recent years in reducing poverty in Latin America, the majority of countries in the region still have high levels of marginalization and social lag.

This scenario shows that the region continues to face serious challenges to improving the living standards of a very large sector of its population. Thus, the task of defining and quantifying poverty acquires far greater importance, as well as analyzing the root causes of this phenomenon.

Experts have pointed out on numerous occasions that in Latin America insufficient income, education, healthcare, nutrition, basic services, and housing infrastructure constitute the condition of poverty. Consequently, addressing these dimensions of wellbeing has become the basis of the majority of social government actions. Nevertheless, it has recently been shown that social contexts such as those of Latin America, characterized by fragile democracy, lack of governance and political instability, high levels of corruption, gender inequality, lack of competitiveness, insecurity, and environmental deterioration have negatively impacted the quality of life and undermined the effectiveness of anti-poverty strategies.

Some arguments strengthening this idea come from prominent experts and international organizations. Amartya Sen (1999) states that by virtue of the electoral process and critical public opinion, democratic governments have greater incentive to raise the living standards of the population. The United Nations Development Program (UNDP, 1997) has indicated that good governance is achievable with population participation, accountability, and transparency. This promotes rule of law, which is conducive to improved social wellbeing. This same organization (UNDP, 2006) states that violence and insecurity are determining factors in development and poverty reduction. The poorest countries and people are those most exposed to acts of violence. Low-income

sectors of the population view insecurity as an obstacle to overcoming disadvantages, and poor countries have greater difficulties in solving violence and insecurity problems than their more developed counterparts. In addition, the non-governmental organization Transparency International (2006) has affirmed that “corruption kills” because it feeds poverty. Corruption distorts distinct public programs, sidetracks their original purpose, diverts funds, and causes ineffective appropriation. The Global Competitiveness Report 2006-2007 points out that competitiveness is a combination of institutions, policies, and factors that determine the productivity level of a country. Stronger competitiveness will translate into higher rates of economic growth which is essential for driving development and mitigating poverty.

The cited examples reflect the way in which factors not traditionally considered in poverty measurements do in fact have considerable influence on poverty. In this context, the Ethos Poverty Index is a multidimensional instrument of poverty measurement in Latin America which considers not only issues pertaining to household needs but also elements that constitute an adequate environment for generating wellbeing.

3 Definition Of Poverty

The Ethos Poverty Index is based on the definition of poverty developed by *Fundación Ethos*,[1] which classifies poverty as a situation characterized by the incapacity to meet household and contextual needs that are essential to lead people to a state of wellbeing, based on the political, economic, and social reality of a given society.

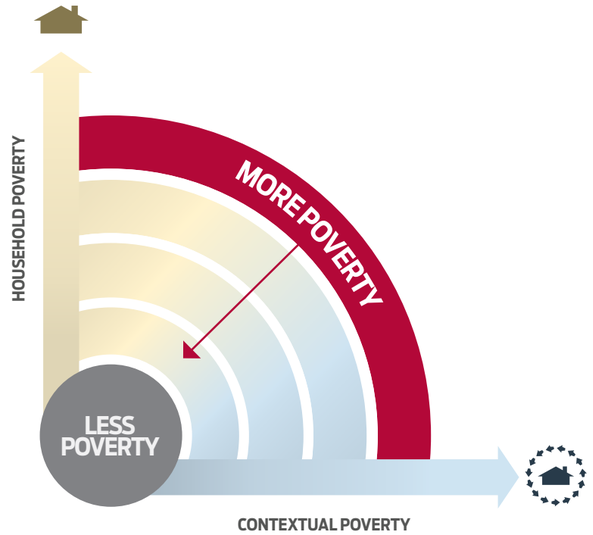
1 Fundación Ethos. "Hacia una nueva medición de pobreza para América Latina: Propuesta conceptual". June 2010, Mexico.

4 Components, dimensions, and variables of the Ethos Poverty Index

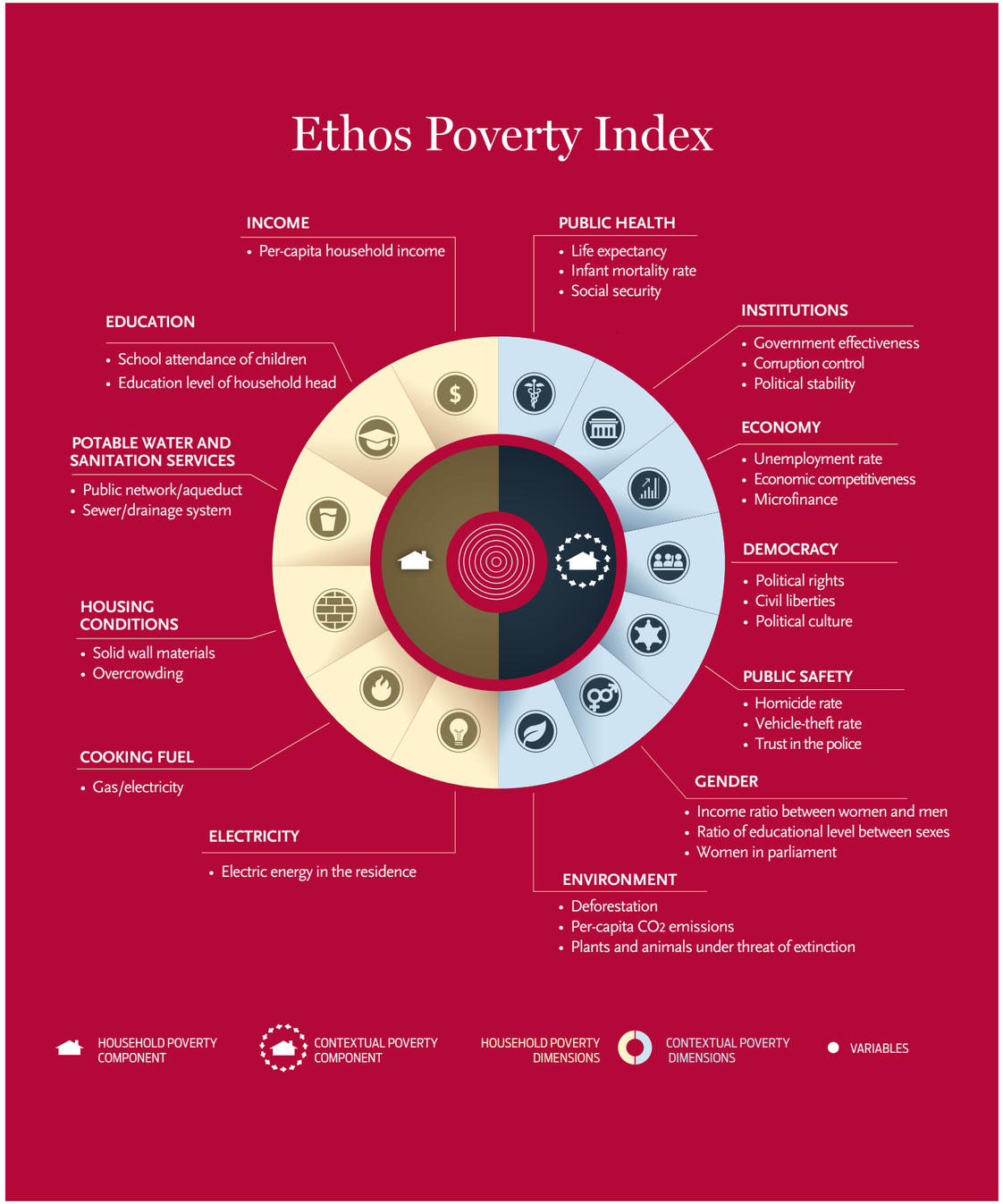
According to the aforementioned definition, the Ethos Poverty Index considers two components of wellbeing associated with the way in which deprivations may be analyzed.

The first component, called "Household Poverty", includes the dimensions of income, education, potable water and sanitation services, housing conditions (overcrowding and wall materials), cooking fuel, and electricity. In this case the level of aggregation is the household. The second component, called "Contextual Poverty", encompasses the characteristics of the area in which the individuals live, including the dimensions of public health, institutions, economy, democracy, public safety, gender, and environment.

The aggregation of data on Contextual Poverty is at country level. The technical impossibility of analyzing data at both household and country levels led to the proposal of generating an index with two components which embrace multiple dimensions of wellbeing. The following chart plots the components of the Ethos Poverty Index in the same plane, where a value closer to zero indicates less poverty.



The consideration of contextual characteristics in this multidimensional approach constitutes one of the most important contributions of the Ethos Poverty Index. Despite the progress made in measuring such variables, few endeavors contextualize their influence on the reality of Latin American poverty. Measurements that fail to include contextual variables are incomplete, since such variables influence poverty and reflect necessary conditions for overcoming poverty. The social environment in which individuals develop is essential for attaining higher standards of living and increasing the efficiency of government policies, programs, and actions aimed at fighting poverty. Hence the need to analyze this phenomenon and government efforts to eradicate it, to ensure that government actions are comprehensive and consider issues related to both household and contextual components.



5 Countries analyzed

The Ethos Poverty Index is constructed with data from eight countries in Latin America which together account for 79% of the total population of the region.

6 Ethos Poverty Index Ranking

The Ethos Poverty Index is obtained from the simple average of Household Poverty and Contextual Poverty components.

The results show the following:

COUNTRY	ETHOS POVERTY INDEX		HOUSEHOLD POVERTY		CONTEXTUAL POVERTY	
	RANKING	VALUE	RANKING	VALUE	RANKING	VALUE
CHILE	1	0.037	1	0.031	1	0.043
BRAZIL	2	0.080	3	0.092	2	0.068
MEXICO	3	0.082	2	0.077	3	0.086
COLOMBIA	4	0.125	6	0.146	4	0.104
PERU	5	0.140	5	0.144	5	0.135
VENEZUELA	6	0.150	4	0.122	6	0.178
ECUADOR	7	0.172	7	0.159	7	0.184
BOLIVIA	8	0.216	8	0.228	8	0.203

- Chile is the least poor country of the sample in the Ethos Poverty Index. This result holds both for Household Poverty as well as Contextual Poverty.

- Second and third place are held by Brazil and Mexico respectively. However, Mexico ranks higher than Brazil in Household Poverty while the opposite is true in Contextual Poverty.

- Colombia ranks fourth on the Ethos Poverty Index. Although this country has problems in terms of Contextual Poverty, its main challenges lie in Household Poverty where Colombia ranks sixth.

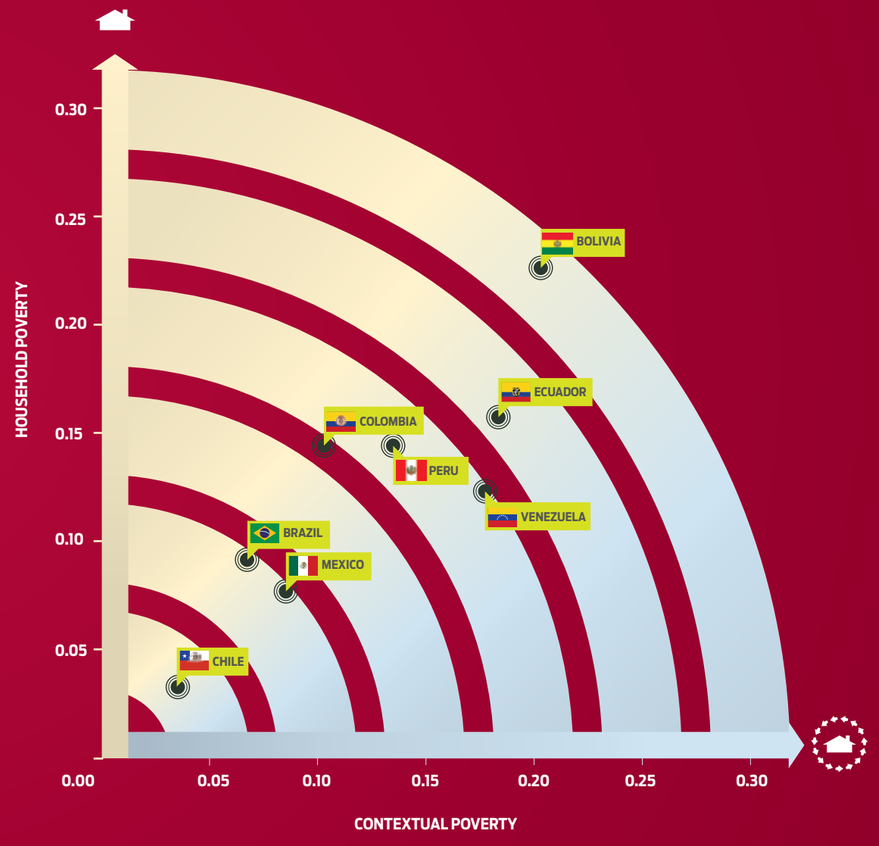
- Peru is in fifth place overall as a result of holding identical positions in both Household Poverty and Contextual Poverty.

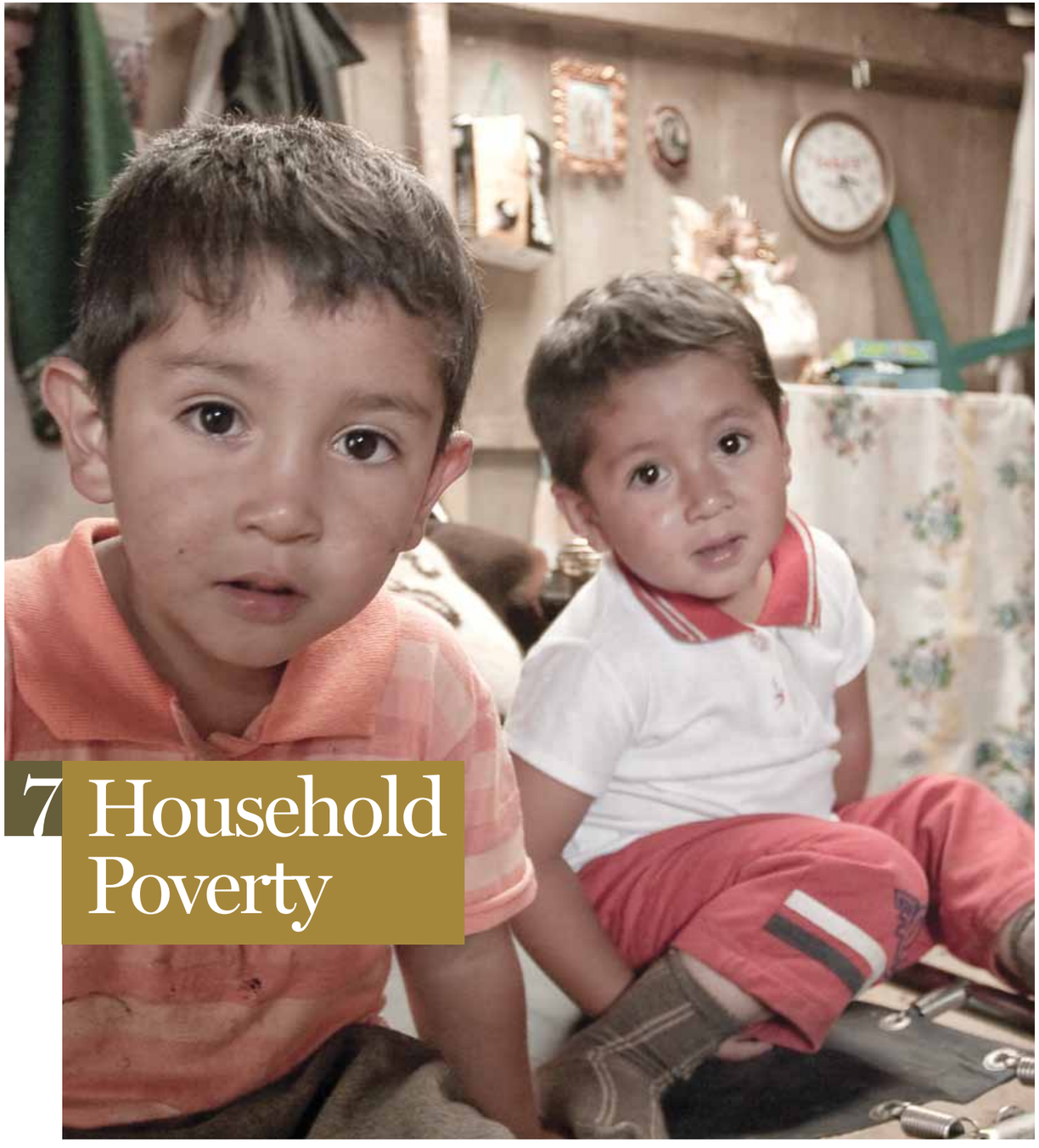
- Venezuela is in the middle of the Household Poverty table. However, a lag in Contextual Poverty adversely affects its Ethos Poverty Index ranking, lowering it to sixth place.

- Ecuador ranks seventh out of eight in the Index, holding the same ranking in both components.

- Bolivia is the poorest of the analyzed countries, holding last place in both components of the Ethos Poverty Index.

ETHOS POVERTY INDEX



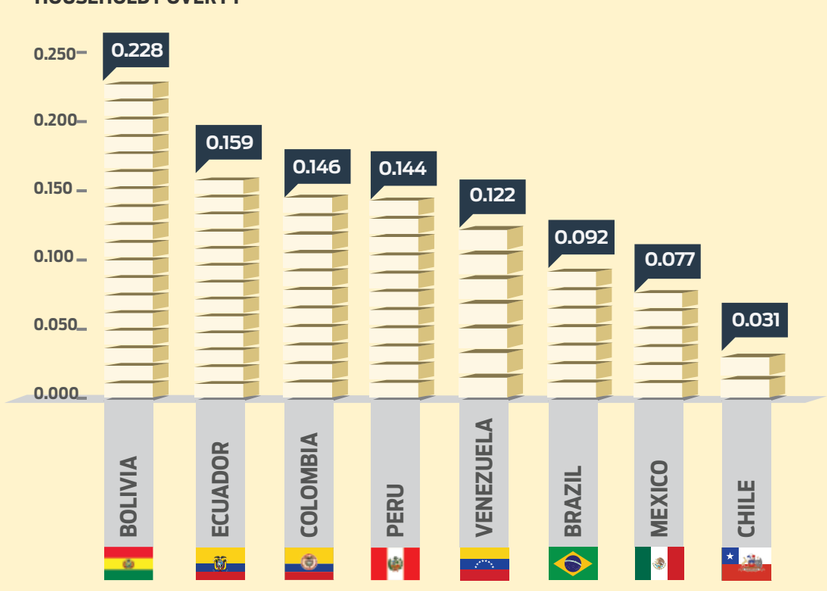


7 Household Poverty

The results of the Household Poverty component indicate that Chile, Mexico, and Brazil are the countries with the least poverty. Bolivia, meanwhile, is the most deprived nation, followed by Ecuador and Colombia.

The Household Poverty component is developed with the methodology proposed by Alkire and Foster (2007). Using microdata from household surveys, we obtain the intensity of poverty (M_0). This measurement considers the percentage of poor households (H) and the average percentage of household deprivations (A).

HOUSEHOLD POVERTY



7.1 Household Poverty Dimensions

The data of the variables that comprise the Household Poverty dimensions were obtained from the latest available results of household surveys conducted by official statistical institutes of the analyzed countries.[2]

The Household Poverty component considers six dimensions of wellbeing comprised of variables related to the characteristics of the household members and housing infrastructure: **1) per-capita household income**; **2) education** (education level of the household head and school attendance of children aged between 7 and 15 years); **3) potable water and sanitation services** (connection to public water network or aqueduct and connection to sewage or drainage system); **4) housing conditions** (solid wall material and overcrowding); **5) cooking fuel** (gas or electricity); **6) electricity** (power availability in the residence).

The variables comprising the dimensions of Household Poverty are weighted differently, giving priority to income and education.[3]

The selection of Household Poverty dimensions and variables was based on Amartya Sen´s Income, Capability, and Functionings approach, and Unsatisfied Basic Needs (UBN).

HOUSEHOLD POVERTY DIMENSIONS

1 Per-capita household income

2 Education

3 Potable water and sanitation services

4 Housing conditions

5 Cooking fuel

6 Electricity

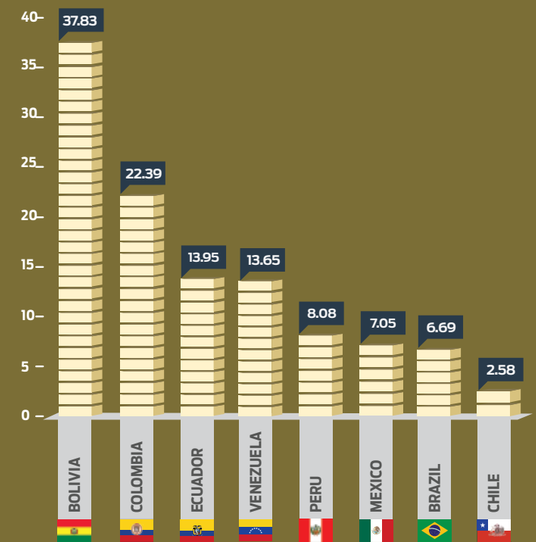
2 Bolivia: Encuesta de Hogares 2005; Brazil: Pesquisa Nacional por Amostra de Domicilios (PNAD) 2007; Chile: Encuesta de Calidad de Vida de los Hogares (CASEN) 2006; Colombia: Gran Encuesta Integrada de Hogares 2008; Ecuador: Encuesta de Condiciones de Vida 2006; Mexico: Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) 2008; Peru: Encuesta Nacional de Hogares. Condiciones de Vida y Pobreza 2008; Venezuela: Encuesta de hogares por Muestreo 2005.

3 Weights assigned to each variable followed the recommendations of Battiston et. al. (2009), Székely (2003) and Alkire and Foster (2007). Consult Section 1.5 of the Methodological Annex to see the weights of each variable.

Per-capita household income

In the Ethos Poverty Index, the income variable is used to characterize the lack of financial resources to cover the cost of adequate nutrition. An income threshold of 60 USD per person per month was set, which by Latin American standards appropriately reflects the minimum amount needed to purchase food. [4]

PERCENTAGE OF HOUSEHOLDS WITH A MONTHLY PER-CAPITA INCOME OF LESS THAN 60 USD



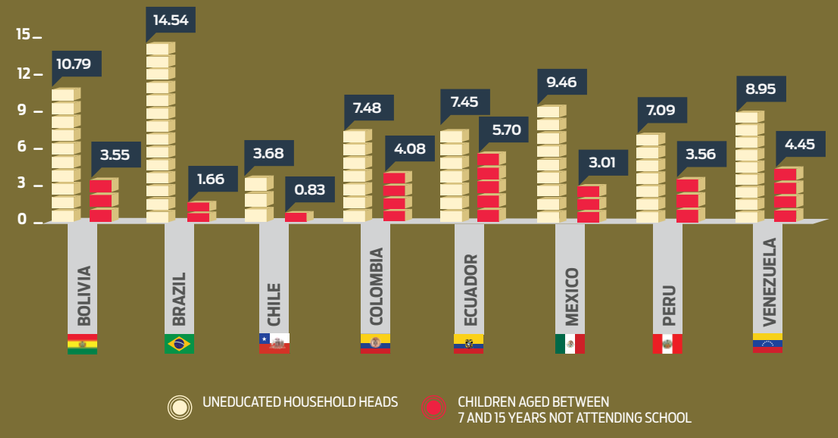
Bolivia, Colombia, and Ecuador have the highest proportion of households whose monthly per capita income is less than 60 USD, with 37.83, 22.39 and 13.95% respectively. At the other extreme is Chile, where only 2.58% of households do not have sufficient income for adequate nutrition.

4 The income of each country was standardized and adjusted according to the Purchasing Power Parity (PPP) of 2007 reported by the International Monetary Fund (IMF).

Education

The countries showing the highest percentage of households with uneducated household heads are Brazil, Bolivia and Mexico. In the case of households with low school attendance of children aged between 7 and 15 years, Ecuador presents the biggest problem. The countries with the lowest levels in the latter variable are Chile and Brazil.

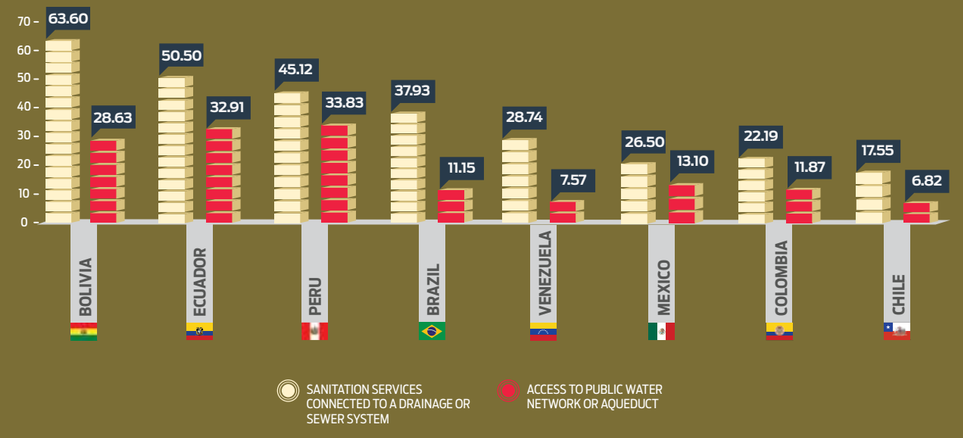
PERCENTAGE OF HOUSEHOLDS WITH UNEDUCATED HOUSEHOLD HEADS AND WITH CHILDREN AGED BETWEEN 7 AND 15 YEARS NOT ATTENDING SCHOOL



Potable water and sanitation services

The high percentage of homes lacking potable water and sanitation services is constant in all countries studied.[5] However, Bolivia and Ecuador are in a particularly serious situation regarding access to sanitation services connected to a drainage or sewer system. More than half of households in these countries lack the service. Peru has the highest percentage of households without access to potable water.

PERCENTAGE OF HOUSEHOLDS WITHOUT ACCESS TO PUBLIC WATER NETWORK OR AQUEDUCT AND WITHOUT SANITATION SERVICES CONNECTED TO A DRAINAGE OR SEWER SYSTEM

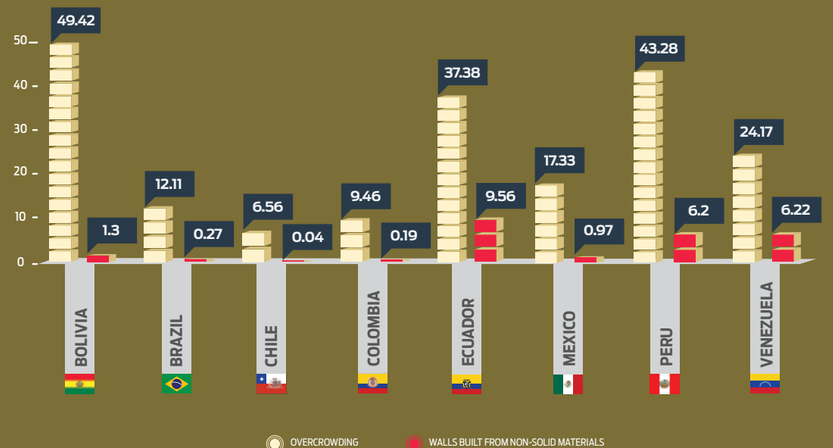


5 To standardize the variables of potable water and sanitation services, the ECLAC definitions found in paragraph 1.3 of this document's Methodological Annex were used.

Housing conditions

The percentage of households in the sample with walls predominantly built of non-solid materials is relatively low.[6] However, with respect to overcrowding, Bolivia, Peru, and Ecuador continue to present high percentages of households in which three or more people sleep in the same bedroom.[7]

PERCENTAGE OF HOUSEHOLDS WITH WALLS BUILT FROM NON-SOLID MATERIALS AND WITH OVERCROWDING



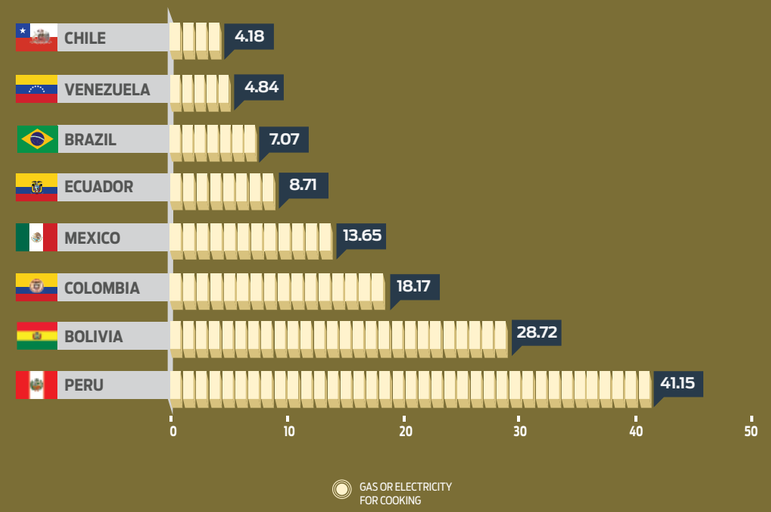
6 Deprivations in terms of walls built with non-solid material were based on the data shown below. Bolivia: pipe, palm or trunk; Brazil: straw; Chile: waste material and / or recycled materials; Colombia: sugar cane; mat; tile; cardboard; cans; waste; plastic. Ecuador: cane, Mexico: waste material; sheet cardboard; reed or bamboo. Peru: mat; Venezuela: cane; palm; boards; and the like.

7 Household overcrowding is considered to exist when there arethree or more people in a single bedroom.

Cooking fuel

The use of solid fuels such as wood or coal is still a common practice among Latin American households, causing serious risk of chronic respiratory diseases and environmental damage. This reflects the importance of including cooking fuel as a dimension when measuring poverty. Of the sample, Peru has the highest percentage of households without access to gas or electricity for cooking (41.15%), followed by Bolivia and Colombia.

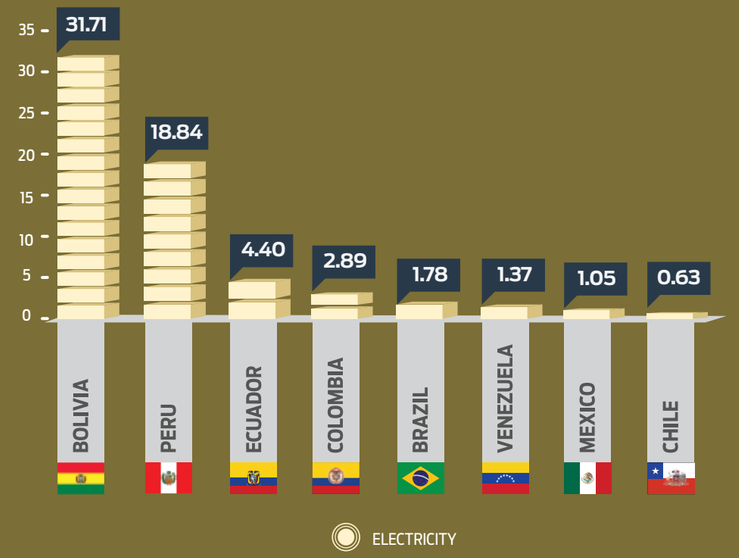
PERCENTAGE OF HOUSEHOLDS WITHOUT ACCESS TO GAS OR ELECTRICITY FOR COOKING



Electricity

The lack of electricity in the residence, which impacts issues ranging from food preservation to access to electronic media, is still very high in Bolivia and Peru. Fortunately, in the remaining countries, such deprivations exist only in a small percentage of households.

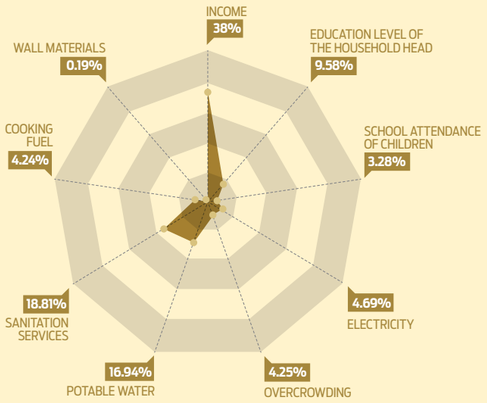
PERCENTAGE OF HOUSEHOLDS WITH NO ACCESS TO ELECTRICITY IN THE RESIDENCE



7.2 What most affects Household Poverty?

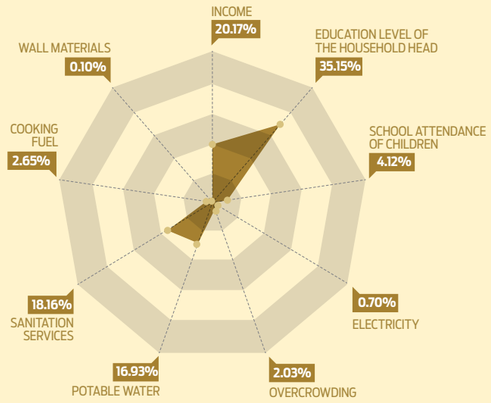
The methodology used for constructing the Ethos Poverty Index allows identification of how different variables affect the issue of Household Poverty in each country. Thus, not only is it possible to determine the effect of satisfying given needs to alleviate Household Poverty but also the policy areas where governments must redouble efforts as part of anti-poverty strategies.

Bolivia



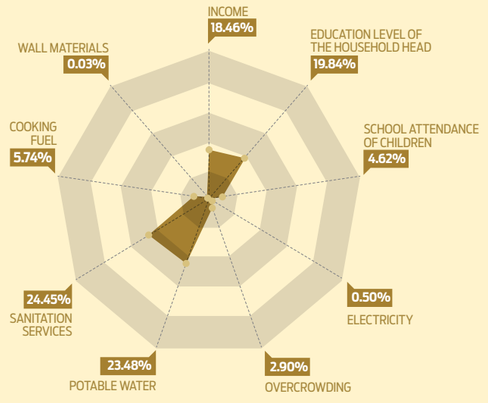
The most pressing problem in Bolivia concerns the income needed to achieve adequate nutrition. This variable contributes more than any other to Household Poverty (38%). As a result, the adoption of policies that more effectively help raise people's incomes would be a determinant in reducing poverty levels. It is also clear that this country has serious deficiencies in access to potable water and sanitation services. Together, these two variables account for 35.75% of Household Poverty.

Brazil



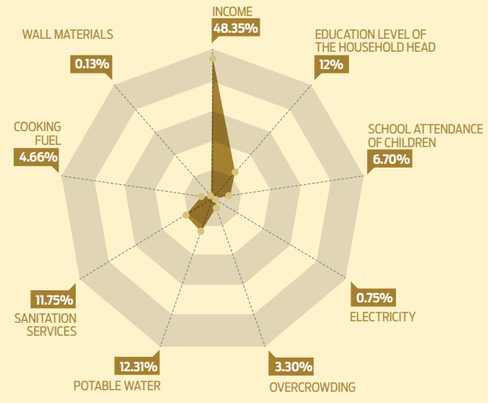
Although Brazil has improved its development level, it still has considerable social deprivations. The most worrisome of these is the high number of uneducated household heads, a factor which accounts for 35.15% of Household Poverty. Notwithstanding, recent reforms have led to higher school attendance of children, decreasing the impact of this variable on poverty figures and eventually leading to a more educated adult population. As in several of the other countries studied, Brazil's household income levels and access to sanitation services and potable water are relevant factors in Household Poverty.

Chile



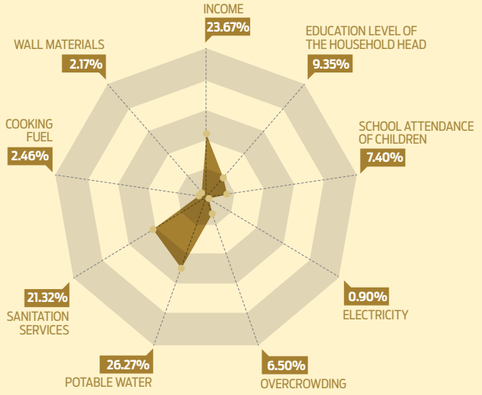
Chile is the country in the region with the least poverty, the result of a series of effective public policies on social and economic issues over several years. However, work still remains to be done, particularly regarding access to sanitation services and potable water. These factors account for 24.45% and 23.48% of Household Poverty, respectively. Additionally, reducing the percentage of uneducated household heads and those with low incomes represents a challenge for the future.

Colombia



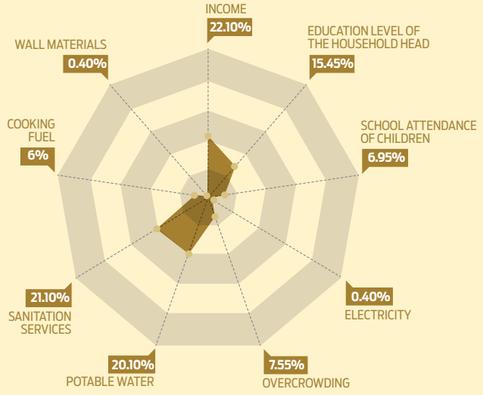
Colombia has serious problems in terms of insufficient income, as it is a reality among much of the population. This variable contributes 48.35% to Household Poverty, reflecting the urgent need for policies that adequately address the problem. Remarkably, the contribution of the income variable to Household Poverty in Colombia is the highest in comparison to any other variable among the rest of the countries studied. Moreover, although to a far lesser extent, access to potable water, education of household head, and sanitation services are factors that contribute significantly to poverty figures.

Ecuador



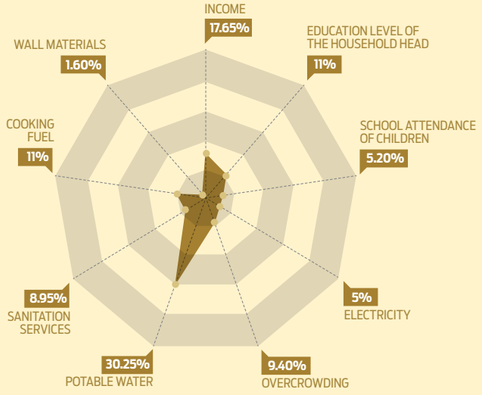
Ecuador's main problem lies in access to potable water, a variable which accounts for 26.27% of Household Poverty. With slightly lower percentages, income level and access to sanitation services are other areas that require further government attention. Although the variable associated with wall materials does not contribute significantly to Household Poverty, it does display a higher percentage in comparison with the other countries analyzed.

Mexico



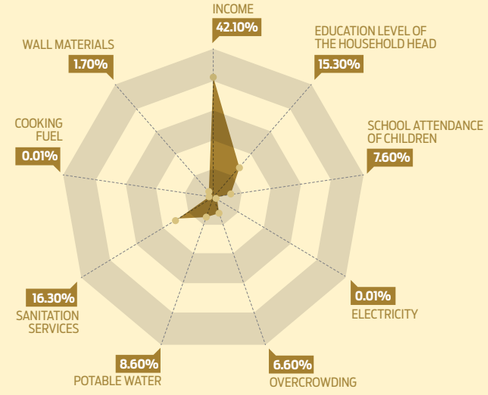
For this country, income contributes the most to Household Poverty (22.10%), followed by sanitation services and access to potable water, accounting for 21.10% and 20.10% respectively. Furthermore, it is important for Mexico to promote adult education and school attendance of children aged between 7 and 15 years. Improving education not only represents an imperative of wellbeing in itself but also a mechanism to raise the income level of the population.

Peru



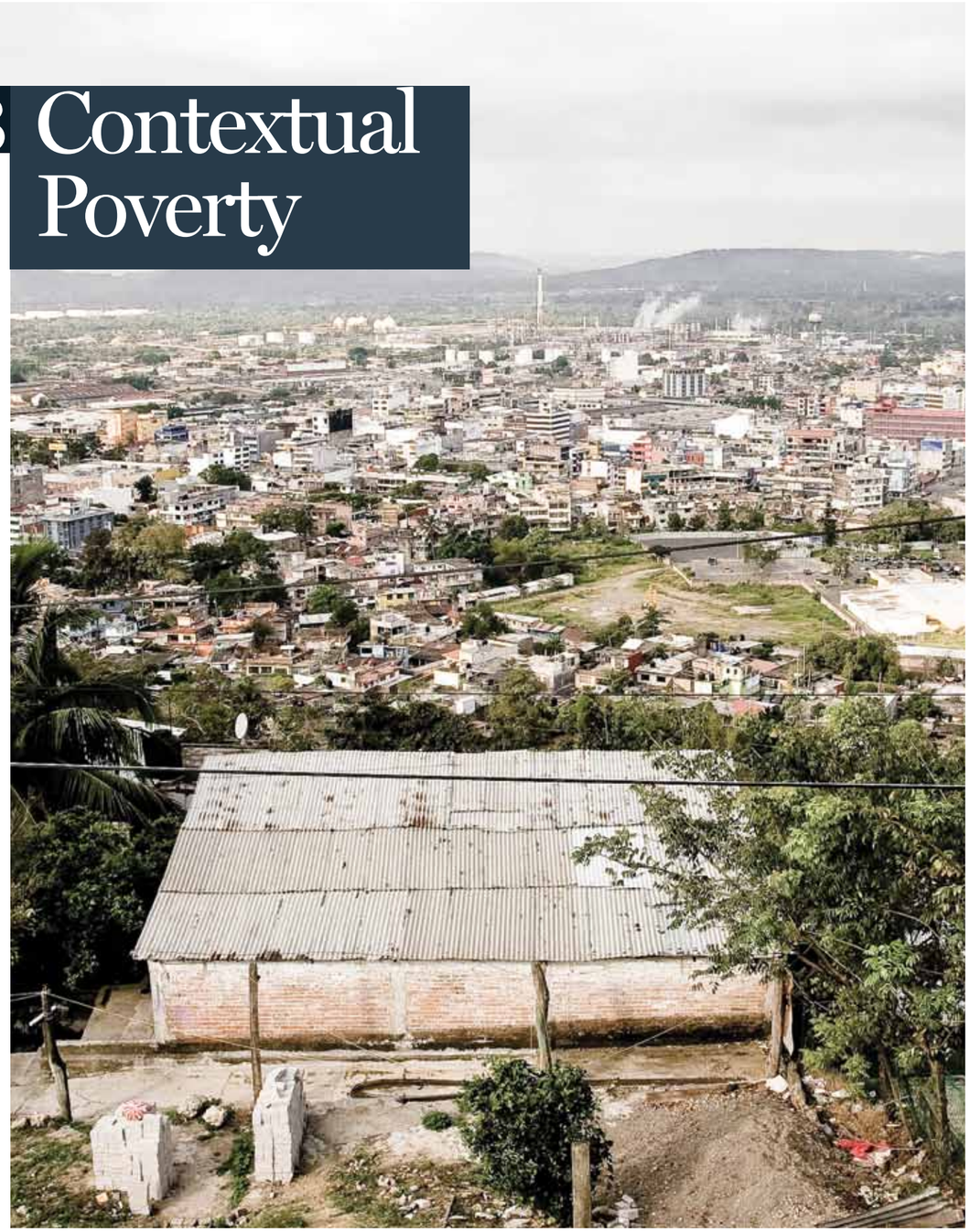
The biggest challenge facing Peru is access to potable water. This variable accounts for 30.25% of Household Poverty, far exceeding the impact of other variables. This situation clearly indicates where most policy efforts should focus. At 17.65%, income is the second factor that contributes to Household Poverty. Noteworthy is the significant impact of cooking fuel, which is a minor problem in the other countries.

Venezuela



Despite an increase in Venezuelan government revenues in recent years due to high oil prices, this has not translated to higher family incomes. Income continues to be a seriously lagging factor and at 42.10%, constitutes the main cause of Household Poverty. Sanitation services and household-head education contribute to a lesser extent, at 16.30% and 15.30% respectively. Access to potable water is another area that needs to be strengthened to reduce Household Poverty levels in this country.

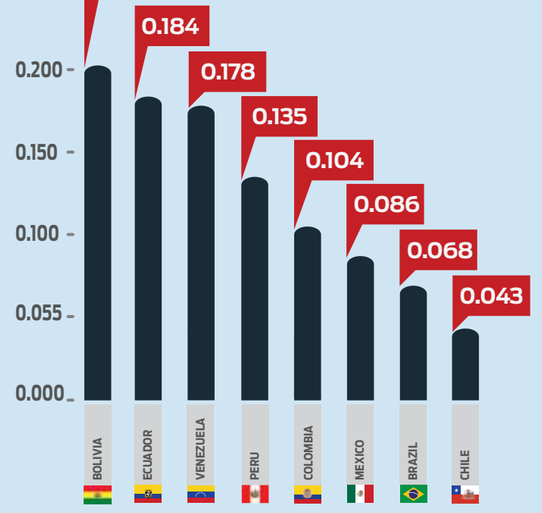
8 Contextual Poverty



Results show that Bolivia, Ecuador, and Venezuela are the countries with the highest Contextual Poverty values. In contrast, Chile, Brazil, and Mexico have the lowest.

The Contextual Poverty component follows the same methodology used for the Household Poverty.

CONTEXTUAL POVERTY



8.1 Contextual Poverty Dimensions

The Contextual Poverty component considers 21 variables, uniformly distributed among 7 dimensions: 1) **Public health**, 2) **Institutions**, 3) **Economy**, 4) **Democracy**, 5) **Public safety**, 6) **Gender** and 7) **Environment**.[8]

In order to detect if a country has need in any of the variables, the average value of each variable in the region is taken as a threshold, responding to the context and reality of Latin America.[9] Each of the dimensions comprising Contextual Poverty is weighted differently. The dimensions of public health and institutions are given more weight compared to economy, democracy, and public safety, the latter having greater weight than gender and environment.[10]

CONTEXTUAL POVERTY DIMENSIONS

1 Public health

2 Institutions

3 Economy

4 Democracy

5 Public safety

6 Gender

7 Environment

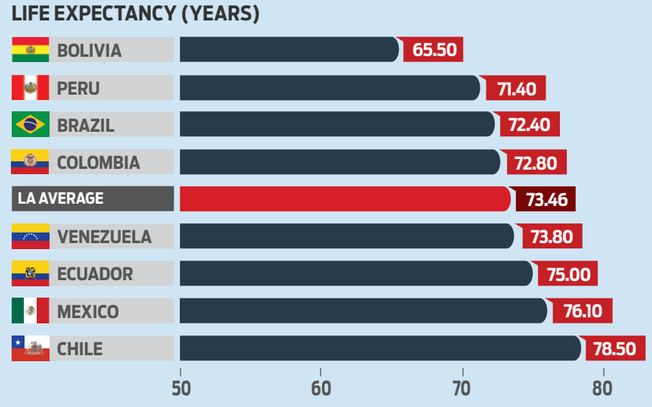
8 The description and source of the 21 variables that form the 7 dimensions of the Contextual Poverty component are shown in Section 2.1 of the Methodological Annex.

9 Eighteen countries were considered for the regional average: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela.

10 The weights assigned to each dimension are shown in paragraph 2.4 of the Methodological Annex of this document.

Public health

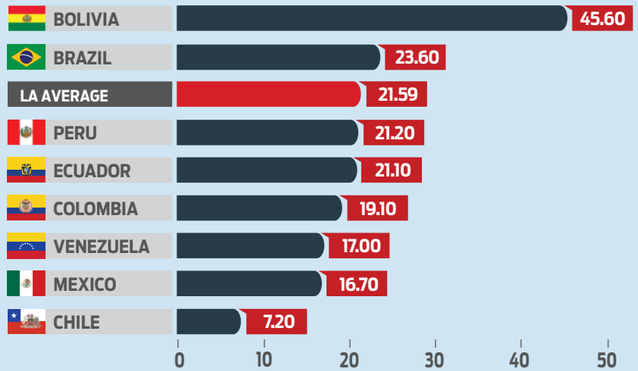
The possibility of enjoying long and healthy lives, along with access to health care, is one of the most influential factors affecting population wellbeing. Hence, need in these areas largely defines Contextual Poverty. The public health dimension incorporates the variables of life expectancy, mortality rate of children under one year, and access to social security,[11] using data supplied by ECLAC.



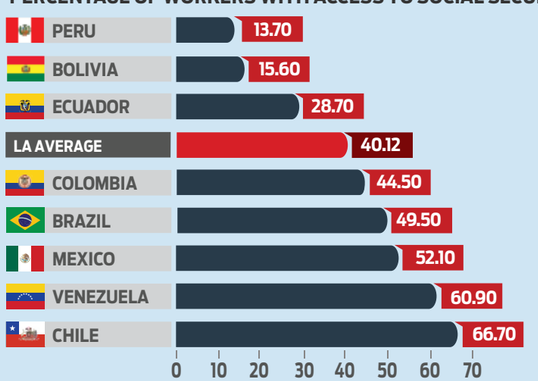
11 Social security of employed workers aged 15 years and over, with reported earnings. Bolivia, Brazil, Chile, Colombia, Mexico and Peru: contribution or membership to a pension and/or health system; Ecuador: contribution or membership to a national social security system; Venezuela: entitlement to social benefits (vacations, compensations, bonuses, pension contributions or other legislated rights).

Bolivia does not attain the Latin American average in any of the health variables. Of the countries analyzed in the Ethos Poverty Index, Bolivia shows the highest infant mortality rate (45.60%) and lowest life expectancy (65.5 years, while in the other nations it exceeds 70 years). In addition, this country faces huge challenges in social security coverage, as only 15.60% of employees have access to the service. Peru is the only country in the sample with lower social security figures. In contrast, Chile posts the best public health environment with a 7.20% infant mortality rate in the first year, a life expectancy of 78.5 years, and 66.70% of workers with social security entitlement.

MORTALITY RATE OF CHILDREN UNDER ONE YEAR



PERCENTAGE OF WORKERS WITH ACCESS TO SOCIAL SECURITY

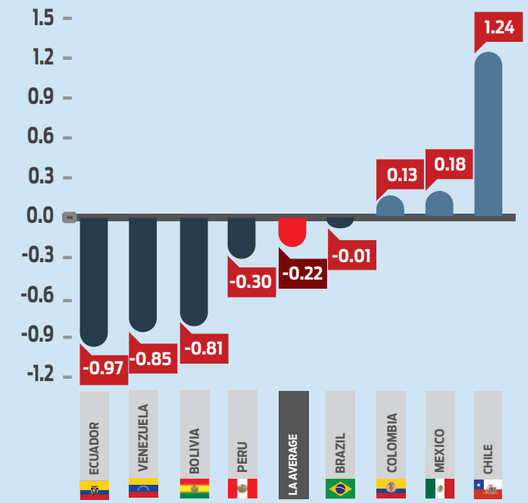


Institutions

Institutional environment is a determining factor in the reality of poverty that plagues society and the potential for fighting it. Using World Bank figures, the institutions dimension in Contextual Poverty incorporates the variables of government effectiveness, corruption control, and political stability.

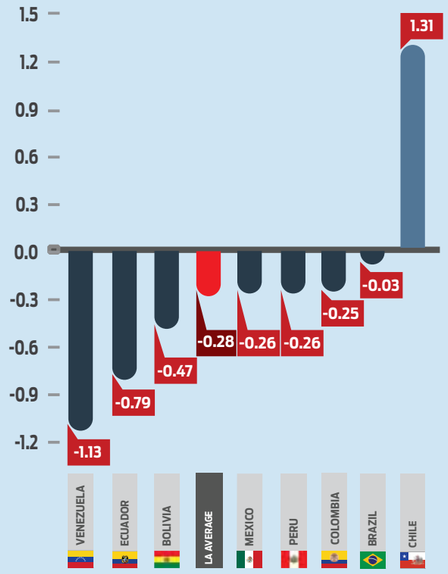
An effective government evaluates the quality of public services, bureaucracy performance, and transaction costs. The corruption control variable refers to the abuse of public power for private gain, including petty and large-scale corruption. Lastly, political stability concerns the risk of violent threats against the government.

GOVERNMENT EFFECTIVENESS

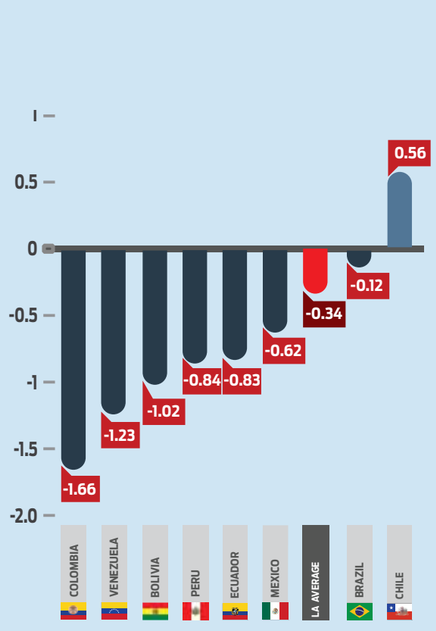


The aforementioned variables present unfavorable results in Latin America, as can be seen from the regional average. Using this average as a threshold highlights low government effectiveness figures from Ecuador, Venezuela, Bolivia, and Peru. In terms of corruption control, Venezuela, Ecuador, and Bolivia displayed the worst results of the sample. Regarding the variable of political stability, only Brazil and Chile surpassed the average for Latin America.

CORRUPTION CONTROL



POLITICAL STABILITY

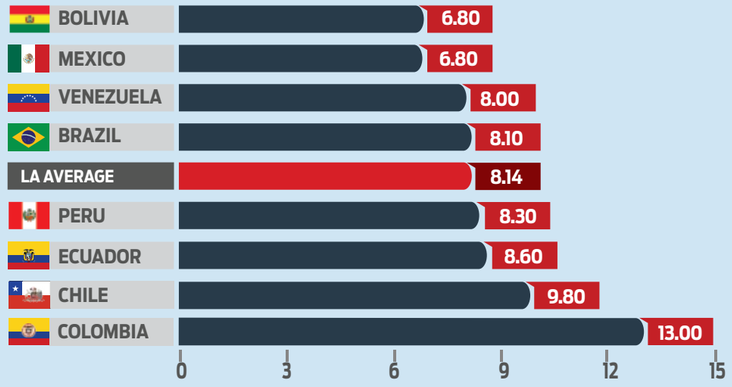


Economy

An adequate economic environment promotes public access to markets and production activities, representing a decisive element for increased levels of wellbeing. In the Ethos Poverty Index, the economy dimension is comprised of unemployment rate, competitiveness, and microfinance investment climate.

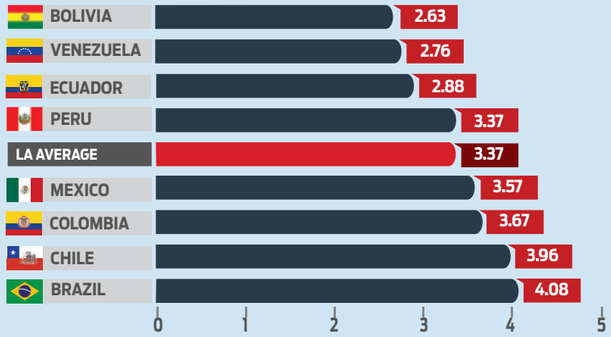
The unemployment rate is a particularly relevant variable given its direct relation to people´s income capacity. Based on data from ECLAC, Colombia and Chile display the highest unemployment rate of the analyzed sample while Bolivia and Mexico show the lowest.

ANNUAL AVERAGE UNEMPLOYMENT RATE



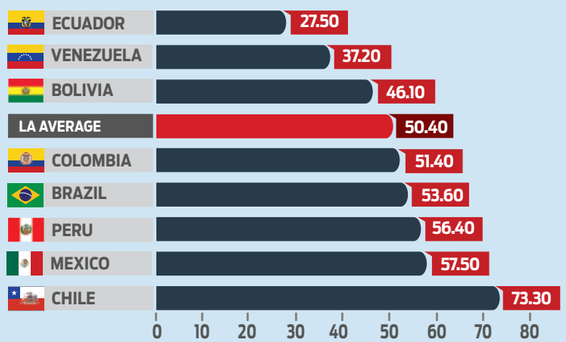
Competitiveness levels also play a pivotal role in economic environment due to their significant impact on the productive development of a country. The World Economic Forum (WEF) publishes an annual Global Competitiveness Index, which covers twelve key elements. For the purposes of Contextual Poverty, the competitiveness variable considers the average of three of these elements: physical infrastructure, innovation, and technology. In this context, the data show that Brazil and Chile are the most competitive countries while Bolivia and Venezuela are at the other extreme.

ECONOMIC COMPETITIVENESS (PHYSICAL INFRASTRUCTURE, INNOVATION, AND TECHNOLOGY)



Finally, one way to fight poverty is to promote mechanisms that allow people to overcome this condition through their own efforts, and one of the main mechanisms is access to financial tools. Based on data from the Global Microfinance Index compiled by the Economist Intelligence Unit, microfinance investment climate was selected as a variable. Chile, Mexico, and Peru post the best results while Ecuador, Venezuela, and Bolivia present the worst.

MICROFINANCE INVESTMENT CLIMATE

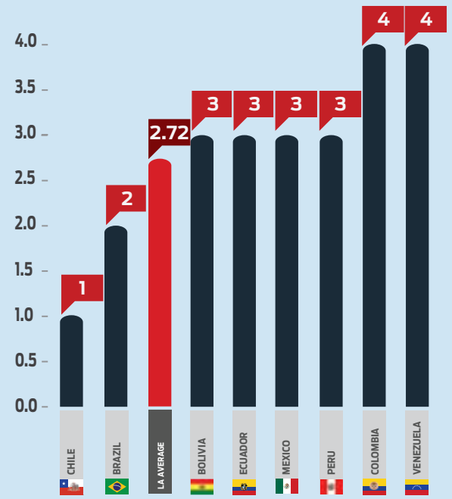


Democracy

Regimes with fragile democratic systems are characterized by a disregard for civil liberties and political rights, as well as poor political culture among their population, representing scenarios inconducive to overcoming poverty. The reason for this is clear: by not being subject to public scrutiny, governments have little or no incentive to raise the living standards of their people.

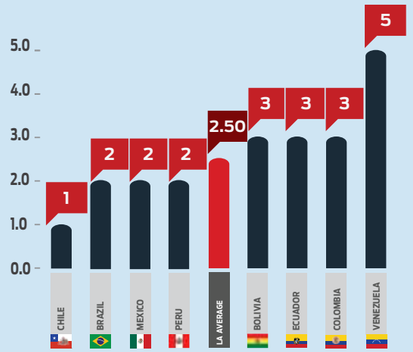
The Freedom House organization annually publishes a Civil Liberties Index and a Political Rights Index. This information was used for two of the three variables that comprise the democracy dimension in Contextual Poverty. The civil liberties variable considers issues related to freedom of expression and belief, freedom of association and organizational rights, rule of law, and human rights.

CIVIL LIBERTIES



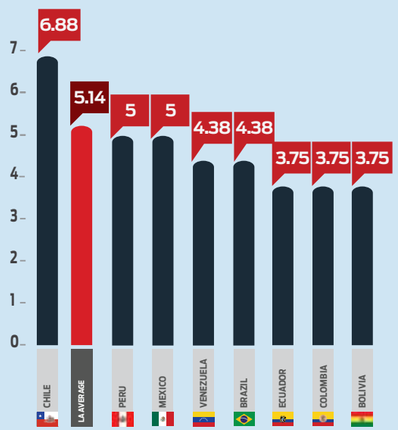
The political rights variable focuses on participation in the political process and includes the right to vote freely for different alternatives, compete for public office, join political parties and organizations, and elect representatives who have a decisive impact on public policy. The country with the highest score on political rights and civil liberties is Chile, while Venezuela has the lowest score.

POLITICAL RIGHTS



Political culture reflects the legitimacy, proper functioning, and sustainability of democracy, as well as the willingness of citizens to accept election results in a peaceful manner. Data from the Economist Intelligence Unit show that only Chile surpasses the regional average while the remainder of the countries appears to lack adequate political culture.

POLITICAL CULTURE

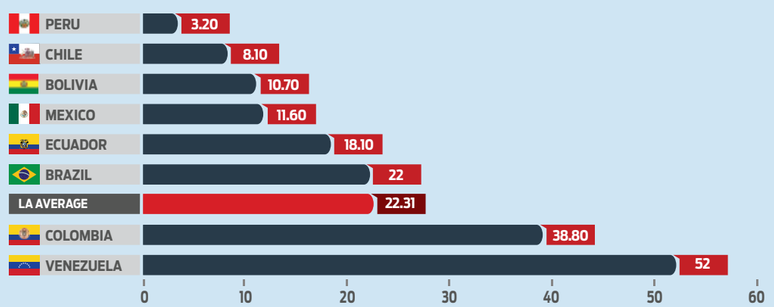


Public Safety

One of the major concerns of the Latin American population is public safety. According to a study conducted by the UNDP in 2006, public safety is a condition for development and poverty-reduction strategies since the poorest are most exposed to acts of violence, acting as an obstacle to overcoming their disadvantage. In addition, poor countries have greater difficulty in solving problems of violence and insecurity than those with higher levels of wellbeing.[12]

The variables comprised in the public safety dimension in Contextual Poverty are homicide rate and motor vehicle theft per 100,000 inhabitants and the level of trust in the police. The former two use data from the Inter-American Observatory on Security at the Organization of American States (OAS) while the data for the latter comes from a Gallup World Poll. The homicide rate, defined as the unlawful killing of one human being by another, constitutes the most extreme act of violence, making it a key indicator of insecurity.

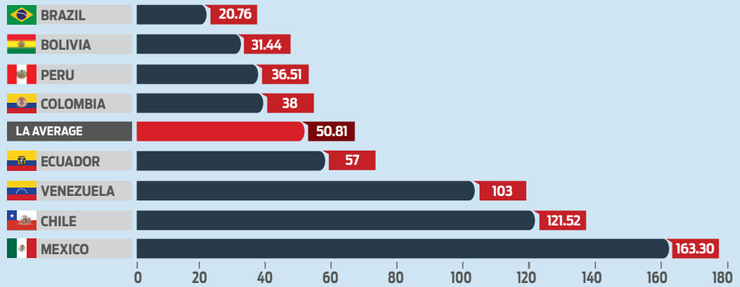
HOMICIDE RATE PER 100,000 INHABITANTS



12 UNDP, Álvarez, Alejandro (2006). "El estado de la seguridad en América Latina. Una aproximación a la evaluación situacional e institucional de la seguridad ciudadana en la región".

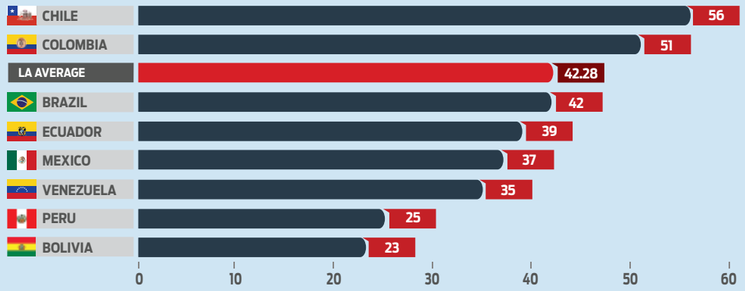
The vehicle theft rate reflects a more complex degree of delinquency and provides information on the level of organized crime.[13] Lastly, the variable of trust in the police reflects the existing perception of how institutions responsible for public safety function.

VEHICLE THEFT RATE PER 100,000 INHABITANTS



Among the studied countries, Venezuela shows the highest homicide rate, followed by Colombia and Brazil, while Mexico, Venezuela, and Chile stand out for their levels of vehicle theft. Regarding trust in the police, Bolivia and Peru display the worst results of the studied sample.

PERCENTAGE OF THE POPULATION WITH TRUST IN THE POLICE



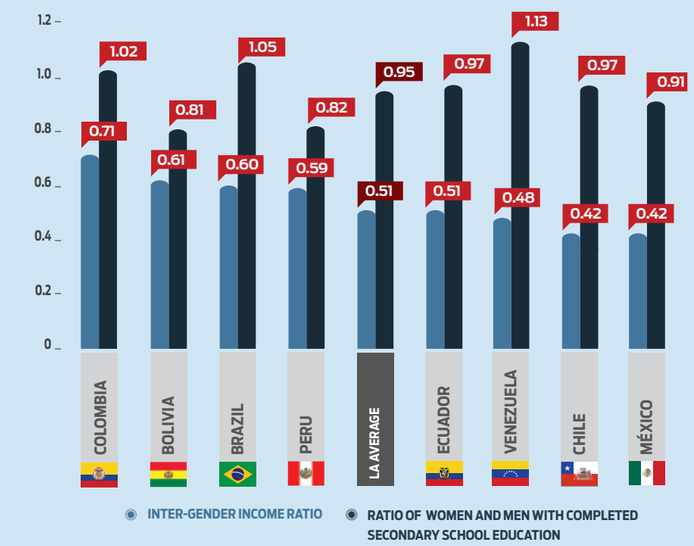
13 *Ibidem*, p. 75.

Gender

When women do not have the same opportunities for development, income, and decision-making as men, this causes social lag, marginalization, and poverty.

For the study of gender in Contextual Poverty, the variables considered are inter-gender income ratio, the ratio of women and men with completed secondary school education, and the proportion of women in parliament. The data was obtained from the UNDP.[14] Results show Chile and Mexico as having significant gaps in income between women and men.

RATIO OF INCOME AND COMPLETED SECONDARY SCHOOL BETWEEN WOMEN AND MEN

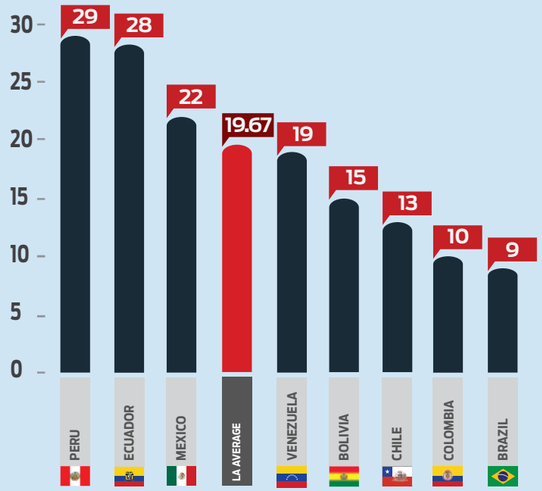


14 The variable of income ratio between women and men refers to non-agricultural per-hour-worked wage for women compared to non-agricultural per- hour- worked wage for men. The ratio of women to men with completed secondary education reflects the percentage of women aged 25 and over with at least completed secondary education compared to the percentage of men aged 25 and over with the same education level. The higher the value of these two variables, the greater the country´s performance in gender equality.

Moreover, although most countries throughout the world have made efforts to raise population education level, there remain countries like Bolivia and Peru where that has not occurred equally between the sexes.

Regarding the participation of women in political life, significant progress has been made in recent decades. Such is the case of Peru and Ecuador which have a greater number of women holding legislative seats, compared with other countries in the region.

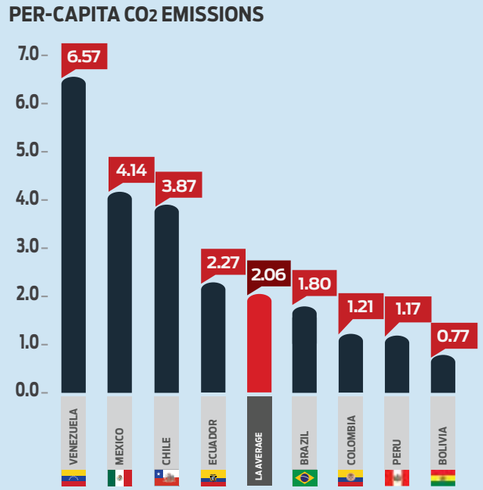
PARLIAMENTARY SEATS HELD BY WOMEN (PERCENTAGE OF TOTAL)

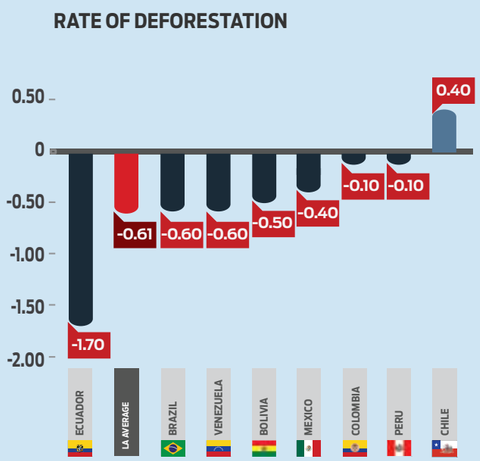


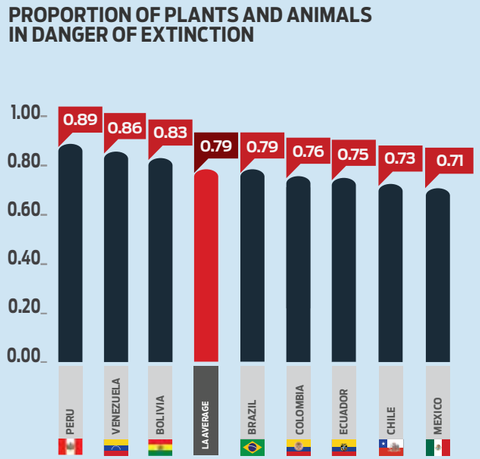
Environment

Environmental deterioration affects the population as a whole but mostly those with limited resources. Low-income people, to obtain resources in the short term, degrade the environment in an unsustainable and inappropriate form, causing the destruction of fertile soils for reforestation or planting of agricultural products, worsening their condition. Similarly, air pollution represents an important factor for respiratory diseases. Those living in poverty are the most vulnerable and have greater problems in obtaining medical treatment. Lastly, due to living in fragile rural areas and on the outskirts of urban zones, marginalized populations are more vulnerable to the effects of climate change such as floods and hurricanes.

The environment dimension takes data from the UN, ECLAC and FAO and includes the following variables: deforestation, per-capita CO_2 emissions, and plants and animals under threat of extinction. The deforestation variable indicates change in woodland area. Chile is the only country in the sample that has expanded its forest area while Ecuador shows the poorest results. Moreover, the main factor responsible for intensified greenhouse effect and climate change is CO_2 emissions. The countries with the highest per-capita CO_2 emissions are Venezuela, Mexico, and Chile. Regarding the proportion of plants and animals threatened with extinction, the results are relatively similar among the countries analyzed, although Mexico has the best figures in the field.







8.2 What most affects Contextual Poverty?

The countries with the highest Contextual Poverty are Bolivia, Ecuador, and Venezuela. Remarkably, the most influential factors are similar in every case.

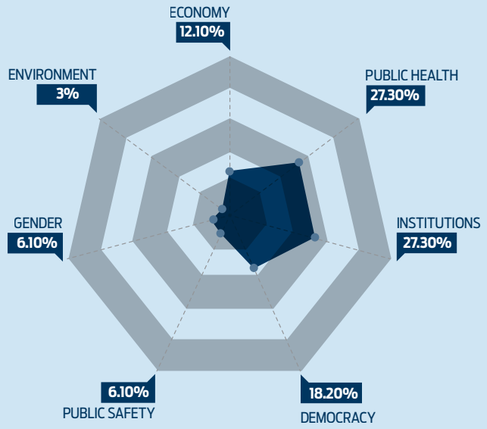
The dimensions contributing most to poverty figures in Bolivia are public health, institutions, and to a lesser extent, democracy, while in Ecuador the latter two dimensions, along with economy, have the highest impact. For Venezuela, the fragility of democracy and institutions, together with insecurity, accounted for 72.5% of its Contextual Poverty.

Compared to the aforementioned countries, Peru and Colombia have, in the aggregate, a better context. In Peru, the issues of public health, institutions and democracy have the most effect on Contextual Poverty. Colombia shares the same three dimensions as major determining factors, although democracy contributes to poverty figures twice as much as institutions and public health.

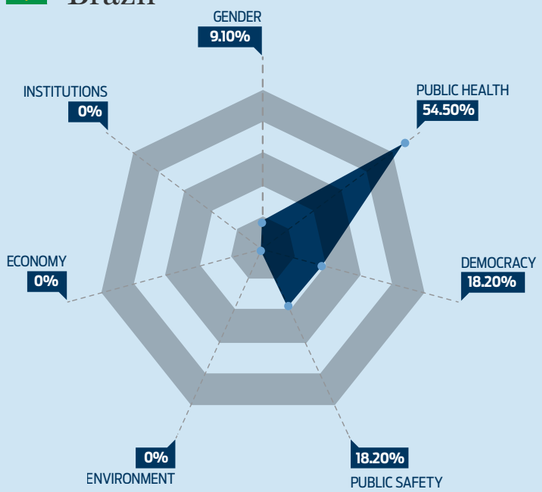
Although Chile, Brazil and Mexico perform the best in Contextual Poverty dimensions, they nonetheless display problems in specific areas. In Chile, for example, issues associated with gender equality, public safety, and economy cause the most concern. For Brazil, public health presents a higher percentage than all the other dimensions put together. Lastly, Mexico needs to fundamentally address security, as well as strengthen the democratic and institutional environment to improve Contextual Poverty.

The following graphs show the contribution of each dimension to Contextual Poverty. The dimensions with the value of zero are those in which each of the countries displayed results above Latin American average and so, for Ethos Poverty Index purposes, are considered to have no deprivation.

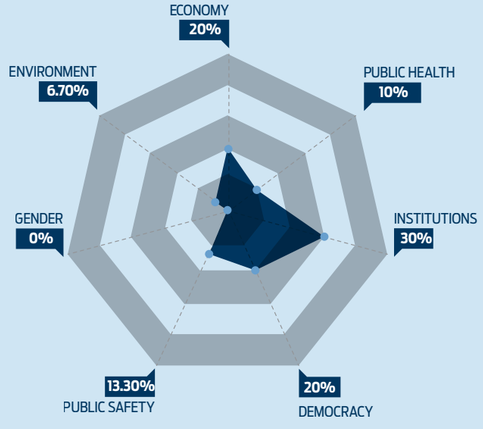
Bolivia



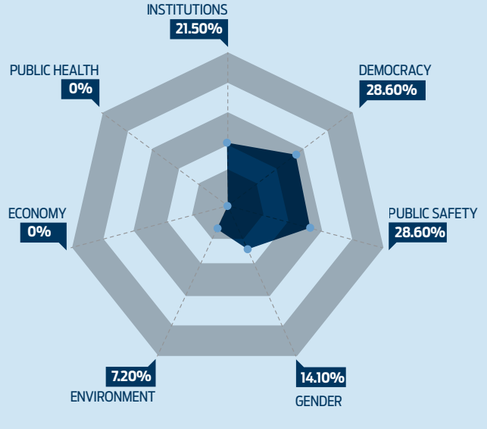
Brazil



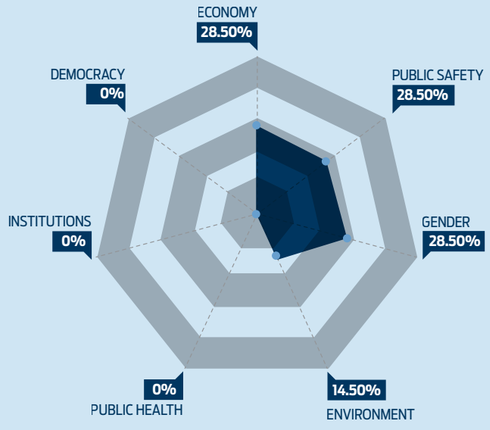
Ecuador



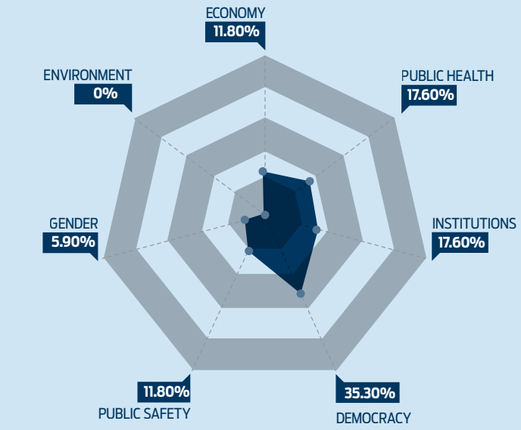
Mexico



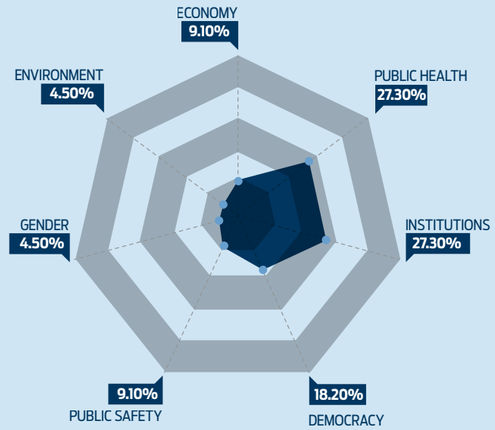
Chile



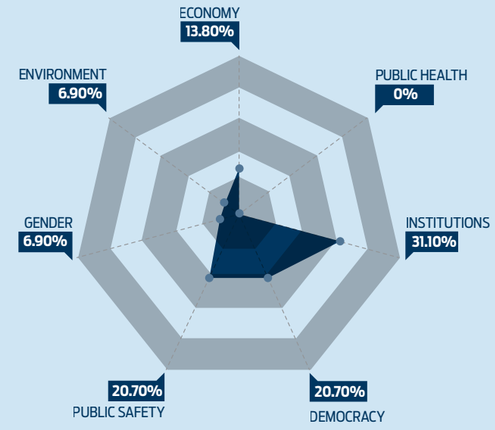
Colombia



Peru



Venezuela



9 Conclusions

The Ethos Poverty Index is a multidimensional measurement that aims to provide a greater understanding of poverty and its causes.

The incorporation of Contextual Poverty variables as a complement to those customarily considered in other measurements (grouped for this exercise into Household Poverty), seeks not only to obtain a more complete and realistic view of this phenomenon but also to identify policy tools that can contribute to poverty mitigation from a comprehensive perspective. This stems from the conviction that poverty is not just a situation of insufficient income, but rather a lack of liberties, rights, and capabilities.

According to this view, poverty is manifested not only in limitations suffered by individuals to meet their needs of income, education, housing, and basic services, but also in issues existing at a collective level (public health, institutions, economy, democracy, public safety, gender equality, and environment) and which prevent individuals from fully developing as persons. Moreover, the consideration of contextual variables in any poverty study is justified because they constitute the conditions that must prevail in a society to overcome poverty.

It is interesting to analyze the effect generated by the contextual component in the final result of the Ethos Poverty Index. As a result of this calculation, the positions of Brazil, Mexico, Colombia and Venezuela have changed in comparison with those reported by the Household Poverty component alone. In other words, the inclusion of contextual variables provides a different perspective on poverty-related conditions in the countries studied.

Of particular interest is what occurred with Colombia and Venezuela. The former country moved up two positions in the final ranking because of the values obtained from Contextual Poverty variables. In contrast, Venezuela was the country most affected by this component because despite ranking fourth in Household Poverty, negative results in the majority of the contextual variables were sufficient to lower this nation to sixth place in the Ethos Poverty Index. This reveals the need to urgently address such issues, not only because of their importance per se and for building more developed and fair societies but also for preventing further deterioration of the social conditions evident in Household Poverty.

Chile is the country with lowest poverty rates, showing strength in both components of the Index. In contrast, Bolivia and Ecuador display the worst results, with scores far below those that come above them in the ranking and serious challenges in most aspects of both Household and Contextual Poverty. The conclusion can be drawn that success in fighting poverty is achieved by addressing not only the needs of a person and his family, but also the context in which they develop, and performance in one component determines the chances for improvement in the other.

Some of the specific findings are:

- The poverty gap in Latin America is significant, a fact confirmed by noting the difference in scores between countries such as Chile and Bolivia.
- Raising income levels and potable water availability would result in a significant reduction in Household Poverty in the sample of countries studied.
- Countries with weak institutional environment are the poorest in the Ethos Poverty Index.
- While economic factors do have a significant impact on poverty, this is not absolute as traditionally conceived. For example, Bolivia has the lowest unemployment rate and is at the bottom of the Ethos Poverty Index while Chile, despite its high unemployment rate, shows the best overall ranking results.
- There is a “new” type of poverty (Contextual Poverty), the study of which should be deepened and integrated into analyses and measurements with conceptual flexibility, so as to incorporate the dimensions that will become relevant in the future for the wellbeing of people and society.

Methodological Annex

1. METHODOLOGY FOR MEASURING HOUSEHOLD POVERTY

For the Household Poverty component, the method proposed by Alkire and Foster (2007) was applied. This method provides a value of the intensity of the poverty (M_0), which is the result of the product of the percentage of poor households (H) and the proportion of variables in which households have needs (A).

The Alkire and Foster method (2007) consists of the following:

M_0 measures poverty in v variables for n households. Let $y=[y_{ij}]$ denote the $n*v$ matrix of achievements for household i across j variables, then $y_{ij} \geq 0$ represents household i achievement in variable j. Each row vector $y_i = (y_{i1}, y_{i2}, \ldots, y_{iv})$ gives household achievements in the different variables while each column vector $y_{.j} = (y_{j1}, y_{j2}, \ldots, y_{nj})$ gives achievements in dimension j across households. M_0 allows for weighting each variable differently. To do this, a defined weight vector w was used. The element w_j represents the weight applied to variable j. Note that $\sum_{j=1}^{v} w_j = v$, namely, the sum of the weights of each variable equals the total of the variables considered. Note that in our case, $v=9$.

To identify who is poor, different types of cutoffs are applied. First, identify all households with deprivation in any variable. Let $z_j > 0$ be the poverty line in variable j and z be the vector of poverty lines for each of the multidimensional poverty variables. Define a matrix of deprivations $g^0 = [g_{ij}^0]$ whose typical element g_{ij}^0 is defined $g_{ij}^0 = w_j$ when $y_{ij} < z_j$ and $g_{ij}^0 = 0$ when $y_{ij} \geq z_j$. In other words, the ij^{th} entry in the matrix is equivalent to the weighted w_j variable when household i has deprivations in dimension j and zero when the household does not. From the matrix g^0 construct a column vector c of deprivations $c_i = \sum_{j=1}^{v} g_{ij}^0$ that represents the weighted sum of the household i needs. Second, identify who is considered to be in multidimensional poverty. For this, select a second cutoff $K>0$ and apply across the column vector c. The Ethos Poverty Index follows the recommendation of Bourguignon and Chakravarty (2003).

In terms of the second cutoff, the authors consider a value of $K=1$, so that a household is considered poor if it has at least one need in the variables considered.

M_0 is expressed as the product of two measures: the percentage of poor households (H) and the average percentage of need of the poor (A). In other words, $H=q/n$ where q equals the number of poor households. H represents the impact of multidimensional poverty. A is obtained from $c_i(k)/v$ which indicates the fraction of the variables considered in which household i has need. The average of this fraction (of those who are poor q) is A, which is expressed as $A = \sum_{i=1}^{n} c_i(k)/vq$. A represents the intensity of the multidimensional poverty.

Thus, M_0 has an advantage over H: it is sensitive to the number of needs of the poor, in other words, it satisfies the monotonicity property (Alkire and Foster 2007, p.16). In addition, M_0 can be decomposed or broken down by subgroups and by variables or dimensions. These properties are used to identify the factors that cause poverty, its evolution, and differences between countries. Formally, the decomposition between dimensions can be expressed as: $M_0 = \sum_{j=1}^{v} \mu(g_{*j}^0(k))/v.$, the contribution of the variable j to multidimensional property can be expressed as: $Contr_j = (\mu(g_{*j}^0(k)/v)\,/M_0$

1.1. DATA

The information for construction of the Household Poverty component comes from the databases of the latest household surveys conducted by the official statistical institutes of each of the countries analyzed.

TABLE 1. HOUSEHOLD POVERTY INFORMATION SOURCES

COUNTRY	SOURCE	YEAR	INSTITUTION RESPONSIBLE	SAMPLE AREA	TOTAL NUMBER OF HOUSEHOLDS
BOLIVIA	Encuesta de Hogares	2005	Instituto Nacional de Estadística	National, rural and urban	4,260
BRAZIL	Pesquisa Nacional por Amostra de Domicilios (PNAD)	2007	Instituto Brasileiro de Geografía e Estatística	National	147,851
CHILE	Encuesta de Calidad de Vida de los Hogares (CASEN)	2006	Ministerio de Planificación y Cooperación (MIDEPLAN) de Chile y el Departamento de Economía de la Universidad de Chile	National, rural and urban	73,720
COLOMBIA	Gran Encuesta Integrada de Hogares	2008	Departamento Administrativo Nacional de Estadística (DANE)	National, rural and urban	150,225
ECUADOR	Encuesta Condiciones de Vida	2006	Instituto Nacional de Estadísticas y Censos (INEC)	National, rural and urban	13,581
MEXICO	Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH)	2008	Instituto Nacional de Estadística, Geografía e Informática (INEGI)	National, rural and urban	29,468
PERU	Encuesta Nacional de Hogares, Condiciones de Vida y Pobreza	2008	Instituto Nacional de Estadística e Informática (INEI)	National, rural and urban	22,640
VENEZUELA	Encuesta de Hogares por Muestreo	2005	Oficina Central de estadística e Informática (OCEI)	National	37,838

1.2 SELECTION OF VARIABLES

The variables comprising the Household Poverty component were selected from Amartya Sen's Income, Capability and Functionings approach, and the Unsatisfied Basic Needs approach (UBN).

Battiston *et al* (2009), state that both the Unsatisfied Basic Needs approach (UBN) and the Income approach capture

important aspects of poverty. The UBN approach provides certainty of household needs by direct observation. The Income approach provides knowledge about the resources that individuals have to satisfy certain needs. Thus, the joint inclusion of variables that are considered in these two approaches is relevant to the study of poverty. The Ethos Poverty Index included in its estimate the per-capita income of households in each country, converted to 2007 dollars and adjusted for 2007 Purchasing Power Parity (PPP) reported by the International Monetary Fund. In addition, the Index considers variables commonly used in the UBN approach: access to potable water through public network or aqueduct, sanitation services connected to sewage or drainage system, wall materials, overcrowding, cooking fuel, and electricity. Other variables that were included in the Ethos Poverty Index following the UBN and Capability and Functionings approaches include the education level of the household head and school attendance of children aged between 7 and 15 years. In the absence of comparable health variables among surveyed households, this dimension was incorporated into the Contextual Poverty component.

1.3. CERTIFICATION OF THE HOUSEHOLD POVERTY VARIABLES

Per-capita household income. The per-capita household income estimate of each country was converted to 2007 dollars and adjusted for 2007 Purchasing Power Parity (PPP) reported by the International Monetary Fund.

Wall material. Needs regarding walls built with non-solid materials were standardized according to the following criteria: Bolivia: cane, palm or trunk; Brazil: straw; Chile: waste and/or recycled materials; Colombia: sugar cane, mat, cloth, cardboard, cans, waste, plastic; Ecuador: cane; Mexico: waste material, cardboard sheet, reed or bamboo; Peru: mat; Venezuela: cane, palm, boards and the like.

Overcrowding. Three or more persons per bedroom.

Standardization of the variables of potable water, sanitation services, and electricity were based on the definitions of ECLAC:

Potable water. Households with potable water are those with access to uncontaminated water, without devoting a disproportionate amount of time to access it. Bolivia: public network (inside or outside the residence but inside the building) and private network; Brazil: water from public network in at least one room of the residence (general distribution network with an internal connection) and outside the residence but inside the property (general distribution network without internal connection); Chile: public network with own meter, public network with shared meter and public network without meter (inside the residence and inside the building but outside the residence); Colombia: aqueduct; Mexico: piping inside the residence, piping outside the residence but inside the

property; Ecuador: public network and truck delivery; Peru: public network (inside the residence as well as outside the residence but inside the building); Venezuela: running water through pipes.

Sanitation services. Households connected to sewage systems and households that have access to collection and disposal systems (with or without treatment) of human excreta. Bolivia / Brazil / Chile / Colombia and Ecuador: toilet (w.c.) connected to sewer system (public / general); Mexico: toilet connected to the street; Peru: toilet connected to public network (inside the residence and outside the residence but inside the building); Venezuela: toilet, w.c., sewer, or septic tank.

Electricity. Bolivia/Venezuela: electric lighting; Brazil: electric lighting (network, generator, solar); Chile: electric energy from public network, a personal or community generator, or another source; Colombia: electric lighting; Ecuador: electricity from public and private services; Mexico: electric light from public service, storage battery, and private generator; Peru: electricity and generator.

1.4 CUTOFFS ESTABLISHED FOR HOUSEHOLD POVERTY MEASUREMENT

TABLE 2. CUTOFFS ESTABLISHED FOR MEASUREMENT OF HOUSEHOLD POVERTY

DIMENSION	VARIABLES	THRESHOLD
INCOME	Per-capita household income	Per-capita household income less than 60 dollars a month
EDUCATION	Education level of household head	Household head with no schooling of any kind
	School attendance of children aged between 7 and 15 years	Any child in the family aged between 7 and 15 years not attending school
POTABLE WATER AND SANITATION SERVICES	Potable water	Without any public network or aqueduct
	Sanitation Services	Without any sewage or drainage system
HOUSING CONDITIONS	Wall material	Walls built with non-solid material
	Overcrowding	Three or more persons per bedroom
COOKING FUEL	Gas/electricity	With no gas or electricity for cooking
ELECTRICITY	Electric power	With no electricity in the residence

1.5 WEIGHTS

Weighting in the context of a multidimensional index relates to the relative weight that each considered variable is assigned. The weights of the variables of Household Poverty were defined according to criteria of expert opinion, as recommended by Battiston *et al* (2009), Székely (2003) and Alkire and Foster (2007).

TABLE 3. HOUSEHOLD POVERTY WEIGHTS

VARIABLE	WEIGHT
INCOME	2.4
EDUCATION LEVEL OF HOUSEHOLD HEAD	1.8
SCHOOL ATTENDANCE OF CHILDREN AGED BETWEEN 7 AND 15 YEARS	1.8
WATER SOURCE	1.2
SANITATION SERVICES	0.6
SOLID WALL MATERIAL	0.3
OVERCROWDING	0.3
COOKING FUEL	0.3
ELECTRICITY	0.3
TOTAL	9

2. METHODOLOGY FOR MEASURING CONTEXTUAL POVERTY

Contextual Poverty likewise follows the methodology proposed by Alkire and Foster (2007). In order to measure Contextual Poverty, we used data aggregated by country due to the lack of household information. In this case, a country is considered poor in one of its dimensions if each of those dimensions contains at least one deprivation. The percentage of dimensions with deprivations (poor dimensions) will be value *H*. The value of *A* will be the average of the proportion of deprivations of the poor dimensions. In the end, *M0* is reached by multiplying *HxA*.

2.1. DATA

The information used for constructing the Contextual Poverty component was obtained from different sources.

TABLE 4. DESCRIPTION AND SOURCES OF THE CONTEXTUAL POVERTY VARIABLES

VARIABLE	DESCRIPTION	SOURCE	YEAR
PUBLIC HEALTH			
LIFE EXPECTANCY	Life expectancy at birth for both sexes	ECLAC	2009
INFANT MORTALITY RATE	Infant mortality rate under one year (per 100,000)	ECLAC	2009
SOCIAL SECURITY	Social Security coverage. Refers to the social security of employed workers aged 15 and over and who reported earnings. Bolivia, Brazil, Chile, Colombia, Mexico, and Peru: contribution to or membership of a pension fund and / or health; Ecuador: contribution or membership of a social insurance system; Venezuela: the right to social benefits (holidays, allowances, bonuses, pension contributions, or other legislated rights.)	ECLAC	2008
INSTITUTIONS			
GOVERNMENT EFFECTIVENESS	Includes bureaucracy performance, transactions cost, and quality of public services	Governance matters VII, Aggregate and individual Governance indicators 2008. The World Bank	2008
CORRUPTION CONTROL	Measures the abuse of public power for private gain, including petty and large-scale corruption.	Governance matters VII, Aggregate and individual Governance indicators 2008. The World Bank	2008
POLITICAL STABILITY	Measures the possibility of threats of violence and changes in government, including terrorism.	Governance matters VII, Aggregate and individual Governance indicators 2008. The World Bank	2008
ECONOMY			
UNEMPLOYMENT RATE	Annual average unemployment rate	ECLAC	2009
ECONOMIC COMPETITIVENESS	Competitiveness Index Variables considered: -Physical infrastructure -Innovation -Technology	World Economic Forum (WEF). Report 2009-2010	2009
MICROFINANCE	Global Microfinance Index Variables Considered: -Microfinance investment climate	Economist Intelligence Unit	2009

TABLE 4. DESCRIPTION AND SOURCES OF THE CONTEXTUAL POVERTY VARIABLES

VARIABLE	DESCRIPTION	SOURCE	YEAR
DEMOCRACY			
CIVIL LIBERTIES	Considers freedom of expression and belief, freedom of association and organizational rights, rule of law, and human rights.	Civil Liberties Index. Freedom House	2010
POLITICAL RIGHTS	Refers to free participation in the political process, including the right to vote freely for different alternatives in elections, compete for public office, join political parties and organizations, and to elect representatives.	Political Rights Index. Freedom House	2010
POLITICAL CULTURE	Political culture reflects the legitimacy, proper functioning, and sustainability of democracy, as well as the willingness of citizens to accept election results in a peaceful manner.	The Economist Intelligence Unit	2010
PUBLIC SAFETY			
HOMICIDE RATE PER 100,000 INHABITANTS	Intentional homicide	United Nations Office on Drugs and Crime	2007
VEHICLE-THEFT RATE PER 100,000 INHABITANTS	Vehicle-theft rate per 100,000 inhabitants	Inter-American Security Observatory. Organization of American States (OEA) 2007-2008	2007-2008
TRUST IN THE POLICE	Those surveyed are asked: "Where you live, do you trust the local police?"	Gallup World Poll 2009	2009
GENDER			
ESTIMATED INCOME RATIO BETWEEN WOMEN AND MEN	Non-agricultural per- hour- worked wage for women compared to non-agricultural per-hour-worked wage for men	Human Development Report, UNDP	2009
RATIO OF WOMEN TO MEN WITH AT LEAST COMPLETED SECONDARY EDUCATION	Percentage of women aged 25 and over with at least completed secondary education compared to the percentage of men aged 25 and over with the same education level	International Indicators on Human Development, UNDP	2010
PARLIAMENTARY SEATS HELD BY WOMEN (% OF TOTAL)	The value is calculated by dividing the number of parliamentary seats held by women by the total number of positions filled.	Human Development Report, UNDP	2009
THE ENVIRONMENT			
PER-CAPITA CO_2 EMISSIONS	Per-capita carbon dioxide emissions. Per-capita metric tons of CO_2	ECLAC, based on United Nations Millennium Development Goals	2004
PROPORTION OF PLANTS AND ANIMALS IN DANGER OF EXTINCTION	Considers the following threat categories: extinct; extinct in the wild; critically endangered; vulnerable; almost threatened; of minor concern.	ECLAC, based on International Union for Conservation of Nature (IUCN)	2008
DEFORESTATION	Annual rate of change in forestry extension.	Global Forest Resources Assessment Programme (FRA)	2000-2005

2.2. SELECTION OF VARIABLES

The variables in each dimension of the Contextual Poverty component were selected in accordance with two criteria:

- Conceptual relevance within each dimension.
- Verification that there is no correlation of variables within and between the dimensions considered.

2.3. CUTOFFS ESTABLISHED FOR CONTEXTUAL POVERTY

The threshold established for the variables of the Contextual Poverty component is the regional average Latin American countries have for each variable. The nations considered for obtaining the average are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela.

TABLE 5. CUTOFFS ESTABLISHED FOR CONTEXTUAL POVERTY

DIMENSION	VARIABLES	THRESHOLD
PUBLIC HEALTH	Life Expectancy	73.46
	Infant Mortality	21.59
	Social Security	40.12
INSTITUTIONS	Government effectiveness	-0.22
	Corruption control	-0.28
	Political stability	-0.34
ECONOMY	Unemployment rate	8.14
	Competitiveness	3.38
	Microfinance	46.78
DEMOCRACY	Civil liberties	2.72
	Political rights	2.50
	Political culture	5.14
PUBLIC SAFETY	Homicide rate	22.31
	Rate of vehicle theft	50.81
	Trust in the police	42.28
GENDER	Income ratio between the sexes	0.51
	Ratio of women to men with completed secondary education	0.95
	Women in parliament	19.67
ENVIRONMENT	Per-capita CO_2 emissions	2.06
	Plants and animals in danger of extinction	0.79
	Deforestation	-0.61

2.4. WEIGHTS

In the case of Contextual Poverty, there is no reference to indicate the weight or importance of each dimension of wellbeing. However, there are some multidimensional indexes in the international arena that can provide guidance regarding the weight to be assigned to each dimension. Among these, the Legatum Institute, considers a broad set of variables to measure prosperity in 104 countries throughout the world and serves as a guide for assigning the Contextual Poverty weights of the Ethos Poverty Index. Also, the *Latinobarómetro* and World Value Surveys were used to determine the relative importance that people attach to each dimension.

Just as in the case of Household Poverty, the sum of the weights equals the number of dimensions (variables) $\sum_{j=1}^{d} w_j = d$, in the case of the Contextual Poverty $\sum_{j=1}^{d} w_j = 7$.

TABLE 6. CONTEXTUAL POVERTY WEIGHTS

DIMENSION	WEIGHT
PUBLIC HEALTH	1.5
INSTITUTIONS	1.5
ECONOMY	1.0
DEMOCRACY	1.0
PUBLIC SAFETY	1.0
GENDER	0.5
ENVIRONMENT	0.5
TOTAL	**7**

10 Bibliography

- Alkire, S. & Santos, M.A. (2010). "Acute Multidimensional Poverty: A new index for developing countries." OPHI, *Working paper, 38.* Oxford Poverty and Human Development Initiative, Oxford, United Kingdom.
- _____ & Foster, J. E. (2007). "Counting and Multidimensional Poverty Measurement." OPHI, *Working Paper, 7.* Oxford Poverty and Human Development Initiative, Oxford, United Kingdom.
- _____ (2002). Dimensions of Human Development. *World Development. 30(2).*
- Anderson G. (2005). Statistical Tests for Multidimensional Poverty Analysis. Ponencia presentada en el seminario *The Many Dimensions of Poverty.* Centre for Poverty Analysis. Brasilia.
- Atkinson, A. & Bourguignon, F. (1982). "The Comparison of Multidimensional Distribution of Economic Status." *The Review of Economic Studies*, 49. 183-201.
- Battiston, D. & Cruces, G. & López Calva, L. & Lugo, M. & Santos, M. (2009). "Income and Beyond: Multidimensional Poverty in six Latin American countries." OPHI, *Working Papers, 17.* Oxford Poverty and Human Development Initiative, Oxford, United Kingdom.
- Bibi, S. (2005). Measuring Poverty in a Multidimensional Perspective: A Review of Literature. *Cahiers de recherche PMMA.*
- Bourguignon, F., & Chakravarty, S. (2003). "The measurement of multidimensional poverty." *Journal of Economic Inequality,* 1 (1), 25-49.
- _____(2002). "Multi-dimensional poverty orderings." *Delta. Working Paper.*
- _____(1998). "The measurement of multidimensional poverty." *Delta working paper.*
- CONEVAL. Consejo Nacional de Evaluación de la Política de Desarrollo Social. (2010). "Metodología para la medición multidimensional de pobreza en México." Retrived from www.coneval.gob.mx.
- Deepa, N., Chambers, R., Shah, M. & Petesch, P. (2000). *Voices of the Poor: Crying Out for Change.* New York: Oxford University Press.
- Dewilde, C. (2004). "The Multidimensional Measurement of Poverty in Belgium and Britain: A Categorical Approach." *Social Indicators Research,* 68(3), 331-69.
- Deutsch, J. & Jacques, S. (2005). "Measuring Multidimensional Poverty: An Empirical Comparison of Various Approaches." *Review of Income and Wealth,* 51(1), 145-174.
- ECLAC (Economic Commission for Latin America and the Caribbean), Arriagada, I. (2003). Dimensiones de pobreza y Politicas Sociales desde una perspective de Género. Santiago de Chile, 1, 12pp.
- _____Feres, J. C. & Mancero, X. (2001 b). *"Enfoques para la medición de la pobreza. Breve revisión de la literatura."* "División de estadística y proyecciones" of ECLAC. Santiago de Chile.
- _____Feres, J. C. & Mancero, X. (2001). *"El método de las necesidades básicas insatisfechas (NBI) y sus aplicaciones a América Latina."* Series Estudios Estadísticos y Prospectivos. ECLAC. Santiago de Chile.
- _____(2009). Panorama social de América Latina. Santiago de Chile.
- _____(2008). Panorama social de América Latina. Santiago de Chile.
- Encuesta de Calidad de Vida de los Hogares (CASEN) 2006. Ministerio de Planificación y Cooperación (MIDEPLAN) de Chile y el Departamento de Economía de la Universidad de Chile.
- Encuesta Condiciones de Vida 2006. Instituto Nacional de Estadísticas y Censos (INEC). Ecuador. Available at www.inec.gov.ec.
- Encuesta de Hogares de Bolivia 2005. Instituto Nacional de Estadística de Bolivia. Available at www.ine.gov.bo.
- Encuesta de Hogares por Muestreo 2005. Oficina Central de estadística e Informática (OCEI). Venezuela.
- Encuesta Latinobarómetro 2005. Available at http://www.latinobarometro.org/latino/latinobarometro.jsp.
- Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) 2008. Instituto Nacional de Estadística y Geografía (INEGI) México. Available at www.inegi.org.mx.
- Encuesta Nacional de Hogares. Condiciones de Vida y Pobreza 2008. Instituto Nacional de Estadística e Informática (INEI) Perú. Available at www.inei.gob.pe.
- FAO. Food and Agriculture Organization of the United Nations. Global Forest Resources Assessment Programme (FRA). www.fao.org.
- Foster, J. E., Greer, J., & Thorbecke, E. (2008). "Foster-Greer-Thorbecke (FGT) poverty measures: Twenty five years later." *Journal of Economic Inequality.*
- _____(1984). "A class of decomposable poverty indices." *Econometrica.* 52 (3), 761-6.
- Freedom House (2010). *Freedom in the World 2010.* January, 2010. www.freedomhouse.org.
- Fundación Ethos (2010). "Hacia una nueva medición de pobreza para América Latina: propuesta conceptual." México.
- Gallup World Poll. (2010). https://worldview.gallup.com
- Gran Encuesta Integrada de Hogares 2008 Colombia. Departamento Administrativo Nacional de Estadística (DANE).
- López-Calva, L. & Ortiz-Juárez, E. (2009). "Medición multidimensional de la pobreza en México: significancia estadística en la inclusión de dimensiones no monetarias." *Estudios Económicos,* Special Issue: 3-33.
- _____& Rodríguez-Chamussy, L. (2005). "Muchos rostros, un solo espejo: restricciones para la medición multidimensional de la pobreza en México." En Székely, M. (ed.), *Números que Mueven al Mundo: La Medición de la Pobreza en México,* México: Miguel Ángel Porrúa.
- Organization of American States Inter-American Security Observatory. (2010) http://www.oas.org/dsp/espanol/-2010cpo_observatorio_estadística.asp.
- Pesquisa Nacional por Amostra de Domicilios (PNAD) 2007. Instituto Brasileiro de Geografía e Estatística. Available at www.ibge.gov.br
- Ravaltlon, M. (1996). "Issues in Measuring and Modeling Poverty". *Economic Journal. 106(438).* 1328-1343.
- Sen A. K. (2004). " Capabilities, Lists, and Public Reason: Counting the Conversation." Feminist Economics, 10 (3).
- _____ (1999). *Development as Freedom.* Oxford: Oxford University Press.
- _____ (1987). " The Standard of Living." G Hawthorn. Cambridge: Cambridge University Press, 1-38.
- _____ (1985). "Well-Being Agency and Freedom: The Dewey Lectures 1984." *Journal of Philosophy, 82(4), 169-221.*
- _____ (1979). Equality of What? The Tanner Lecture on Human Values. Delivered at Stanford University.
- Statistics at ECLAC. CEPAL-CEPALSTAT. http://websie.eclac.cl/infest/ajac/cepalstat.asp?carpeta=estadisticals.
- Székely, M. 2003. "Lo que dicen los pobres." *Cuadernos de Desarrollo Humano, 13.* Secretaría de Desarrollo Social, México.
- The Economist. (2010). The Economist Intelligence Unit. *Index of Democracy.* www.economist.com.
- ___. (2009). The Economist Intelligence Unit. *Global Microscope on the Microfinance Business Environment.* www.iadb.org/mif/microscope.
- The 2009 Legatum Prosperity Index. Complete Report. Obtenido de http://www.prosperity.com/report.aspx.
- The Legatum Prosperity Index. Technical Appendix. Obtenido de http://www.prosperity.com/downloads/2009LegatumAppendix.pdf.
- Transparency International (2006). http://transparency.org.
- Tsui, K. 2002. "Multidimensional Poverty Indices." *Social Choice and Welfare*, 19 (1), 69-93.
- UNDP. United Nations Development Program (2006). Álvarez, A. "El estado de la seguridad en América Latina. Una aproximación a la evaluación situacional e institucional de la seguridad ciudadana en la región".
- ___(2009). Report on Human Development, New York. UNDP
- ___(2010). Report on Human Development, New York. UNDP
- ___(1997). Governance and Sustainable Human Development. UNDP policy.
- United Nations Office on Drugs and Crime. (2010). Crime statistics, http://www.unodc.org/unodc/en/data-and-analysis/index-html?ref=menudise
- World Bank (2009). Kaufmann, D. & Kraay, A. "Governance Matters VII. Aggregate and individual governance indicators. 1996-2008." *Policy Research Working Paper 4978.*
- World Economic Forum (2009). Global Competitiveness Report.
- World Values Survey 1981–2008. www.worldvaluessurvey.org.
- Zavaleta, D. (2007). "The ability to go out and about without shame. A proposal for internationally comparable indicators of shame and humiliation". Oxford Initiative on Poverty and Human Development.

ethos fundación

www.ethos.org.mx

info@ethos.org.mx

ETHOS POVERTY INDEX 2011

ethos fundación

ISBN: 978-607-95125-5-2

www.ethos.org.mx