

## **Poverty Measurements: a Gender Approach**

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## Introduction

In recent years Mexico has established an official poverty measurement based on a methodology that permits periodic comparisons to be made. Such measurements are regularly reported and wide dissemination is given to the methodology used and the information sources consulted to calculate them.

In 2001, the Mexican Ministry of Social Development (SEDESOL) invited some experts and researchers to become members of the Technical Committee on Poverty Measurement (CTMP) in order to develop an official Mexican Government methodology. Based on the Committee work and in the methodology proposed, Sedesol published, in 2002, the first official measurement for the year 2000 which established three poverty concepts: food poverty, capacities poverty and patrimony poverty.<sup>2</sup> Based on this methodology further measurements were published for 2002 and 2004.

In 2004 The General Law on Social Development foresaw the creation of the National Council for Social Development Policy Evaluation (CONEVAL), to be responsible for establishing the Mexican poverty measurement. CONEVAL, using the methodology proposed by CTMP for the three poverty concepts established by SEDESOL, published poverty measurements for 2005 and, recently, also for 2006.

Official poverty measurement is based on establishing lines of poverty by taking as a basis the average price of goods needed to acquire a basic food basket. For the determination of non-food baskets was use an expansion criterion calculated by using Engel's coefficient. These estimates take into account the

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<sup>2</sup> Food poverty takes into account the population without enough income to buy a basic food basket: the poverty of capacities considers the population without enough income to simultaneously satisfy their needs for food, health and education; the poverty of patrimony considers the population without enough income to satisfy food, health, education, shelter, public transport, clothing and footwear needs.

required income to cover the necessities of education, health, shelter, clothing and transport.

The lines of poverty thus established are compared with the per capita income of households to determine their poverty level and, based on these comparisons; a determination is made of an aggregated poverty indicator that expresses the percentage of households below each poverty line.

, The evolution and trend of poverty indicators reveal significant reductions at all levels of poverty during the period 2000-2006. At present, CONEVAL is doing some research and analysis to determine how to modify poverty measurements so that an official measurement may be define, this measurement will include at least the seven indicators established in the General Law on Social Development published in 2004.

On the other hand, there is sufficient international literature concerning poverty and the suggested variables to measure it. The main discussions focus on measuring poverty through income, expenditure or consumption; the capacities approach, or unsatisfied needs; and, in particular, the findings of gender studies on stressing inequalities in the absence of economic resources.

This document's objective is to approach the discussion on gender inequalities in poverty contexts, as well as to present the most representative elements of such discussions as they have been developed in recent years. Chapter I contains a summary of the main results on the discussions about poverty measurements and gender, based on documental analysis of national and international experiences from different approximations,; chapter II includes considerations for a gender approach measurement based on available national data sources in Mexico.

## Chapter I

A number of authors have approach the study of gender differences in situations of poverty focusing on the disproportionate social burdens that these differences place on women (Kabeer, 1994 and 2003; Tortosa, 2001; Salles and Tuirán, 1999; López and Salles, 2007).

The main approximations developed from gender studies arise from concepts of vulnerability, exclusion, inequality and marginalization that make women to suffer hardship (Arriagada, 2003). In general, they centre on highlighting the fact that women assume a much larger share of the private costs, both monetary and non-monetary, that households face in order to achieve the minimum conditions of well-being. These approximations have been developed at great length in conceptual terms but, as far as it's known, they have not been included as a dimension in poverty measurement.

Some discussions have been centred on the fact that the productive and reproductive roles of men and women are translated in relations of feminine subordination, generally motivated by the disadvantages in the access to mechanisms of generation of income and the lack of social valuation of the unpaid domestic and community work that almost all women do. In addition, the fact that women independence and self-sufficiency are limited because they do not own properties or other material resources has been emphasized.

Another relevant theme in gender discussions refers to empowering women as an important factor in balancing the roles of men and women, both in the labour market and in the home (Presser y Sen, 1998). Letting women have access to the intra-household decisions and to a greater participation in the labour market have been stressed as a mean of increasing their economic self-sufficiency and helping them to become less dependent.

A subject widely analyzed is the one of vulnerability faced by women family female leaders. There is evidence that such households are not the poorest

when measured by income; but their vulnerability lies in their lack of autonomy to generate income and the transferences that receive from other households, their composition, the social networks that allow them to function, and the conditions of dependency that these imply, as well as the distribution of household and economic burdens that fall on their youngest members.<sup>3</sup>

Over the past 20 years, research carried out on gender studies has helped to enrich discussions about the concept of poverty. Because there are dimensions of well-being that income alone does not cover and are relevant when it is a question of personal development, particularly for women, many studies have stressed the disadvantages of approaching poverty measurement only from the point of view of income sufficiency (Chant, 2003).

Next, the main conceptual aspects about poverty developed on gender studies are presented:

1. Gender and time use.
  - 1.1. Compatibility between productive and reproductive work
  - 1.2. Caring for people and social networks
  - 1.3. Housing goods and services
2. Intra-household resources distribution.
3. Relations of dependency and subordination.

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<sup>3</sup> In México 23% (5.7 million) households are headed by women. Strategies commonly used for the survival of these nuclear families include making more members, particularly minors, become economically active to increase the household's income, imposing on them a double burden, a greater risk of becoming school dropouts and cutting short their chance to develop; it also makes it more likely that poverty will be handed down from generation to generation because women heads of households are unable to ensure their well-being. Of single-parent families with children under 15 years of age 88% are headed by women.

The ENIGH survey shows that the percentage of households headed by women receiving private transfers from family members, friends or neighbours is almost three times greater in relation to the national average.<sup>3</sup> These transfers contribute almost 20% to the family income and determine the household's levels of well-being and of poverty, although they generally have conditions attached to them.

## **1. Gender and time use**

Productive and reproductive roles in the family and the society determine the time that men and women destine working for the market and doing domestic and community work. This time allocation leads to an unequal distribution of work within and outside the home. Nowadays practically all reproductive and community work it's done by women.

Although the division of tasks between sexes follows a similar pattern for all socioeconomic classes, the disadvantages of the unequal distribution of work between man and women are significantly greater for women facing poverty conditions (Orozco, 2005).

### **1.1. Compatibility between productive and reproductive work**

It is estimated that at the present time women account for 37% of the work force in Mexico. Different studies reveal that, on average, women receive lower wages than men and explain that this is because women must combine their jobs characteristics with their domestic chores (Antonopoulos, 2005; Observatorio Laboral, STPS).<sup>4</sup>

This is explained to some extent because women's participation in the work force is usually restrained to activities that allow them to fulfill the responsibilities that the reproductive work implies, and this often entail that they have to accept part-time jobs with no access to social security benefits, or to work in the informal sector.

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<sup>4</sup> The information given in the National Survey on Household Income and Expenditure (ENIGH) indicates that the monthly wages of men who work are 22% higher than that of women who work; however, when standardized by the number of work hours, the wages are similar.

Women believe that in order to accede to remunerated work they need a job that allows them to take care of their children and also carry out the household's reproductive tasks. According to the survey carried out in 2003 "Lo que dicen los pobres", , one out of every five women in poverty conditions said that in order to have a better way of life it would be essential to get a job that allows them to take care of their children besides to make its work. In contrast, only six out of every one hundred men made the same declaration.

The search for schemes to make the productive and reproductive work compatible and the limited resources hold by an important sector of the population, results in double working days that have negative effects on women's well-being and on their quality life. Situations like this occur more often in the poorest sectors, where women have no access to social security systems and neither count with the necessary means to acquire the goods and services they need to replace their reproductive household work.

Among the population living in poverty, the types of jobs man and woman can get given their abilities and educational level contributes to generate gender inequalities. Usually, they get unstable jobs, with low remuneration and no social benefits. This situation has impacts on the female labour segregation, not only in the work market but also in the domestic and community environment where women, given that they assume most of the private costs of individual and family development, subsidize the lack of access to social security and basic social services.<sup>5</sup>

Considering the division of work between sexes, and that women have to do domestic and community work, the chances for them to increase their capacities and improve their abilities are diminish ; unlike the possibilities of

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<sup>5</sup> Nationally, the present structure of social protection is regressive (Scott, 2004). Most of the resources for social protection go to the better-off population sectors; the lack of such protection in poorer homes makes them establish compensation strategies which, in general, fall upon the female sex (child care, care of invalids and those with incapacities, among others). Only about 10% of households living in poverty have access to social security.

training and experience acquisition that paid work provides , giving individuals additional chances to develop their capacities. This in the course of life contributes to female labour segregation since the access of women to unstable and low paid jobs is related to an historical accumulated deficit of capacities. . (López y Salles, 2007).

## **1.2. Care of persons and social networks**

Women, because of their higher fertility rates, are less active and, since they must deal with household chores and care for people who are vulnerable, those who live in poverty also face the same economic limitations as other members of their households, as well as having domestic and reproductive workloads that are more arduous than those of better-off women in higher social classes,

How work is divided between men and women, and the reproductive work needed to attend to people who are vulnerable, is almost the exclusive responsibility of women; this means that the lack of resources due to poverty measured by insufficient income has a greater negative impact on women because, as they have no access to social protection mechanisms to care for children, older people, invalids or those with incapacities, they must cope with greater burdens as to work load and time spent on household tasks. (Folbre, 2001).

Situations like those described, that must be offset if the extra load placed on women is to be reduced, have negative effects on other members of the household, particularly young girls, and help to reproduce patterns of inequality in the younger generations.

The Survey on Social Capital in the Urban Environment (2006) provides some indications about how social networks in poverty contexts compensate, to a large extent, for the inequalities of economic and social development opportunities in poor sectors of the population.

The daily care of children and sick family members, and the possibility of borrowing money to buy basic goods and services by getting informal loans, are

good examples of situations in which the main burden falls on women and in which social networks play an important role. One out of every two people living in poverty asks for a loan from members of their networks, compared to only one in every three better-off people. Of poor households with minors under 15 years of age, 27% ask for assistance to care for their children, compared to only 13% in better-off households. While caring for sick family members has economic implications for the household, this burden mainly falls on the women in the nuclear family, although neighbours provide some assistance.

Building and maintaining social support networks means that households must give similar assistance to neighbours, friends and, in general, members of their networks, assistance that is mainly provided by women and implies an extra work load.

Community work and women's activities in society, as well as the work they do as part of their shared responsibilities for social programmes, have also come to be seen as being a part of domestic duties (Pedrero, 2005). Although they may be of value to society in so far as they help reproduction, these unpaid activities are not counted as part of the basic needs that make society function.

### **1.3. Housing goods and services**

Availability of public services, quality of housing, and whether households have goods and appliances all have an impact on the time and effort women spend on household chores. Women in households where levels of income are similar, face different situations depending on their demographic conditions and life cycles, their type of housing and environments, as well as on how the domestic work burden is distributed among the members of the household.

According to the information gathered by the National Time Use Survey (ENUT, 2002) and the ENIGH survey for the same year, rural women living in poverty

spend twice as much time on preparing food than women with better incomes. The lack of appliances and water in the dwelling means that up to 10 more hours a week are spent on domestic work, about 11 per cent more than the time spent on reproductive work.

## **2. Distribution of resources in the home**

The discussion about unequal distribution of resources in households is evident in empirical studies carried out in various countries (Chant, 2003). It is relevant to take this into consideration because it complements findings about time use in situations of feminine subordination due to the differences between how resources are assigned and appropriated; these differences are generally favourable to members of households who provide economic support and detrimental to those who do the reproductive work (Kabeer, 2003).

It is not only gender literature that has studied inequalities in how resources are assigned within the household; a number of investigations have been made on this theme and have focussed on the impact this has on the members of households (Deaton, 1997). These affirmations are supported: a) by theses that deal with survival mechanisms where there is a severe shortage of resources and the household member who supplies them plays a fundamental role and where, therefore, more resources are needed if the home is to be sustained, and; b) by research on vulnerable population groups where there are fewer investments because of the roles such groups play in society.

Given the division of market and domestic labour between men and women, the distribution of resources within the home is a key theme when using the gender approach to measure poverty; also important is the question of what resources are available to members of the household, particularly the women, who do not receive any income, even in homes where the per capita income is above the poverty line and who, therefore, may be living in poverty as a result of an

unequal distribution of resources within the home. The main limitation of this approach is the lack of data sources to measure how resources are distributed within the home.

The nature of the productive and reproductive roles of men and women, where the men are more likely to be the economic providers, makes the women more vulnerable because of the unequal distribution of resources.

The central concept of the distribution of resources within the home rests on suppositions of solidarity and selflessness implied by poverty measurements based on per capita income. The main thesis centres on factors such as building masculine identities so that economic resources are diverted from the rest of the household to the wage-earning males. Situations like this result in an unequal distribution of household resources and often have a much greater negative impact on women, whose selflessness makes them pass resources to even more vulnerable household members, such as children and the elderly.<sup>6</sup>

### **3. Dependency and subordination relations**

Since women have fewer possibilities of doing productive work and earning an income they become dependent, not only economically but in their interpersonal relations, because of how resources are earned and distributed within the household. Women's levels of independence and empowerment play a fundamental role in exchanges within households. When men and women share both domestic and market work the latter have more power to make personal and household decisions. (Presser y Sen, 1998).

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<sup>6</sup> A specific line in this research centres on the impacts caused by addictions among the male members of households and the impact they have both on the level and distribution of income within the home. In Mexico this line of work is approached taking into account that addictions are much greater among men. The most recent figures from the National Council against Addictions reveal that close to 16% of men are heavy drinkers in comparison with 2.5% of women.

How economic resources are managed and controlled also has other impacts on exchanges within the home. As they are mainly provided by the men, they can lead to conditioning mechanisms known as economic violence against women and in conflicts that result in psychological, physical and sexual violence.

To summarise, the division of paid and domestic work between men and women leads to inequalities that produce situations of subordination with negative effects on women and making it difficult to include them in poverty measurements based on income. Such inequalities are associated with: women's economic dependence on men; their lack of opportunities to learn capacities that would permit them to get medium- and long-term jobs instead of doing domestic work; lack of access to the social protection mechanisms only available to wage earners; whether services and appliances are available in households, and the surroundings that effect the size and intensity of domestic work.

The division of labour, in turn, influences how resources are distributed within the household. Conceptual elements to be considered in measuring available household income refer to suppositions of solidarity and selflessness of members who receive the income towards the other members of the household; implications about women's material well-being because of the unequal distribution of resources; women's economic dependence on men and relations of subordination or conditioning in sharing economic resources; implications for women's well-being caused by tensions and conflicts; empowerment and negotiating power of women within the nuclear family.

## Chapter II

The previous chapter summarizes the central aspects of the discussions on the gender approach to poverty measurement.

In some cases the arguments centre on complex subjective psychological, cultural or identity aspects with respect to gender and empowerment of women. Most of the studies document theoretical or qualitative factors based on research that was not designed to be statistically representative.

In other cases measurement difficulties refer to the limited disaggregation of statistical information and the need for new instruments to uncover gender inequalities. For some of the themes discussed the information available comes from data bases not specifically designed to tackle the challenge of measuring poverty with a gender approach but, however, could be used in the short term to obtain more sensitive measurements. The main problem is that the technical aspects developed have not been included in any one measuring instrument.

In this chapter a short summary is given of commonly used poverty measurement methodologies. The first section deals with their advantages and limitations from the point of view of gender studies. The second section explores how these discussions might be included in present poverty measurements by taking as a reference the conceptual framework developed for gender studies. The third section refers to the challenges faced in constructing a new multidimensional measurement.

## **1. Poverty measurement limitations**

The principal criticisms of gender studies are about the three types of approximations used to measure poverty: the lines of poverty approach; the capacities approach; and the participatory assessment approach.

One of the discussions most often put forward, and of most relevance because it is more generally used, is the criticism of the lines of poverty approach and how the amount of income available in households is calculated. This criticism is of particular importance in the case of Mexico because it refers to the official methodology now used to measure poverty.

The principal discussions refer to the goods and basic necessities that should be included in the baskets that define the value of lines of poverty, and how pertinent it is to use equivalence scales compared to the use of per capita and individual incomes.

The fundamental criticism of the lines of poverty approach is that it does not consider well-being aspects associated with inequalities of gender other than those of income. Equally important is that the data sources used do not consider access to resources at individual level but rather at household level, or that they use per capita measurements on the supposition that there is equal distribution of resources and work loads in households.

Similarly, there are various additional dimensions to be considered concerning the capacities and participatory methods approaches. According to these approaches, one of the key points in discussing a gender approach to measurement is the evidence that women, because of cooperative conflict within households, find themselves in a situation of frank disadvantage compared to men (Amartya Sen 1987b; 1990). Discussions begin by considering how the lack and unequal distribution of resources have

repercussions on social and gender inequalities, among the principal of which are indicators of educational achievement, access to health and nutrition, participation in market and domestic work, morbidity and mortality, empowerment and decision making.

With this in view, the following section deals with the process of constructing poverty measurement and considers the relevant aspects of the different stages of the gender approach.

## **2. The process of constructing poverty measurement and the inclusion of gender variables**

In Mexico official poverty measurement, at its most extreme level, is based on having enough income per capita to meet food needs and, at other and more moderate levels of poverty, to meet such needs as education, health, shelter, clothing, footwear and transport. Under each of these headings the baskets of goods consider the average amount needed to buy the goods or satisfy the needs.

To put it simply, there are three stages in the process of constructing a poverty measurement: the conceptual definition of what is meant by poverty; identifying the indicators to make an approximation of the concept; and establishing a standard to measure them.<sup>7</sup>

For measurements based on lines of poverty, the concept defines the goods in the basic basket, the indicator used is the income, and the standard is the line

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<sup>7</sup> Another possibility is to use a relative poverty criterion where no a priori standard is established but where, by using a defined concept, indicators that express it are chosen and, by using multivariate statistical methods, an index can be constructed that summarizes the features of the population in a single variable that incorporates multiple dimensions. The condition of poverty may be established according to the distribution of the index by means of normative criteria or statistical methods of variance optimization. Developing this alternative requires broader conceptual and technical discussions that are beyond the scope of this document but that should certainly be considered to rectify, as far as possible by including additional dimensions, the limitations of present income-based measurement approaches.

of poverty defined by the cost of the basket of goods to which the income is compared to determine the poverty condition.

By using the lines of poverty and income methodology any good or service whose monetary value can be estimated under a predefined theoretical framework may be included.<sup>8</sup> Some considerations are set out below about the goods included in the baskets and income construction using gender concepts. Because they are based only on statistical information available at the data sources now used to measure poverty, these considerations are not exhaustive.<sup>9</sup>

## **2.1. Definition of basic basket goods**

In Mexico lines of poverty take account of the resources required to meet the needs for food, health, education, shelter, public transport, clothing and footwear. These resources are calculated by estimating average costs and using them to define lines of poverty per capita that are not disaggregated for men and women but are the same for the whole population.

There are, however, specific basic needs for women and for men. This section does not seek to establish what these needs are, but simply to mention some that can be measured in order to prompt a broader discussion.

Some of these needs refer to biological gender characteristics associated with the beginning, development and conclusion of the reproductive stage;

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<sup>8</sup> The estimate is based on simple average market costs of the goods in baskets used to measure poverty. In Mexico this means goods to satisfy the need for food, health, education, shelter, public transport, clothing and footwear. The cost of other goods not sold in the market may be estimated with more complex approximations, one example being estimating the market value of the time spent on domestic work using Heckman regression models. (Orozco, 2005); in the same way approximations of other indicators may be made by using similar methodologies: free time or the value of social networks. Evidently, subjective values cannot be measured that relate to such intangibles as happiness, emotions or others to which Folbre, 2001, makes reference.

<sup>9</sup> In a later version of this document it is hoped to identify and suggest how to construct additional sources of information needed for a more comprehensive approximation.

menarche, birth control and menopause. Each of these concepts implies satisfying needs exclusive to women: acquiring intimate hygiene, menstrual cycle and birth control products as well as those needed to interrupt pregnancies plus, for example, medicines and inputs to compensate for biological imbalances caused by menopause. These are considered as basic needs because, just like food, they are indispensable to ensure women's physical and emotional well-being.

Some of the concepts mentioned are included in Engel's coefficient calculation used to expand non-food lines of poverty within the concept of health costs, but others are specific to the personal care categories and are not considered when calculating lines of poverty for Mexico.

Based on the argument that these are indispensable needs, it is possible to open the discussion about including them not only in non-food lines but in a minimum basket covered by headings other than food.

Another aspect to discuss is that when using lines of poverty that make no distinction between the sexes, some of the concepts referred to in earlier paragraphs are included to calculate expansion coefficients to non-food lines for the population in general. However, this could lead to underestimating feminine poverty by the use of a single average for both sexes.

## **2.2. Income construction**

The income calculation used for official poverty measurement includes the categories of monetary and non-monetary income, and household presents received and given. These categories are added at household level and, to compare them with lines of poverty, a per capita calculation is made based on the number of individuals in the household.

Some of the categories are calculated at an individual level and others at a household level. The limitations that gender studies refer to, and that suggest the need to count men's and women's incomes individually, may be partially corrected by using existing information about levels of independence in producing income, although not when it comes to quantifying how income from wage-earning males is transferred to women in the household.

However, it is not clear whether concerns about inequality in distributing resources within the household could only be solved by the disaggregation of incomes at an individual level; this is because the same arguments used about selflessness and solidarity to maintain inequality in income distribution could be applied to the use of resources that the women themselves produce and pass to other more vulnerable members of the household, or to their partners in the absence of other resources.

Discovering inequalities in distributing resources within households is not a theme concerned only with disaggregation of income or with individual spending; it also concerns each individual's consumption. This is a complicated and costly variable to measure and the closest approximation is usually obtained by using data on costs; however, for Mexico even this is only available at the household level. Discussion in this respect must be broadened to build better information sources that allow a closer approximation to be made of the problem.

The best quantification of personal consumption has been made by the 24 hour reminders used about food consumption in research on nutrition.

Some authors have suggested that, as well as calculations on per capita income, equivalence scales be used. The main aspect to which attention must be paid is that, in general, these scales are based on standards of caloric food needs and, as women's organisms have lower caloric food needs than men's,

this might lead to criteria being established that underestimate even more the consumption needs of women. The factors presented for discussion in the previous section about considering women's other indispensable or basic needs should be included in the definition of equivalence scales.

### **3. Considerations about the General Law on Social Development (LGDS) indicators**

In Mexico the official measurement is being adjusted and, in the coming months, since the General Law on Social Development requires that the official measurement developed by CONEVAL contain data on at least seven of the indicators mentioned below, a new methodology must be established:

- I. Current per capita income;
- II. Lack of education in average household;
- III. Access to health services;
- IV. Access to social security;
- V. Housing quality and space;
- VI. Access to basic housing services;
- VII.** Access to food, and
- VIII.** Degree of social cohesion.

Taking these dimensions into account, by broadening the concept about what will be considered when measuring poverty it will be possible to include some of the aspects emphasized from the gender approach but, because of already mentioned limitations, that cannot be uncovered with present measurements based solely on income.

How to define the indicators to be included, how to use the information available, and how to construct the instruments that will be needed to collect additional information, will define the extent to which the gender approach can be included in the measurement.

The basic indicators for the new official measurement indirectly contemplate some aspects that are relevant when developing a gender approach measurement. Including them in a measurement implies facing the challenge of developing a multi-dimensional poverty measurement indicator which, until now, has only been dealt with in official figures from a unidimensional concept: the income required to satisfy certain needs.<sup>10</sup>

Technically, including different elements in a multidimensional measurement is possible when statistical and econometric methods are used. In Mexico, experiments in this respect have concentrated on official mechanisms to focalize programmes for poor households rather than on making a definition (Orozco, Gómez de León y Hernández, 1999; Hernández D., Orozco M., et. al. 2003; Hernández, Orozco y Vázquez, 2005).<sup>11</sup>

There are also unofficial approximations to measure integrated indexes but, because the relative contributions of each element within the index are arbitrary and do not take into account the correlation structures of the variables they use, their methodological base is arithmetic rather than statistical. The application of statistical methods is relevant because the indicators they propose have associated relations and even, perhaps, relations of causality.

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<sup>10</sup> In recent years the prevalent poverty measurement paradigm includes fundamental elements such as: transparency, sensitivity, possibility, robustness, decomposition (CTMP, 2002). Other desirable poverty measurement characteristics have been pointed out by Foster and Sen 1997 when referring to basic properties, Lorenze: domination and relative inequality, transfer sensitivity decomposition, subgroup consistency and independence.

<sup>11</sup> Concerning this point, it is important to emphasize differences between poverty measurement and the focalization methodologies of actions or programmes. While the first are the starting point for the second, these are generally assessed for their statistical ability to replicate how poverty is measured and reduce errors of inclusion and exclusion of households or individuals. In this respect, the concepts not included in the measurement will reflect errors in adjusting focalization methodologies making it important that, when specifying them, they are associated with the conceptual framework of what is considered as poverty, in order to avoid linking statistical errors to errors associated with the systematic exclusion of goods and services when making normative specifications of the baskets that define lines of poverty.

Measurements of poverty, mainly based on income, require complex and costly information collection mechanisms and, generally, based on simple data sources. In order to be operationally viable, household or individual level focalization methodologies require mechanisms that are relatively simpler and more economical and, in essence, based on individual rather than simple assessment of the condition of poverty of the target population in public policy programmes or activities (Hernández, Orozco y Vázquez, 2005).

The classification given below can be used with a view to organizing the conceptual framework of the indicators suggested by the Law following recommendations made in gender studies and, later on, to prepare proposals to include them in a poverty measurement.<sup>12</sup>

<b>Concept</b>	<b>LGDS Indicator</b>
Physical and economic capital	<b>I.</b> Current per capita income <b>V.</b> Housing quality and space <b>VI.</b> Access to basic housing services
Human and cultural capital	<b>II.</b> Lack of education in average household <b>III.</b> Access to health services <b>VII.</b> Access to food
Social protection	<b>IV.</b> Access to social security
Social capital	<b>VIII.</b> Degree of social cohesion

There are, of course, other concepts that are relevant when measuring poverty and are not included in these indicators. How to measure them will not be dealt with but, in view of their importance in including the gender approach to how poverty is conceived and measured, they are mentioned to prompt a broader discussion. They include those that refer to the concept of symbolic capital as a capacity to nullify the arbitrary character of capital distribution related to empowerment and independence; or those that refer to features of the physical and social surroundings such as, for example, access to shelter and availability of basic public social or security services which are, in turn, related to social, human and cultural capital, both physical and economic.

Some specialists on the theme have pointed out that conceptual and technical discussions are constrained because the Law has established these indicators a priori.<sup>13</sup> However, some technical specifications, as well as the possibility of including complementary indicators may, in the short term, help to improve measurements with a gender approach; however, studies under way and

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<sup>12</sup> In this classification use is made of some of the discernments developed in different texts by Pierre Bourdieu, Martha Nussbaum and Amartya Sen concerning the construction of symbolic capital, basic needs, well-being and human development.

<sup>13</sup> De la Torre, 2007.

measurement limitations should provide better elements to design and adjust the present specifications in the medium and long term.

Below recommendations are made for each group of indicators according to the previous classification and that include findings of gender studies of which the principal ones include those carried out by Kabeer, 2003; Presser and Sen, 1998 and Chant 2003.

### **Physical and economic capital indicators**

Using indicator **I. current per capita income**, has some practical advantages. First of all because in Mexico standardized and widely assimilated data sources are now available to measure the indicator; on the other hand, the information available allows time trends to be observed retrospectively.

As mentioned in this chapter's section 2.2, measuring available resources for each individual in the household that suggests a gender approach implies a totally distinct methodological conceptualization, both when designing measurement instruments and in how poverty is measured,<sup>14</sup> and is associated not only with measuring income, but also with consumption and individual spending.

In the short term, a determination must be made of: a) their relevance to the principal indicators which, presumably, have repercussions on the inequitable

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<sup>14</sup> For example, given that the distribution of resources within the home involves all its members, including dependency relations, the treatment of information about observations that are not independent to establish relations of association between the variables of interest and income requires the use of multi-level regression models to disaggregate the variability of individual and household incomes. These statistical instruments allow an identification to be made of the significance and the proportion of variance in incomes explained at each level of aggregation, as well as the intraclass correlation (within households) or between classes (between households) to understand the structures of resources distribution. Hernández, Orozco and Vázquez 2005 document findings about multi-level measurements considering households (level I), established in territorial spaces (level II), that reflect patterns of correlation of poverty and socio-economic profiles of the population. However, as far as is known levels of sheltering people in households have been little explored to explain the variability of incomes of individuals and in Mexico, in any case, data sources are only available for this type of analysis of incomes deriving from the labour market, public and private transfers, but not for intrahousehold transfers.

distribution of resources within the household and; and b) later on, about which of them must become a normative part of the basic needs that determine lines of poverty: for example, gender inequalities in having access to food or education that are translated into inequities in well-being.<sup>15</sup>

Data sources like the National Nutrition and Health Survey in 2006 or the National Occupation and Employment Survey, as well as the information provided by the ENIGH survey and the Population Count (held between censuses) provide information disaggregated by sex on the prevalence of malnutrition, school attendance and educational achievement, and enough information to obtain disaggregated data with socio-economic level estimates.<sup>16</sup> National level data do not reflect the existence of generalized patterns of discrimination against women in having access to resources and that undermine their basic food capacities; the levels of malnutrition between men and women are not significantly different, but it would be necessary to identify whether existing inequalities in these indicators among the population living in poverty may be exacerbated by their economic insufficiencies.

Another relevant aspect to measure incomes suggested by gender studies is the need to identify their origin. The importance of this task is mentioned in the thesis about the role played by independence and empowerment of women in the household because they help to produce incomes, as well as in the study of vulnerability of households headed by women

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<sup>15</sup> In recent years differences of gender in having access to secondary and high school education have shown an accelerated reduction. Identifying pronounced inequalities in school attendance between poor boys and girls was the starting point to design an comprehensive intervention by the Mexican Government starting in 1997 with the Progresá Programme (renamed Opportunities in 2002), to provide cash scholarships to poor people; these scholarships are greater for women than for men.

<sup>16</sup> The only survey that provides complete information on the incomes needed to measure poverty according to the official measure is the ENIGH survey. However, it is possible to approximate conditions of poverty in households from other data sources by using the socio-economic variables related to income through regression or multivariate statistical classification methods.

It is considered particularly important to identify resources provided by minors and by private transfers, as well as by the women themselves. Analyzing complementary indicators such as the number, age and sex of those who receive the income in the households, or the percentage of resources from private transfers, would allow estimates to be made on the level of women's independence inside and outside the household and, in particular, in households headed by women.

These indicators may be constructed by using the ENIGH survey information available on preparing decomposition analyses that allow a more detailed study to be made on how they contribute to gender poverty and gender inequalities that better support how they should be considered in poverty measurement.

The indicators **V. Housing quality and space, and VI. Access to basic housing services**, are relevant from the gender approach because they are related to the size and intensity of domestic and reproductive work; and they become more relevant because this type of work is mainly done by women. There is evidence that better conditions in households spaces and services help to substantially reduce the burden of domestic work.

Indirectly, these indicators permit a closer approximation to be made of inequalities as to time use and the division of labour between men and women. In addition, equipping houses with appliances plays a relevant role that must be taken into account when developing the measurement (Orozco, 2005).

### **Human and cultural capital Indicators**

Perhaps indicators **II. Lack of education in average household, III. Access to health services**, and **VII. Access to food**, have been most studied and taken into account when measuring poverty. Official measurement based on incomes considers the monetary means that allow access to these goods.

Including indicators such as lack of education has considerable potential to add elements to the measurement, but their disaggregation by sex is indispensable if they are to be relevant. Different investigations have documented that school attendance by women explains the educational achievements of their children and their risks of malnutrition to a greater extent than does school attendance by men (Schultz, 2000; Parker, 2005; Hernández M. y Hernández B., 2005; Hernández D., Barberena C., et. al. 2003). On the other hand, women's health and their educational level have impacts on their independence, their fertility (Gómez de León y Rabell, 2001), their ability to develop and their productive potential (Shultz, 2007). Women's nutrition has a significant impact on their health because of biological changes that affect their bodies at different stages of the life cycle, and it affects morbidity-mortality indicators and their life expectancy.

The greatest difficulty faced in including these indicators in a poverty measurement is the lack of association between data sources on nutrition and health and information sources on income, although there is considerable potential, over the short term, in so far as educational indicators are concerned.

### **Social protection indicators**

Indicador **IV. Access to social security**, has perhaps a closer relationship to the rest of the indicators. It was expected it would have considerable relative importance because it represents access to a set of goods and services.<sup>17</sup>

Social security implies access to pension schemes, nursery schools, health services, credits for housing and current consumption and even for education and learning, and would provide additional resources to sustain incapacitated

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<sup>17</sup> Experiences with statistical methods applied to focalization systems indicate that access to social security is a significant variable to explain household income; its relative importance is reduced when it is controlled by other indicators (Hernández, Orozco y Vázquez, 2005).

members of the household; it is also related to the certainty of receiving an income because those who have jobs with social security benefits receive regular incomes enabling them to make more long-term decisions.

This last mentioned aspect, in turn, may be important because it includes one of the factors that have a greater impact on the poor, the uncertainty about the income they will receive, and which is translated into different types of barriers, from having access to financial mechanisms, the capacity to make decisions and assume risks and the need to establish social networks to make up for such limitations.

Because of these considerations and the diversity of dimensions represented, disaggregation of this indicator by sex is relevant to gauge gender inequalities and the decomposition of their effect when measuring poverty.

Including this indicator in the measurement is relatively simple because sources of data are available about incomes.

### **Social capital indicators**

Indicator **VIII degree of social cohesion**, is perhaps the most subjective and complicated to measure because it has not been much studied, although there is a recent data source that may supply some elements to measure it over the medium term.

The Survey on Social Capital in the Urban Environment (2006) provides information on how social networks compensate for some of the limitations of the population with the fewest resources in having access to social protection, to services and to the financial system.

What is not clear if this indicator is to be included in the official measurement is whether more social cohesion reflects less poverty in the sense that those who have social networks are more able to compensate for unsatisfied needs in both public and private environments. Or if, on the contrary, they reflect more poverty levels in discussions on gender that refer to greater levels of subordination towards those who provide selfless help and solidarity, generally with repercussions on the unpaid work done by women.

While social cohesion is a fundamental element in symbolic capital empowerment, through individual and collective participation, and plays a relevant role as part of the subsistence mechanisms of the poorest homes, evidence shows that its importance is reduced to a certain extent when public and private resources, as well as social protection, make up for the needs that the social networks help to cover.

According to the results of the social capital survey of 2006, the importance of social networks and social cohesion are increased in the face of poverty; in themselves, the shortcomings of III. Access to health services, IV. Access to social security, V. Housing quality and spaces, and VI. Access to basic housing services; make it necessary to establish strategies on compensation often solved by the social networks.

In the same way as in the case of the indicator on access to social security, the social cohesion indicator, measured by social networks, is correlated to the rest of the variables to be included in the measurement, but in this case evidence shows that the correlation is negative, so that it is important to consider such patterns of association to determine the size and meaning of this indicator in a multi-dimensional measurement.

As in the case of the health and nutrition indicators, the data sources on social capital and incomes are disassociated, so that it is impossible to make joint analyses with the present data.

It is not feasible, in the short term, to include all the analyses simultaneously in a measurement; because of the characteristics of the data sources one possibility is to use available proxy variables of the ENIGH survey indicators of interest, or aggregated sources that may be linked, although this exercise has its limitations.

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