# System of identification for social assistance beneficiaries (SISBEN) in Colombia

The economic and financial crisis of 2008-2009 with consequences among the poor displayed how well social protection systems face coverage restrictions. That was one of the reasons to conceive in the context of the Global Jobs Pact organized by ILO in 2009 a basic social protection floor which implies assigning monetary transfers and to provide key services to the poorest and vulnerable<sup>1</sup>.

Colombia's subsidized health regime adopted in 1993 guarantees a basic social service component using SISBEN<sup>2</sup>. In 2008 the concept of social protection floor appears clearly when mentioning social promotion as part of the social protection system. The National Development Plan of 2006-2010 refers social promotion as "State's actions in the form of monetary transfers or in kind subsidies aimed to help deprived and vulnerable"<sup>3</sup>.

This article is produced in the context of a workshop on *Integrating Social Policies and the Delivery of Social Protection Floors (SPF)*, organized by ILO that took place in Siem Reap (Camboya) from May 29 to 31st. Its objective is to identify how a targeting instrument like SISBEN can introduce transparency and traceability to information systems.

### 1. A context to place social protection in Colombia

Colombia has 47.6 inhabitants in 2012 three of four living in urban areas and is the second country more crowded in South America. Compared to other Latin-American countries like Brazil or Chile the age structure of Colombians does not express a strong tendency to aging. In 2012 the demographic dependency ratio<sup>4</sup> was 51.5% in Colombia versus 46.8% in Brazil and 45.2% in Chile<sup>5</sup>.

In 2010 two economic sectors represented one third of Colombia's GDP: finance, insurance, real estate and other services to enterprises (19.5%); and social, community and personal services (15.5%). For a long time, the total product has been associated with a GDP per person lower than the Latin-American average. In 2005 Colombia had a GDP per person of US\$ 3,393.8 that rose to US\$ 4.115,8 in 2011 and meant a reduction of the gap respect to the mean of the Region (GDP per capita of US\$ 4,727 in 2005 and US\$ 5,741 in 2011)<sup>6</sup>.

A look to income poverty levels will give an idea of welfare conditions in the country. In 2012, the income perceived by 32.7% of its population was not enough to cover a national basket of food and basic services. During that year, poverty incidence was higher to that estimated for countries

OIT, OPS/OMS, coordinadores, 2010. Iniciativa del piso de protección social. Piso de protección social en Argentina.

<sup>&</sup>lt;sup>2</sup> SISBEN is the system of Identification of the social programs beneficiaries.

<sup>&</sup>lt;sup>3</sup> National Development Plan 2006-2010 Estado Comunitario Desarrollo para todos, Vol. I, pp. 141-142.

<sup>&</sup>lt;sup>4</sup> A measure that shows the number of dependents (aged 0-14 and over 65) to total population (aged 15-64).

<sup>&</sup>lt;sup>5</sup> UNDP, 2013, Human Development Report 2013", pp. 195.

<sup>&</sup>lt;sup>6</sup> DNP, "Producción y demanda agregada, Producto Interno Bruto por Ramas de Actividad Económica, precios de 2005". Table 2.1.3, updated at 09/04/2013 Webpage search 25/04/2013.

 $<sup>\</sup>frac{https://www.dnp.gov.co/EstudiosEconomicos/Indicadoresdecoyunturaecon\%C3\%B3mica/ICEmensualCUADROSYGR\%C3\%81FICOS.aspx$ 

like Uruguay (6.5%), Brazil (20.9%) and Chile (20.2%). In the same way, reducing income inequality is a huge challenge. A Gini coefficient of 0.539 in 2012 ranks Colombia as sixth among the more unequal countries in the Region<sup>7</sup>.

During the last decade Colombia has made significant improvements, but there is a need for actions aimed to induce a reduction of the poverty gap between urban and rural areas and to enhance income distribution. Precisely in response to this situation when the social protection system was reformed at the beginning of the nineties, The System of Identification of the Social Programs Beneficiaries (SISBEN) was adopted to identify the poorest whose access to health services had to be subsidized.

# SISBEN's conception and its justification

The social security reforms approved in Colombia and in other Latin-American countries during the nineties shifted subsidy assignment from supply to demand<sup>8</sup>. It was in this context where SISBEN was conceived as a suitable instrument to target social programs. SISBEN began its management and operation in January 1995 and two years later a rule stated by the National Planning Department (NPD) enforced all municipalities to adopt it<sup>9</sup>. Before adopting SISBEN, subsidies in the health sector were assigned using targeting mechanisms such as census lists for municipalities with high proportion of people suffering unsatisfied basic needs and a socioeconomic classification of household that is used to charge public utilities<sup>10</sup>.

As a targeting mechanism used by social programs, SISBEN answers some arguments placed in the Political Constitution of 1991 (PC) pointing out that national budget must give priority to social spending and particularly that assigned to children, poor and vulnerable. Access to social protection is a constitutional right: "Everyone is born free and equal before the law; all will deserve the same protection and treatment from authorities and are entitled to all the rights, freedoms and opportunities (...). The State will promote the conditions to make the equality something real and effective and will adopt measures to help people that are discriminated and segregated (...)"<sup>11</sup>. Different laws, norms and rules have been approved in order to carry out what the PC has set, all of them related to SISBEN, being the most important: Law 60 of 1993 and some social CONPES<sup>12</sup>.

Law 60 of 1993 defines the targeting of social services as "a process that guarantees that social spending is assigned to those groups more vulnerable and poor" <sup>13</sup>. That law has agreed a three years period in which the National Council of Economic and Social Policy should establish "the

<sup>&</sup>lt;sup>7</sup> The Gini coefficient ranks people according to income, showing the share of it that goes to the poorest. It takes values in a range that goes from zero (lower income inequity) to one (maximum income inequity).

<sup>&</sup>lt;sup>8</sup> Law 100 of 1993 represented the main reform in Colombia.

<sup>&</sup>lt;sup>9</sup> Agreement 77 of November 20, 1997.

<sup>&</sup>lt;sup>10</sup> Fresneda, O.2003 "El sistema de selección de beneficiarios y el régimen subsidiado de salud en Colombia". Journal of Comercio Exterior, Vol. 53 No. 6, June.

<sup>&</sup>lt;sup>11</sup> Political Constitution, Article 13.

<sup>&</sup>lt;sup>12</sup> Social CONPES is a document approved by the National Council of Economic and Social Policy.

<sup>&</sup>lt;sup>13</sup> Article 30.

criterions to define identify and select social programs' beneficiaries and the instruments to be used by regional entities to allocate social spending".

Social CONPES 022 of January 1994 defined the instruments to target all kind of spending and particularly the social spending financed by transfers inter governments. As a result, a norm adopted by NPD specifies that the beneficiaries of health's subsidized regime must be identified using the socioeconomic classification card of households, families and individuals (The System of Identification of Social Programs' Beneficiaries (SISBEN). In September 1997 Social CONPES 040 confirmed the criterions in CONPES 022, strengthening SISBEN as a leading instrument and determining that it should be used by all social programs with demand subsidies.

From a conceptual point of view the first version of SISBEN (SISBEN-I) was designed as a proxy o resources and income<sup>14</sup>. The second and third version (SISBEN-II and SISBEN-III) were conceived as standard of living indicators supported on the functioning's and capabilities approach of Amartya Sen which defines poverty as a lack of capacity to get basic functioning that constitute life.

Principal Component Analysis was the statistical method used to estimate the indicator in its first and second version, applying a process known as "Optimal quantification" to transform categorical variables into continuous variables<sup>15</sup>. SISBEN-I and SISBEN-II adopted the same methodology but whilst the first calculated weights to each dimension the second estimated the index directly using individual indicators. SISBEN-I was made up of four factors or dimensions each one with variables related to housing, utilities, human capital and social security, and demographic structure and income. SISBEN-II preserved the same factors of SISBEN-I but adding the socioeconomic classification of households as a dimension related to dwelling location.

The design of SISBEN-III stands on the concept of *fuzzy sets* defined as *generalizations of classical* sets with classes within which the transition from membership to non-membership takes place gradually rather than suddenly<sup>16</sup>. SISBEN-III deals with 24 variables organized in four dimensions: health, education, housing and vulnerability, with the last one taking two perspectives, individual and contextual<sup>17</sup>.

The three versions of SISBEN create a cardinal index that assigns values between zero (0) and one hundred (100) as a function of the household's quality of life (economic resources when talking about SISBEN-I or living standard when dealing with SISBEN-II and SISBEN-III). The score increases with the household's conditions of living.

<sup>&</sup>lt;sup>14</sup> Carlos E. Vélez, Elkin Castaño y Deutsch Ruthanne, 1999. "Una interpretación económica del sistema de focalización de programas sociales: el caso del SISBEN en Colombia", Coyuntura Social, Num. 21st, FEDESARROLLO, Bogotá, November.

<sup>15</sup> Idem

<sup>&</sup>lt;sup>16</sup> Lelli, Sara, 2001, Factor Analysis vs. Fuzzy Sets Theory: Assessing the Influence of Different Techniques on Sen's Functioning Approach, pp. 6, quoted by DNP, DDS, Grupo de Calidad de Vida. 2008. "Diseño del Índice Sisbén en su tercera versión –Sisbén III-". Executive Summary.

<sup>&</sup>lt;sup>17</sup> DNP, DDS, 2008. "Diseño del Índice SISBEN en su tercera versión –SISBEN III-". Executive Summary.

### SISBEN in the context of national development plans and policies

Being the main individual targeting instrument, SISBEN has been included as part of some strategies aimed to reach social objectives in national and local development plans<sup>18</sup>. The National Development Plan adopted for the period 2006-2010, encouraged the use of SISBEN to increase health security coverage, improve poor people's access to higher education, allocate housing subsidies, assign the conditional monetary transfers for the Program Families in Action, increase employability of young poor and vulnerable<sup>19</sup>, and as a targeting mechanism used by the social safety net program<sup>20</sup>. That national plan also highlights the importance of interoperability among the social protection system's data bases with SISBEN in order to reduce evasion.

The National Development plan 2010-2014, *Prosperity for All*, emphasize the role of SISBEN in the social promotion system. It also mentions as one of its challenges, the introduction of a new technological platform for SISBEN in all the municipalities of the country<sup>21</sup>.

# 2. Describing SISBEN

SISBEN has three components: the index, the socioeconomic survey and the software to estimate the scores. There are two types of survey: sweeping and demand surveys. Sweeping surveys are similar to a census with a house by house visit, mainly to housings in poorest sectors. SISBEN usually has an initial sweeping and then a complementary one. The demand surveys are applied to those households requesting it. All households have the right to demand a survey. People can update their data at any time for example, if they need to correct names and documents of identification, or if they require adding new members and removing some of them.

Programs that use SISBEN receive from NPD an aggregate data base at a national level and when they have established the maximum score to get the benefits and all other targeting criteria, they can proceed to identify their beneficiaries. When SISBEN-III was adopted, at least 8 institutions used the index to target their programs. Table 1 describes what is happening during 2013 if we look at the institutions at the central level that use SISBEN.

Table 1. Programs that use SISBEN, 2013

Institution	Programs that use SISBEN					
Ministry of Health and Social Protection	Subsidized health regime					
Ministry of Labor	Social protection for the elderly (Colombia Mayor)					
	Solidarity Fund for Pension - Subsistence Account					
	Early childhood (Community Welfare Homes, FAMI,					
Instituto Colombiano de Bienestar Familiar	childcare, breakfasts for children)					
	De Cero a siempre (with National Ministry of Education)					
National Ministry of Education	School feeding					
National Ministry of Education	A cooperative fund to support school infrastructure expenses					
Department for Social Prosperity (Accion Social)	Más Familias en Acción					
	Red Unidos (Red Juntos)					

<sup>&</sup>lt;sup>18</sup> In Colombia there are others instruments for targeting individuals like census lists that cover displayed and indigenous people.

<sup>&</sup>lt;sup>19</sup> Programs, "Jóvenes en Acción" and "Jóvenes Rurales".

<sup>&</sup>lt;sup>20</sup> Social Safety Net to overcome extreme poverty.

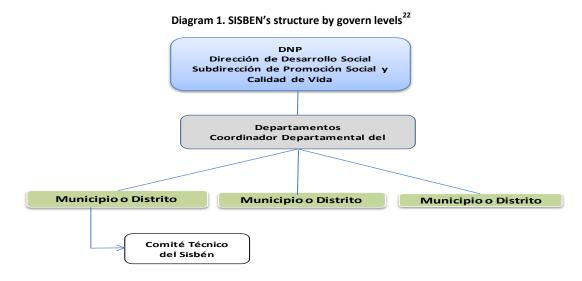
<sup>&</sup>lt;sup>21</sup> That platform is known as *SISBENNET*.

	Jóvenes en Acción				
Colombian Institute for Overseas Studies (ICETEX)	Access with quality to higher education (ACCES credit)				
Ministry of Agriculture	Rural housing				
Willistry of Agriculture	Integrated land and rural opportunities grant				
Ministry of Housing	Family housing allowance				
IVIIIISTI Y OI FIOUSIIIg	.00,000 Free housing program				
Servicio Nacional de Aprendizaje (SENA)	Jóvenes Rurales Program				
Registraduría Nacional del Estado Civil	Exemption of payment for identity document				
Fuerzas Militares-Ejército Nacional	Exemption of payment for Libreta Militar				
Source: Updating Annex 1 in Conpes Social Document 11	7, 2010.				

### **Institutional arrangements to operate SISBEN**

SISEN-I was designed by Social Mission, a joint project of NPD, Colombian Agency for International Cooperation, and UNDP. Each municipality decided when and how implementing SISBEN and all along the updating process they were trained and was technical supported from Social Mission. SISBEN-II was designed by NPD which was also responsible of local information assessment, data base management and aggregation at a national level. With respect to their municipalities, each department helped the operation of the system, provided technical assistant, consolidated data and was in charge of supervising the management of SISBEN-II. At the same time, in its own territory each municipality implanted, operated and managed SISBEN-II. Municipalities, in some way controlled and supervised SISBEN-II's operation. Finally, SISBEN-III was designed by NPD supported by Los Andes University.

In terms of administrative arrangements, the three government levels are involved with the operation of SISBEN: national, departmental and municipal. At the central level, it is the Social Development Direction in NPD that designs the index and is responsible for the data base management. At departmental level the management of SISBEN falls on a coordinator who provides technical assistance to the municipalities. Diagram 1 shows the structure of SISBEN.



<sup>22</sup> NPD. Group of Social Promotion and Quality of life, 2011. "Guía para el uso del Sisbén III Versión 2.0", pp. 9.

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NPD provides with guidelines to introduce the index and to manage and operate SISBEN to the local office in charge. Usually, that office has six positions: the manager of SISBEN, two persons who offer service and support to the beneficiaries, interviewers for demand surveys (two people), people in charge of storing and typing the surveys and a person responsible for the coordination of each one of those process. The Technical Committee at the municipality advices and manages all aspects related to SISBEN. The following are the members of that Committee: municipal mayor or the person he/she appoints, secretaries of social sector (education, health), secretaries of planning and finance, and the manager of SISBEN at the municipality<sup>23</sup>.

Updated data from each municipality<sup>24</sup> is sent via web to NPD to generate a base with data at a national level, six times per year<sup>25</sup>. SISBEN-III introduces a technological platform known as SISBEN-NET that uses a network concept. SISBEN-NET aims to enhance agility, improve information exchange among the government levels, reduces time of data processing and allows the beneficiaries to get efficient information at the right time. The process of updating and consolidation of data implies to apply controls and filters to ensure quality, reduce loss and duplicities of data and change of variables that affect the score<sup>26</sup>.

SISBEN does not provide benefits as such but it is used to identify social programs' beneficiaries. Hence targeted programs have varied as a function of each version of SISBEN. The first two versions used the score to define six levels, where the poor and vulnerable were those classified at levels 1 and 2. With SISBEN-III each program has the right to decide by itself the maximum score to become a beneficiary.

SISBÉN-I and II had a score distributed in six levels, letting level 1 and 2 for poor and vulnerable. To define the poorest and most vulnerable population SISBEN-I used two indicators: basic needs no covered and indigence line<sup>27</sup>. Cut-off points in SISBEN-II are based on the statistical method of K-Means with a result of six levels in urban area and 4 in rural<sup>28</sup>. The first two versions were estimated for urban and rural areas while SISBEN-III has three geographical areas: 14 main cities, urban areas in other municipalities and scattered rural settlements.

### Managing the system of information

SISBEN has a decentralized information system. NPD refines database, designs controls to qualify the data and supports the implementation of the instrument. Departments and municipalities generate information and apply the surveys .As a consequence, NPD is responsible for defining the criteria to be included in SISBEN's data base and being suspended temporally or permanently form

<sup>24</sup> There are 1.100 municipalities.

<sup>&</sup>lt;sup>23</sup> Idem.

<sup>&</sup>lt;sup>25</sup> Data updating for SISBEN-I and II was made sending Compact Disks.

<sup>&</sup>lt;sup>26</sup> Cárdenas, Diana, 2006, op cit.

<sup>&</sup>lt;sup>27</sup> Uncovered basic needs is related to five characteristics: living in housings with problems of ceiling, walls and floor; houses without public utilities; overcrowding (three or more people sharing a room); high economic dependence (more than three people depend from a household's head with low education); children not attending to school. A household and its members are considered poor if it has one of those characteristics and miserable if it has more than one. Extreme poverty refers to the lack of income to get food to meet minimal nutritional requirements.

<sup>&</sup>lt;sup>28</sup> Castaño, Elkin, 2002.

it. The municipalities must follow the guidelines set by the national government to introduce, update, manage and operate the base. They should also apply the criteria and the targeting instruments defined by CONPES Social when they generate social investing and adopt correct measures to guarantee poor and vulnerable groups access basic services. Diagram2 describes the managing of SISBEN's information.

Data processing and refining Certified data base Municipalities sent Quality controls NPD to using external data to NDP municipalities, Web publication • NPD databases. departments and public institutions. ata aggregation an further refining Data downloading to municipalities and

Diagram 2. Measures to manage information when operating SISBEN

A web site (<u>www.sisben.gov.co</u>) is the main mechanism of communication and awareness of SISBEN. People are informed through it and learn how SISBEN works, where its offices around the country are, and get answers to the questions they have. It is clear that it is not enough and that other mechanisms of awareness and community's empowerment must be induced. Those mechanisms include actions in the municipalities and to the set of social programs developed by the state.

### Monitoring and Evaluation of SISBEN's operation

By Law 715 of 2001 Social CONPES is in charge of defining every three years, the criteria to establish, identify and select the beneficiaries of social programs and to decide their procedure. In some way, this period determines the modifications introduced to SISBEN which are preceded by an assessment of its design and operation. In that context, we can talk about two assessments of SISBEN: one for the first version that was published in 2003 and another of SISBEN-II which is part of the technical document that supports the design of SISBEN-III.

The assessment of SISBEN-I dealt with topics related to quality and efficacy of the index and efficiency of the process. Quality and efficacy was reviewed in two ways. First of all variables' manipulation and their capacity of discrimination was checked, identifying the variables that although being important were missing from the index and those that were not updated. Secondly, it was reviewed the capacity of SISBEN to exclude people considered to be potential beneficiaries of subsidies from the group of effective beneficiaries and its capacity to erroneously include others. The error of exclusion of SISBEN-I was estimated in 18.8% of the poor, whilst the

error of inclusion was 30.8%<sup>29</sup>. It is also important to mention that the process of implementing SISBEN-I had problems like: manager's instability, a lack of information among authorities and community, restrictions of resources to update data bases, restrictions of local offices of Registraduría Nacional del Estado Civil to issue identification documents, the SISBEN data base was not checked against other bases to detect manipulation of households' information, and the lack of data base consolidated at a national level.

When assessing SISBEN-II, NPD followed the same methodology applied with SISBEN-I. Errors of inclusion and exclusion for SISBEN-II were 25.4% and 19.3%, respectively. SISBEN-II's assessment included as well an analysis of data manipulation and capacity of discrimination. Data manipulation was supported on a technic adopted by NPD called "analysis of symptomatic variables" used to identify the variables behind the request for a re-interview aimed to modify the score<sup>30</sup>.

Data collection in the form of sweeping's surveys for SISBEN-III finished in 2011 then there is not an assessment of that version yet.

## SISBEN's financing sources and its legal stability

SISBEN's actions are condensed in norms like Law 715 of 2001, Law 1176 of 2007, and Decree 1192 of 2010 that determine the objectives and responsibilities with respect to the instrument of targeting. There are two moments in financing SISBEN: the phase of applying sweeping's surveys and the corresponding to the application of surveys by demand. During the sweeping phase, the national government pays 70% of total expenditures depending on the number of surveys applied and the total costs incurred on the index's design and the system of operation. During the demand's phase the municipalities cover the operation of SISBEN's office, the salary of the manager, the interviewers, services to beneficiaries and the cost of applying the surveys.

The Political Constitution defines the allocation of national government's resources among the municipalities. In order to induce updating and refining of SISBEN's information, this allocation rewards the municipalities that send Information on time to NPD. At the same time, SISBEN's data base is used to distribute the resources of the subsidized health regime.

# 3. Lessons to be learned on "Improving transparency and traceability through management information systems

Lessons that have been learned in terms of transparency and traceability of information systems goes from items related to the design of the index and its role on the social protection system to challenges to increase community participation and empowerment.

<sup>&</sup>lt;sup>29</sup> To estimate the errors of inclusion and exclusion it is assumed that decil 5 of a per capita household's expenditure is the cut of point between poor and non-poor (NPD. UNDP, Social Misión. 2003, "Quién se beneficia del Sisbén? Evaluación Integral.

<sup>&</sup>quot;Symptomatic variables are those that when comparing the data bases of two periods, significant changes are found at different moments and repeatedly and those changes conduce to a modification of the score and level" (DNP, DDS, 2008. "Diseño del Índice Sisbén en su tercera versión –Sisbén III-". Execute Summary, pp. 9).

### Some items to be considered in relation to SISBEN's design

The conceptual bases supported on the capabilities approach provide much of SISBEN's strength. The index measures a household's standard of living and in that sense it is used to target programs that not necessarily aim to complement income or to solve problems of lack of payment capacity. But SISBEN has the challenge to assess its capacity to capture shocks considered transitory like the employment's loss which is taken into account just when there are permanent effects. It is required to capture those cases where there is a loss of both assets and human capital accumulation due to the continuity of the shock. It could also be necessary to establish a complementary mechanism to identify households that have been affected by a shock and avoid it becomes permanent.

The concept of vulnerability at the individual and contextual dimensions must be reviewed because Colombia is a diversified country with important gaps among regions. It must be assessed if for households with identical conditions in terms of health, demographic structure, education and assets, the vulnerability differs with the availability of public services in the area of residence.

The statistical method used to estimate the index is another element to be evaluated. Two methodologies have been used: Principal Component Analysis and fuzzy sets theory both with factors against or in favor. As soon as the conceptual framework would be defined then the method that best fits needs and has lower errors of inclusion and exclusion must be adopted. Discussions around the best option should consider who the people the instrument is able to find are, and if they represent the goal of the public policy of social protection in the country.

There have been some problems adopting cut of points that differ according to the objective of each program. This could respond to the use of levels as a habit or due to the fact that once the score is the same for all household's members then actions must be the same for the group. This argument contrasts with the actual procedure that assumes differences among household's members as a function of a need covered by the program that people have applied for.

A central theme is the operation of the information's system. The model adopted in Colombia has a strength which is the availability of a data base that aggregates information at national level with controls and a process of data refining. Transparency of information's systems on line could increase if automatic filters are implemented and if the government and citizens adopt other mechanisms aimed to verify data.

### SISBEN's role on the social protection system

Colombia has an individual instrument of targeting used by most of social programs. This has implied costs reductions and a potential to develop actions that are transparent and integrated. In spite of the achievements to refine SISBEN's data base checking against administrative records, there is a call to work on interoperability with other governmental data bases.

A pending task is to establish a clear and permanent feedback process between the institutions that assign benefits using SISBEN and NPD. This would increase the potential of SISBEN's data base

in terms of monitoring and evaluation of social programs. To assess social programs, SISBEN as the main individual instrument of targeting has the potential to become the central axis to develop a unique registry of information that lacks the country.

## Aspects related with community's participation and empowerment

It must be discussed if it is possible to inform the interviewed what and how they are ranking, in other words, to publicize the weights. There are arguments in favor and against that procedure. From one side it is known that it could generate perverse incentives. From another side, it is considered that it may induce social control and community empowerment.

There is a lack of scenarios to increase community participation and to guarantee a delivery of information that is correct and at the right time, a kind of information able to induce community's social control that is effective. This requires adopting campaigns to make aware of what SISBEN means and how it works.

### 4. SISBEN's impact as a targeting instrument

We can talk about a two face impact of SISBEN: its effect on income redistribution and its potential to add consistency to operate the system of social protection including the social protection floor.

#### SISBEN and income redistribution

Two indicators are frequently used to measure inequality in the allocation of subsidies and its effect on income distribution: the coefficients of *concentration* and *progressiveness of social expenditure*. The coefficient of concentration is associated with a curve showing a share of subsidy belonged to a p% of the poorest which is known as the curve of expenditure's concentration. This coefficient takes values positive, negative or null in the interval  $(-1, 1)^{31}$ . The coefficient of progressiveness is a measure of the improvements in the final distribution of income plus subsidies and is estimated as the difference between the coefficient of concentration of social expenditure and the coefficient of Gini. The coefficient of progressiveness takes values in the range (-2, 1). If it is zero, the social expenditure has not effect on income distribution, if it is positive the subsidy is worsening income distribution, and when it is negative the effect is improving that distribution. Table 2 shows the latest results (2003).

Table 2. A redistributive effect of social expenditure on basic social services. National level - 2003

	Magnitude of subsidy			Targeting				Redistributive effect		
Sectors	%	% . %	subsidy	% of subsidy by quintil of income		Progressiveness		Net change on Gini		
	GDP .	household income		1	2	Csi	Psi%	Absolute value	%	ERRE
Primary education	1,5	2,0	13,7	36,5	28,0	-0,329	-87,9	-0,016	33,2	2,426
subsidized health regime	0,9	1,2	8,6	40,9	31,5	-0,409	-95,9	-0,009	18,4	2,127

<sup>&</sup>lt;sup>31</sup> Vélez, C. E. 1996. Gasto social y desigualdad. Logros y extravíos. NDP, Social Mision.

Public utilities	0,5	0,7	5,0	14,5	20,7	-0,073	-62,3	-0,004	8,8	1,766
ICBF - Child care (< 7 years										
old)	0,2	0,2	1,5	35,8	27,9	-0,322	-87,1	-0,002	3,6	2,371
Family allowances (CCF)	0,2	0,3	1,9	1,2	13,9	0,346	-20,4	0,000	0,7	0,403
All sectors	10,5	14,0	100,0	17,5	17,6	0,101	-44,9	-0,0409	100,0	1,000

Note: Csi is the coefficients of concentration of social expenditure for sector i; Psi the coefficient of progressiveness of sector i; ERRE is a coefficient of efficacy of expenditure allocation.

Taken from: Lasso, Francisco, 2006. "Incidencia del gasto público social sobre la distribución del ingreso y la reducción de la pobreza". NPD, Misión para el diseño de una estrategia para la reducción de la pobreza y la desigualdad (MERPD).

Sectors that use Sisbén are highlighted with grey in table 2: care of children less than seven years old attending ICBF and beneficiaries of subsidized health regime<sup>32</sup>. In 2012 nearly 52% of Colombians belonged to subsidized health regime.

In 2003, the resources provided through the subsidized health regime amounted to 0.9% of GDP and 1.2% of total household's income for that year. From another perspective, the subsidy allocated to health's sector in 2003 represented 8.6% of the resources provided through all social sectors<sup>33</sup>. Nearly 72% of resources from the subsidized health regime benefited 40% of people with lower income. The coefficients of concentration of expenditure and progressiveness show favorable results when we concentrate on subsidized health. Subsidies to care of children less than seven years old also perform better than the subsidy assigned through CCF<sup>34</sup>.

# SISBEN helps to improve the consistency of social protection's system

Labor, social prevision and social assistance which are the common areas behind social protection have programs that lack articulation and full coverage except for the case of health. As a consequence, and once it is necessary to concentrate on each sector's objectives, social protection does not have an integral information system. It is in this context that SISBEN has worked as a mechanism to target subsidies even those of health sector that represents the main example of the application of a social protection floor in Colombia. SISBEN has taken the place of an integral system of information giving the possibility to check its own data base against information of the social protection's programs.

As a targeting mechanism, SISBEN also means lower cost to the operation of social protection. The costs of SISBEN's implementation appear in relation to field operation (around 83%) and the rest of the costs are captured by general expenditure at the central level that includes technical and

<sup>32</sup> The General System for Health's Social Security was adopted to guarantee the access to health services, with two regimes: contributive regime for those with capacity of payment and subsidized regime for people who lack that capacity.

<sup>33</sup> Education (primary, high school and university education), health (subsidies assigned to demand and offer), retirement benefits, utilities (water, sewage, electricity, gas and phone), care for children less than seven years (ICBF and others public institutions), school feeding programs, household allowances distributed by CCF, training and housing.

<sup>34</sup> Part of the household's subsidy is for children of workers from the formal sector whose income is less than four minimum legal salaries per month. When adding husband and wife's salary the sum must be less than six minimum legal salaries per month.

administrative support. The average cost per survey estimated for SISBEN-II is US\$1.9535 lower than those calculated for similar indexes adopted by countries like Chile (USD\$5 in 1992 and USD\$10 in 2003) or Mexico (USD\$12 in 2000)<sup>36</sup>. The application of a survey for SISBEN-II was estimated to represent around 2% of the subsidized unit of per capitation adopted in the health sector in 2005 and nearly 1% of the annual expenditure made by ICBF to take care of a child that attends a Community Welfare Home<sup>37</sup>. An average cost of US\$3.25 is associated with the implementation of SISBEN-III<sup>38</sup>.

To summarize, SISBEN has strong conceptual bases and a verifiable and well founded statistical technic. It has an administrative system where implementation is decentralized and has a continuous monitoring and evaluation. That system of information must be accessible as far as possible online to all user entities and social policy analysts. The administrative system has improved with the centralization of the data base, but the system of information is still inaccessible for desirable social and academic control.

### 5. Resources and bibliography

- SISBEN's Web site: https://www.sisben.gov.co/
- Conpes Social 117 that adopts SISBEN-II: https://www.dnp.gov.co/Portals/0/archivos/documentos/Subdireccion/Conpes%20Sociales/11 7.pdf
- Assessment of SISBEN-I: http://www.pnud.org.co/sitio.shtml?apc=ffc-9--&x=18711#.UYyHL-**NZiWN** http://www.pnud.org.co/sitio.shtml?apc=f-c-8--&x=18687#.UYvHcONZiWM
- La efectividad de las redes de protección social: El rol de los sistemas integrados de información América social de Latina en seis países http://www.iadb.org/es/publicaciones/detalle,7101.html?id=20662
- Operation of SISBEN in Bogotá: http://portel.bogota.gov.co/portel/libreria/php/frame detalle scv.php?h id=22951

<sup>&</sup>lt;sup>35</sup> Dollars of 2005.

<sup>&</sup>lt;sup>36</sup> NPD, 2007, "Mecanismos de focalización, cuatro estudios de caso". SISD Bulletin No. 32.

<sup>&</sup>lt;sup>38</sup> NDP, 2011, "Mejoramiento del Sistema de Selección de Beneficiarios –Sisbén, Proyecto de Inversión December, 2011, Web NPD, Certified base report, site, May https://www.sisben.gov.co/Informaci%C3%B3n/ReporteBaseCertificadaSisb%C3%A9n.aspx#.UYic1-NZjWM