

# A method to reduce poverty levels using asset evaluation

**Pablo La Roche**

Arquitecto

Profesor de la Facultad de Arquitectura y Diseño

Universidad del Zulia / Maracibo - Venezuela

plaroche@ucla.edu

**A method to reduce poverty levels using asset evaluation**

## Abstract

Even though poverty affects both developing and developed countries, most of the strategies proposed to eliminate it have not been effective because they only concentrate on increasing income, which is only one indicator of poverty levels. But poverty is much more than lack of income, it is the deterioration of the quality of life. A proposal to reduce poverty based on the analysis of the five types of assets is presented. These assets can be natural, social, physical, human and financial. The analysis and quantification of these will permit to develop specific strategies to improve the quality of life of the families in a more permanent way.

## Key words

Poverty, poverty reduction strategies, asset evaluation.

**Un método para reducir los niveles de pobreza utilizando una evaluación patrimonial**

## Resumen

*Aun cuando la pobreza afecta tanto a los países en vías de desarrollo como a los países desarrollados, muchas de las estrategias para eliminarla no han sido efectivas ya que se han concentrado sólo en el área financiera, que es el indicador más utilizado para su evaluación. Sin embargo, ser pobre es más que la falta de ingresos, es un deterioro de la calidad de vida en todos los sentidos. En este artículo se esboza una estrategia para reducir la pobreza basada en el análisis de cinco clases de patrimonios que una persona o grupo familiar pueden poseer: naturales, sociales, físicos, humanos, y financieros. Su análisis y cuantificación permitirá elaborar estrategias específicas, adaptadas a los distintos grupos, para aumentar estos patrimonios. De esta forma los grupos familiares dispondrán de más herramientas para mejorar su calidad de vida de forma permanente y sin caer de nuevo en la pobreza.*

## Palabras clave

*Pobreza, estrategias para la reducción de la pobreza, evaluación de activos.*

## 1. DEFINITION OF POVERTY

Poverty is multidimensional; it is more than just a low level of income. The definition of poverty has evolved over the past decade together with international knowledge about the nature of poverty and its determinants. In 1990 the World Development report expanded the traditional income based definition of poverty to further include capabilities - such as health, education and nutrition. This framework explicitly recognized the interaction and causal relationship among these dimensions. It recommended a strategy for poverty reduction based on broad-based growth in incomes and on investment in basic education and health care, together with safety nets for those unable to participate in growth.

In light of the Voices of the Poor study and the evolution of events and ideas in the 1990s, the 2000 World Development Report further extends the concept of poverty to include the dimensions of vulnerability, voiceless and powerless. These broaden the causal framework for analysis and expand the range of policies and actions that can be considered (Klugman, 2000).

It is important to understand that multiple dimensions determine poverty levels; the poor suffer from multiple deprivations in addition to the

economical. The World Bank, in its sourcebook, also considers the following dimensions of poverty, in addition to the economical:

- Lack of opportunity: low levels of consumption/income, usually relative to a national poverty line.
- Low capabilities: Little or no improvements in health and education indicators.
- Low level of security: Exposure to risk and income shocks, which may arise at the national, local, household or individual level.
- Empowerment: The capacity of poor people to access and influence state institutions and social processes that shape resource allocations and public policy choices.

We must also distinguish in the types of poverty. According to Klugman (2000) there are several distinctions in these types:

**1. Chronic and transient poverty:** Different types of poverty have different determinants. Among the chronically poor there are differences between economically active (able bodied) and those who would be economically inactive (children, aged, disabled and mentally ill). Among the transient poor it is useful to distinguish between poverty that can be imperfectly anticipated, such as seasonal poverty for

agricultural households, and poverty that cannot be anticipated due to, for example, macro shocks.

**2. Short versus long run:** The significance of different causal factors may vary over time.

**3. Direct versus indirect:** much econometric analysis of the determinants of poverty identifies direct causes, without attempting to uncover more fundamental processes of which these 'determinants' are a symptom.

**4. Amenable or not amenable to change by public action:** what is amenable to change by public action varies over time, because it partly depends on the political will of governments, the capacity of the civil service and wider social norms.

## 2. LIVELIHOOD & ASSETS

### 2.1. Livelihood

The common thread that unites many agencies, which are involved in livelihood, like CARE, Oxfam and UNDP is that most of them adopt the Chambers and Conway's definition of livelihoods (or some slight variant on this). This definition holds that a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the long and short term (Chambers and Conway, 1992).

Poverty analysis has highlighted the importance of assets, including social capital, in determining well being. The livelihood approach has been used in rural and urban contexts and it is generally considered to be sufficiently comprehensive to address the challenge of large-scale poverty, yet sufficiently flexible to address context specific constraints.

### 2.2. Assets

The quality of livelihood is linked to the concept of assets. The Department for International Development (DFID), a state agency of the United

Kingdom, stresses the importance that capital assets have in livelihoods and distinguishes five categories of such assets: natural, social, physical, human and financial. It also stresses the need to maintain an "outcome focus", thinking about how development activity impacts upon people's livelihoods, and not only about immediate project outputs.

The five types of assets according to the DFID are:

**Natural capital** is the natural resource stocks from which resource flows useful for livelihoods are derived (e.g. land, water, wildlife, biodiversity, and environmental resources).

**Social capital** is the social resources (networks, membership of groups, relationship of trust, access to wider institutions of society) upon which people draw in pursuit of livelihoods.

**Physical capital** represents the basic infrastructure (transport, shelter, water, energy and communications) and the production equipment and means that enable people to pursue livelihoods.

**Human capitals** are the skills, knowledge, and ability to labor and good health important to the ability to pursue different livelihood strategies.

**Financial capital** is the financial resources, which are available to people, whether savings, supplies of credit or regular remittances or pensions and which provide them with different livelihood options.

According to UNDP's five corporate mandates, sustainable livelihood offers both a conceptual and programming framework for poverty reduction in a sustainable manner. For UNDP "livelihoods" denotes the means, activities, entitlements and assets by which people make a living. Assets are defined similarly to the DFID but UNDP adds a new category: the political asset, which includes participation and empowerment, which the DFID included inside the social category.

Attanasio and Székely (1999) classify assets into only three types in which they include those proposed by the DFID. They are: human capital, physical capital and social capital.

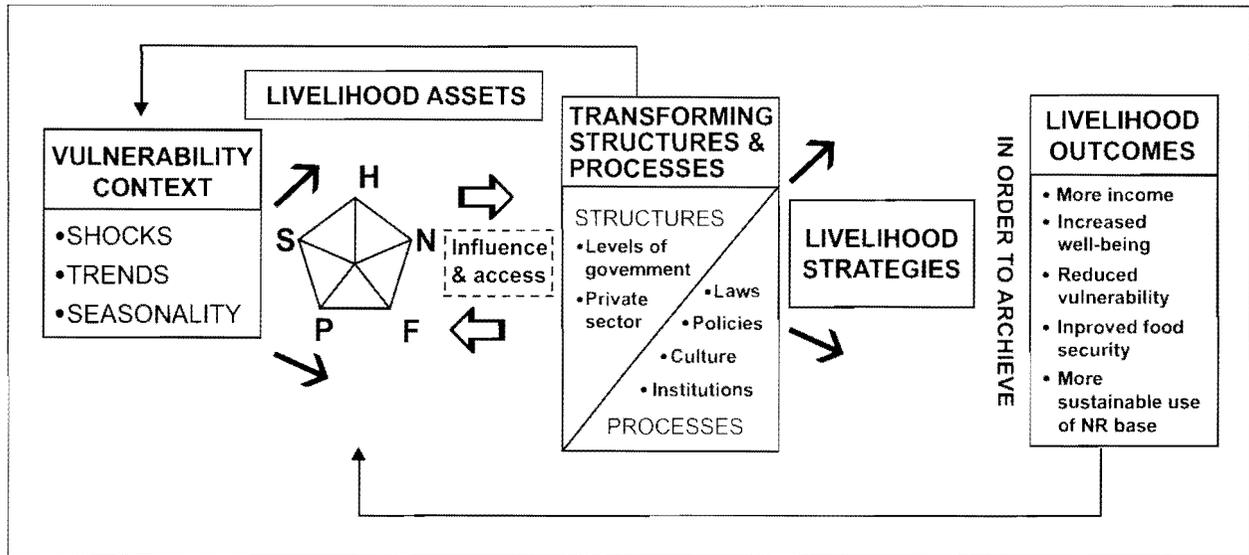


Figure 1: DFID's framework for analysis  
(<http://www.undp.org/sl/Documents/documents.htm>)

Human capital includes the set of skills that are needed to produce a good or service. The most widely used proxy for quantifying these skills is the amount of formal education. There are other types of skills that are acquired through training but are more difficult to measure and are also seldom available.

Physical capital refers to the monetary value of any form of financial asset, money holding property and capital stock used for production. This type of capital can play different roles, such as to buffer temporary shocks, for the production of income or for accumulating long-term objectives such as financing consumption after retirement.

Social capital refers to the set of norms and social networks that facilitate collective action among individuals. Since social capital is related to the structure of relations between persons it is harder to quantify.

The ownership or the access to any asset implies that an individual has the potential capacity to generate income at some point in time but the income generated depends on the use of the asset. Having an asset does not automatically assure a better livelihood, but it means that the individual has the potential to improve.

The value of assets evolves over time and families change their survival strategies accordingly. Benería and Roldán (1992) found that there has been a "privatization of the

struggle" for daily survival along with the broader process of privatization taking place in Mexico. In her study of 55 households in Mexico City, she concludes that poor households become increasingly responsible for social reproduction, with little or no help from the state, or even from private organizations or informal networks. Her study suggests that, in the case of Mexico City, rather than becoming more dependent on the state, poor women and their families have become more reliant on direct family networks than any other form of welfare provision and/or social support. In this case the family has adapted to a particular political and economical condition using their strong social assets.

### 3. POVERTY REDUCTION STRATEGIES

A detailed analysis of poverty reduction strategies is out of the scope of this paper, but a starting point for any agency that wishes to reduce poverty might be to state the four questions that should be formulated in any effective poverty strategy (Klugman, 2000):

1. Where are we now?
2. Where do we want to go?
3. How are we going to get there?
4. How do we know we are getting there?

There is a lot of common sense in asking these questions. We must first understand the magnitude of the problem, propose a direction to follow, recommend strategies to achieve this direction and a way of measuring the goals that

we proposed. But, it is not as simple as following this recipe because there are important difficulties in all of these steps. Just in the first step, which is the understanding of the magnitude of the problem, difficulties in the reliability of data collection can appear. Afterwards, agreeing on the country's poverty reduction goal will be difficult and probably suffer modifications depending on the economical and political views of the dominant group. Defining the strategies to achieve these goals might be even harder, because of its budgetary implications; and finally, it is not easy to know if the goals are being achieved, also because of issues related to the reliability of data collection and interpretation of results. Macroeconomic and poverty indicators help to monitor the effectiveness of these strategies. The indicators and the targets should address the macroeconomic determinants of economic growth and the micro-level obstacles to poverty reduction.

There are many concerns about the effectiveness of development activity. Many governments and donors commit themselves to poverty reduction but their actions are then resources and facilities (water, land, clinics, infrastructure) or on structures that provide services (education, NGOs), rather than people themselves.

On other occasions when the problem of poverty is addressed by governments, it is through the implementation of poverty-alleviation programs through social safety nets that are intended to provide temporary relief. These programs at best provide temporary cash for food support, but do not attack the causes of poverty.

According to Klugman (2000), the key elements of an effective poverty reduction strategy are:

- A comprehensive understanding of poverty and its determinants.
- Choosing public actions that have the highest poverty impact.
- Transparency.
- Outcome indicators should be set and monitored using participatory processes. Monitoring of the data is important; many organizations propose different monitoring systems. For example CARE has a method based on "well being" variables which are defined by local people who then ascribe themselves to particular categories which go from best category which is number 1 and the

worst which is number 4. Indicators are related to family size, children in School, food, house ownership, business, assets and partner. Additional information is collected on issues such as savings and income; intrahousehold and community relations; and changes in social and gender relations. These indicators are easy to understand and use and also help to track changes in the livelihood status of the participant as they move from one category to another. Klugman also proposes a range of possible indicators grouped according to the different dimensions of poverty: macroeconomic stability, poverty and inequality, security, health, education and empowerment. Each of them includes an intermediate and final outcome indicator and an international development goal.

Country differences must be acknowledged for in any strategy. There are many important factors that can affect the performance of any poverty reduction strategy. Some of these are:

- The type of governments and how representative they are;
- The capacity of national authorities to engage in participatory processes with civil society, the public and the private sector groups;
- The extent to which civil society groups exist;
- The relationships with external partners;
- The availability of data needed to measure poverty outcomes and analyze the nature of poverty and its determinants;
- The capacity to design and implement sectorial programs and policies to tackle poverty.

### **3.1. Indirect strategies to reduce poverty**

There are several measures that are generally assumed to be useful as preconditions for poverty reduction, but there is no agreement on the mechanisms to achieve these measures. These are called indirect strategies for poverty alleviation, because even though they do not directly reduce poverty levels, they are a necessary precondition to generate an environment that will help to implement the strategies that are directly targeted towards poverty alleviation. Some of these indirect strategies are:

- Assure economic growth. This is probably the engine of poverty reduction, whether we use income or non-income measures of poverty.

- Prudent macroeconomic management is a precondition for economic growth.
- Growth is also affected by a number of factors outside the control of the governments of developing countries, such as weather, and trade and foreign assistance policies from industrial countries.
- Barriers that limit the growth and economic returns of assets must be removed. Economic opportunities for the poor should be enhanced.
- Well functioning labor markets also play a central role in reducing poverty. Obstacles for job creation should be removed.

### **3.2. Direct strategies to reduce poverty: The sustainable livelihood approach**

In recent years Sustainable Livelihood (SL) has been embraced as a useful development strategy, substituting older ones like Farming and Integrated Rural Development. SL can be applied in rural and urban settings as a poverty reducing strategy.

Sustainable Livelihoods is a way of thinking about the objectives, scope and priorities for development, in order to enhance progress in poverty elimination. Sustainable livelihood aims to help poor people achieve lasting improvements against the indicators of poverty that they define (Ashley and Caarney, 1999). The sustainable livelihoods approach places people and the priorities that they define at the center of analysis and objective setting. This might seem like a principle that should be included in all approaches, but not all development approaches practice this basic principle.

## **4. A PROPOSAL OF A METHOD TO REDUCE POVERTY USING ASSET EVALUATION**

Even now, poverty is still measured using income as a welfare indicator, mainly for two reasons. The first is that income provides some indication about the capability of individuals to achieve a certain standard of living. The second is that information for income is more readily available than for other variables. In fact, even though income is not necessarily the best alternative to measure poverty it has been widely used as a measuring rod, mainly because of its availability (Attanasio and Székely, 1999).

But poverty is more than lack of income and since income is the most important welfare indicator, public policies aimed at reducing poverty have concentrated on increasing income through a variety of instruments, or even "subsidizing" income directly through cash transfers as a way of improving the indicators. Since the income of the poor improves, the indicators also improve, and there is a feeling that poverty is being reduced. But the origins of poverty are not the same for everyone, and the solution cannot be the same either.

The Sustainable Livelihood (SL) approach is an improvement over these simplistic solutions and has contributed to development by placing people and priorities at the center of analysis and objective setting, supporting systematic analysis of poverty issues in a way that is holistic but also more manageable; and achieving a wider and better informed view of the opportunities at all levels, which can impact on poverty reduction.

The sustainable livelihood approach has been used predominantly in rural areas. The project combines three key elements: personal empowerment (e.g. training), social empowerment (e.g. developing the capacity of Area Based Organizations, ABOs) and infrastructure development (urban upgrading, water systems controlled by ABOs).

There are lessons that have been learned from the application of several development methods. 1) Avoid building in too many variables in the system, because it makes analysis too costly and alienates people and 2) The approach must not be felt as donor led, because the people must feel that they own the method and are an integral part of it.

Livelihood is a function of the assets: stronger assets indicate a better livelihood. The only way to reduce poverty is to apply policies directed towards eliminating the restrictions to accumulate assets, or helping the poorest to improve their asset levels. This will assure livelihood and reduce the vulnerability to shocks. The larger the asset value the more secure the family is. For all of these reasons it would be useful to have a method to quantify assets.

Before applying any method to increase assets a method to evaluate these must be proposed. Poverty analysis should not be approached simply as an analysis of household income but on the basis of ownership and access to income

generating assets and their accumulation. Attanasio and Székely (1999) propose that household income is determined by the return on the various assets owned and used in productive fashion by the household members.

This paper proposes asset evaluation using graphical analysis to determine development strategies. If planners know the distribution and amount of the assets that a family or group possesses, they will be in a better position to determine potential problems and select appropriate policies for development. It is necessary to develop models that recognize the relationships between assets and livelihood indicators. The assets are quantified and tabulated as pentagonal figures, representing asset structures that could be of individuals, family groups, neighborhoods, cities or countries, depending on the scale of analysis. These figures would also highlight deficiencies and actions necessary to achieve a secure livelihood.

#### 4.1. Collection of information

The first step is the collection of necessary information for each asset. The assets are those proposed by the Department for International Development of the United Kingdom: natural capital, physical capital, financial capital, social capital, and human capital. Simple and easy to collect indicators are in Table 1. The first three assets are related to the possession of income generating goods, or goods that have financial value and the other two assets are non financial and related to social characteristics. Numerical results would be selected for the indicators of each asset.

Natural Capital indicates the possession of productive materials, lands or goods. For example, the ownership of a small neighborhood store or repair shop in the house is an asset that provides income and support for the family. The most important physical asset is shelter so this asset can be evaluated by home ownership. Income level and savings can determine financial capital. Potential for savings is determined by the relationship of the income level with the cost of living. The education level and the social capital can measure the human capital by age and the presence of nuclear family relationships (parents, children, brothers or sisters). By their nature, these relationships are those that would tend to be more helpful in times of trouble.

Asset	Indicator
Natural capital	Productive property: farm, store, industrial, repair or services.
Physical capital	Home Ownership.
Financial Capital	Income, savings.
Human capital	Education Level.
Social capital	Age. Marital Status. Existence of children, brothers and parents.

**Table 1:** Indicators that can be used to determine asset values

#### 4.2. Transformation of indicators

After collection, the indicators have to be transformed to a number in a scale. Depending on the precision of collected data, the scale could range from simple three point scales that go from 1 to 3 up to scales that go from 1 to 10. The values are then transformed to another set in a common scale to all the assets, with the same ranges. During this process, transformation factors for each asset are applied, which would transform the indicators to numbers related to each other (e.g. multiplying factors would convert years of schooling and money in a savings bank to the same code, like converting pesos and francs to dollars so as to be able to compare them. The transformation factors could also be adjusted depending on the country or specific characteristics for regions or groups. It can be done using a common denominator such as income retribution; Attanasio and Székely (1999) already did this for Latin America.

#### 4.3. Plotting the indicators

After applying the multiplying factors, the indicators, which have been transformed to an equivalent scale, are plotted for each asset. These values would be graphed, to scale, on a five-line radar plot, which are very easy to generate with a spreadsheet program. In this diagram the human assets and social would be at the base, the natural and physical assets at the upper left and right sides and the financial assets in the top. Thus the assets that are more related to social fields are at the base, while those that are more related to economics are at the top

(Figure 2). When all five values plotted in the lines of the radar plot are connected, a pentagon is generated. The larger the value of each asset is, the less vulnerable the group. The ideal figure, in which a completely secure livelihood can be

established, is a perfect pentagon with equal sides, and with the maximum value for each asset (Figure 3). The higher the value for each indicator is, the stronger the asset. A minimum acceptable indicator can be established for each asset.

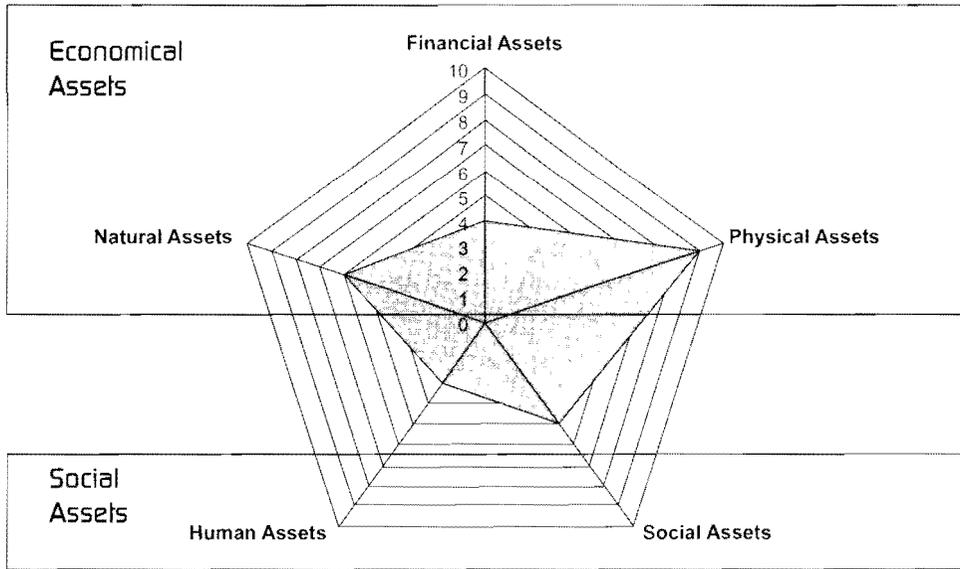


Figure 2: Radar plot with social assets in the base and economical assets at the middle and top

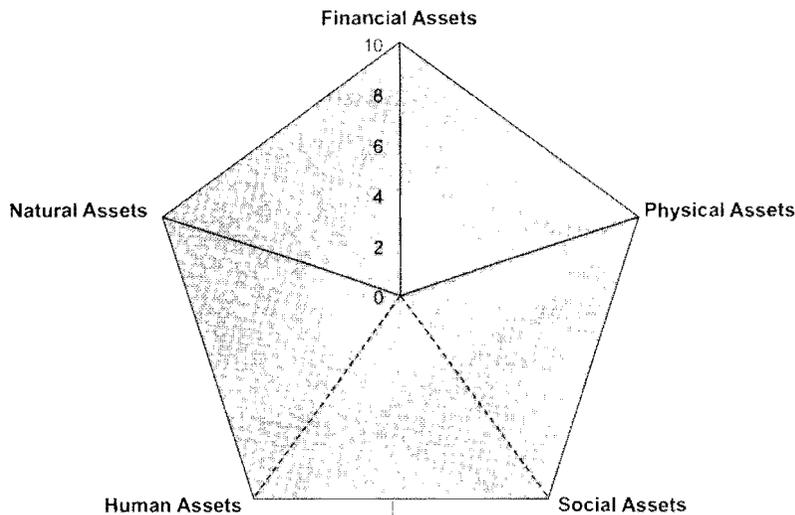
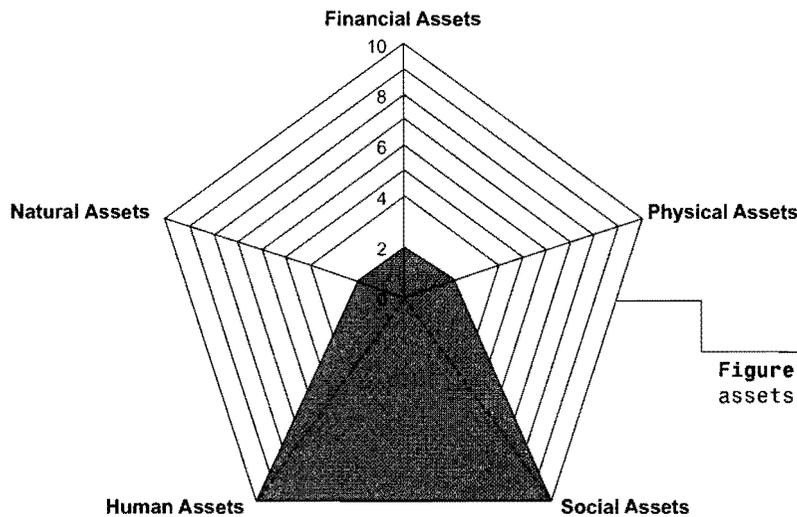


Figure 3: Perfect form with strong assets and low vulnerability

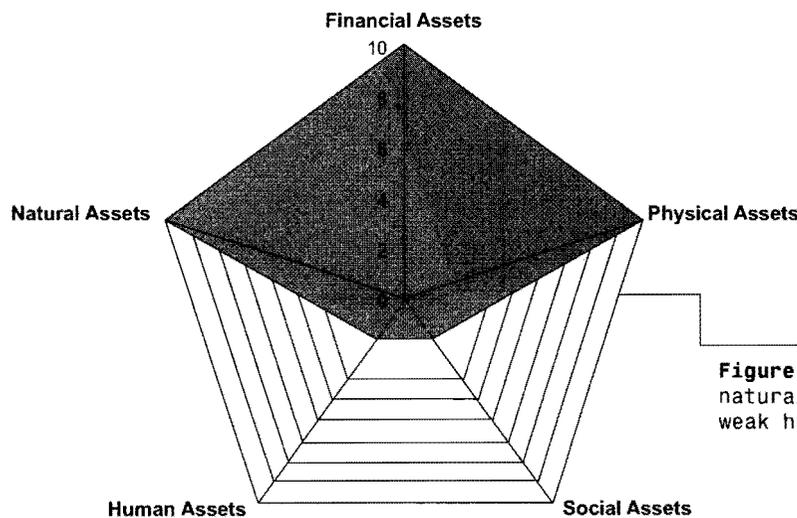
#### 4.4. Analysis of figures and proposal of strategies and goals

Different pentagon forms represent different asset structures and values and would also indicate different actions that should be taken to improve livelihood. Multiple alternatives reflecting combinations of these five assets can be generated. These would indicate different livelihood levels and development directions. Development strategies to reduce poverty can be proposed as a function of the asset structure that can be easily visualized in these figures. Goals have to be stated so that the performance of these strategies can be evaluated. Numerical averages of the five assets can also give a general picture of the livelihood. A brief exploration of some of the possible patterns that can be generated is shown in the next set of figures.

Figure 4 represents a group (family, city, etc) in which human and social assets are strong, but financial, natural and physical assets are weak. Social and community networks and education levels are well established, but there are few assets in the form of properties or savings. Since the strength of the group is in its education and networks, it will probably be able to secure other assets through well-paid labor; and even though financial assets are very low at this moment, it is probable that a secure livelihood can be established. The deficient set of physical assets would be an obstacle to generate a secure livelihood and is an area in which the government could intervene (e.g. generating the infrastructure to support housing for these groups, for example).



**Figure 4:** Strong human and social assets and weak economical assets



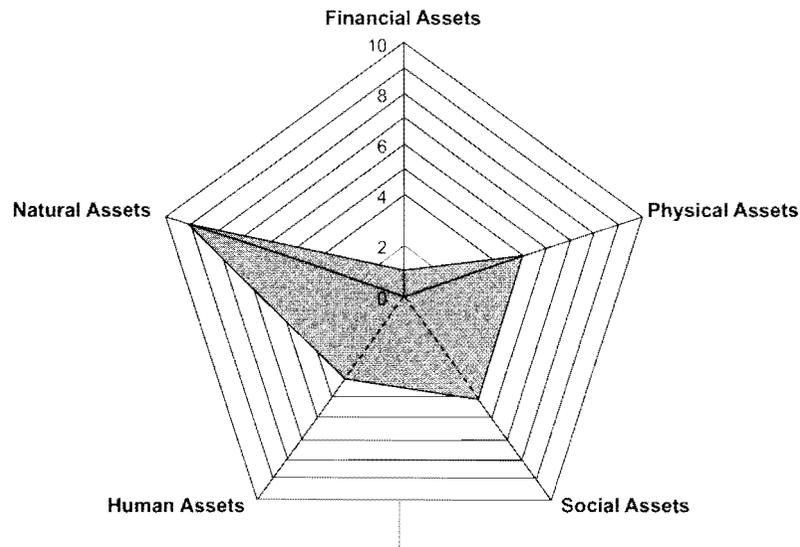
**Figure 5:** Strong financial, natural and physical assets with weak human and social assets

Figure 5 is the opposite of Figure 4. In this chart the financial, natural and physical assets are very strong but human and social assets are very low, probably reflecting, among other things a low education level. This seems to be a very good condition in which the group has a large amount of financial assets, but due to the fact that they do not have the ability or knowledge to use these assets properly they might lose all financial assets. Planning should be directed to increase human and social assets such as education and community networks.

Figure 6 represents a condition in which the main asset is the natural one, maybe in the form of some land property or farm. Because there are

no strong financial assets the government must provide low interest credits and adequate physical support for the development of the natural assets. Education would also be very helpful to increase human assets.

It would also be interesting to analyze, using a Geographical Information System, how these asset groups are distributed spatially. This analysis could be at different scales, which could also range from family, to neighborhood, to city, to region, to country. The distribution of these assets could be evaluated to determine their relationship with other variables such as income, crime rates, etc. This would be a useful planning tool at any scale.



**Figure 6:** Strong natural assets, low financial assets and intermediate, social, human and physical assets

## 5. CONCLUSION

Most of the authors and institutions that write in relation to development strategies carefully state that their proposals cannot be prescriptive or that they cannot provide "the answers". This is not only because international development has gone through several traumatic steps in which planners thought that they had the "magic" solutions to many of the problems of developing countries, but also because this is a rapidly evolving field in which concepts are evolving rapidly. The Sustainable Livelihood method is not

a magic solution. It proposes unifying criteria for asset evaluation and development of appropriate guidelines from the collection of simple and easily available field data.

I am not optimistic regarding poverty reduction; anyone that has seen poverty in a developing country -or even worse in a poor country- is probably as skeptic or more than I am. It is difficult to imagine that a problem of this magnitude can disappear with the present order

of things. For poverty reduction to occur several events must happen:

1. Each country affected by poverty must commit itself to its alleviation as a national goal. This has important policy and budgetary implications and the government must assume them. Any attempt to enhance poor people's access to assets and to transform structures and processes will rapidly confront political issues. If these are not resolved any strategy is doomed to failure.

2. The government alone cannot solve the poverty problem. The national and local dominant classes and institutions, such as the church, commerce and industry must get involved in this problem.

3. International equity is important, just as there are rich and poor people; there are also rich and poor countries. Economic equity is a first step towards the solution of poverty. Addressing the problem of one billion poor people is a huge challenge. It is impossible to succeed in this challenge without broader changes in global trends, such as the consumption patterns of richer people and in the international financial trade and industrial arrangements.

4. International cooperation must be promoted. Transnational companies have to stop seeing developing countries as large markets full of poor customers and think of them as countries full of human beings. Of course International development agencies such as the World Bank and CARE or OXFAM can help to reestablish equity, but they alone as international representatives cannot solve the problem.

5. Just as international equity is promoted, internal equity must also be promoted. Attanasio and Székely (1999) have proved that the 'excess poverty' present in many countries in Latin American Countries (given their average per capita income) is to be explained by the high level of inequality present in these countries. This is in turn likely to be linked to the high of inequality in income generating assets, and in particular human capital (education). Thus, the promotion of equality is a first and basic development strategy that is valid, not only in all Latin American countries, but also in all poor countries in the world. Education is probably one of the most important mechanisms for development.

6. Economic growth, which is probably the engine of poverty reduction, must be promoted. Whether we use income or non-income measures of poverty, economic growth is always an important factor in any growth strategy. For example, education is of no use if there are no jobs, so education has to go hand in hand with appropriate economic development.

Development strategies have proved to be ineffective in solving development problems. What can be done then? Is there no hope? I do not know. Many are trying to do something to alleviate the poverty problem, but until there, there is a clear commitment of the governments with the dominant classes, and with international cooperation at all levels, nothing will occur. The method outlined in this paper might be a very small contribution to understand the different dimensions of poverty in different groups and propose specific strategies adapted to them.

## REFERENCES

- Ashley C., Carney D. (1999). **Sustainable Livelihoods. Lessons from early experience.** Department for International Development. London, UK.
- Attanasio O., Székely M. (1999). **An Asset-Based Approach to the Analysis of Poverty in Latin America.** Inter American Development bank. Working paper #R-376. October.
- Benería L., Roldán, M. (1987). *The crossroads of class & gender : industrial homework, subcontracting, and household dynamics in Mexico City.* Chicago : University of Chicago Press.
- Carney D., Drinkwater M., Rusinow T., Neeffes K., Wanmali S. and Singh N. (1999). **Livelihoods Approaches Compared.** CARE-OXFAM-UNDP. November.
- Chambers R., Conway G. (1992). **Sustainable rural livelihoods: Practical concepts for the 21st century.** IDS discussion Paper 296. Brighton: IDS. (P 7-8).
- Klugman J. (2000) **Overview of Poverty Reduction Strategies. Preliminary Draft for Comments.** World Bank. <http://www.worldbank.org/poverty/strategies>.
- Lind A., Farmelo M. (1996). **Gender and Urban social Movements: Women's community Responses to Restructuring and Urban Poverty.** UNRISD, Discussion Paper N 76. [www.UNRISD.org/en](http://www.UNRISD.org/en)