

# INTEGRATION FOR INCLUSION WITH HUMAN DEVELOPMENT IN PERU

**Efraín Gonzales de Olarte**<sup>1</sup>  
Pontificia Universidad Católica del Perú<sup>2</sup>

## Abstract

*The purpose of this paper is twofold. On the one hand, we provide a theoretical reflection on inclusion and integration for human development, discussing also the social environment that favors inclusion and integration. These two different concepts refer to different levels of people's sense of belonging to a society, which shape how people understand and exercise their freedom of being and acting. On the other hand, we verify our theory empirically in the Peruvian society through the construction of an index of integration for human inclusion (IIHI) for the Peruvian case. We test the hypothesis that a high index level corresponds to higher probabilities of social inclusion; in other words, that if a society is able to offer well-organized material living conditions, then we can expect conditions for an inclusive human development in this society.*

**Key words:** Human development, development, integration, inclusion, Peru.

**JEL classification codes:** O15, O18, I131, O54

## INTRODUCTION

Without doubt, social inclusion is an essential condition for achieving the expansion of people's capabilities and functionings. However, a physical, economic and institutional context that facilitates inclusion and generates concrete mechanisms of integration in society and institutions is required to make inclusion possible. Social inclusion is people's aspiration to be part of a society; integration, on the other hand, is the instrumental means that allows inclusion.

Since every person needs to have a place to live and the facilities to move and interact in space, having access to housing, to energy and other services, and to road infrastructure allows people's physical integration. Access to the markets of goods, services, work, or credit, on the other hand, is the phenomenal form of economic integration in the capitalist society: any person who cannot participate in these markets will not be included in the social division of labor and therefore will not be able to get the necessary satisfiers required for his or her human development. However, the market is not the only supplier of a series of goods and services. In many cases, the market is even

---

<sup>1</sup> I thank the members of GRIDHAL for the insightful and important comments they offered at the seminar in which this paper was discussed. I am particularly grateful to Juan Ansión, Marcial Blondet, Javier Iguíñiz, Pepi Patrón, Pablo Quintanilla, Catalina Romero, Patricia Ruiz Bravo, Fidel Tubino, Jorge Tudela, Luis Vargas, Rocío Villanueva, and Felipe Zegarra, whose keen and sound remarks and contributions made from the perspectives of their different fields have allowed me to improve my arguments. Needless to say, the responsibility for all the weaknesses the paper may have is strictly mine.

<sup>2</sup> Professor of Economics, PUCP.

unable to supply some goods and services. This is the case especially when markets are underdeveloped, when they have failures, are incomplete, or simply do not exist, which results in the exclusion of sectors of the population from these goods and services. When this happens, collective action or the State replaces, complements, or supplements the market and completes people's integration into society by providing them with such goods and services. But most of all, what collective action or the State organization permits the acknowledgement of a person's right of belonging to a society simply because that person was born in a particular country or place.

Social inclusion is both a state and a process<sup>3</sup> in which people have the opportunity to exercise their capabilities and fulfill functionalities based on the entitlements achieved, but all of this can only occur if people have the required material, institutional, cultural, and personal resources in the place where they live, work, or interact socially. And this is why it is important to analyze and assess the means of integration.

The advantage of means of integration, whichever may be selected, is that they constitute targets for different policies and actions, as well as agency not only for the different levels of government but also for private profit-oriented and nonprofit organizations, and, obviously, for the people themselves. These means of integration, which are historically determined based on the technical, institutional, and social progress of societies, are constantly evolving and changing and therefore constantly moving social standards towards increasingly broader and more complex goals. But since the aspects involved are specific and concrete, they have a practical and operational nature that allows us to establish baselines and goals. Therefore, social inclusion is also historically determined.

## INCLUSION, AN ELUSIVE CONCEPT

Inclusion may be understood in several ways: as **belonging** to a social group, as **being part** or being incorporated to something, as the **connection** with something, as the **awareness** of forming part of a group or as **participating** in a collectivity. The meaning of this concept is then multiple and its interpretation is multidimensional; to some extent, therefore, this term is a signifier without signified.

From the perspective of capability approach for human development<sup>4</sup>, social inclusion could be defined as the set of social linkages that allows people to aspire and achieve the type of life they value and, at the same time, allows them to be valued in the society they belong to. Inclusion allows a person *to be* and *act* within the rules of a society and its corresponding ethical referents.

In the perspective of human development, inclusion has two sides. On the one hand, we can be included in terms of others or for others, with collective purposes, and on the other hand, there is inclusion in itself; that is, making

---

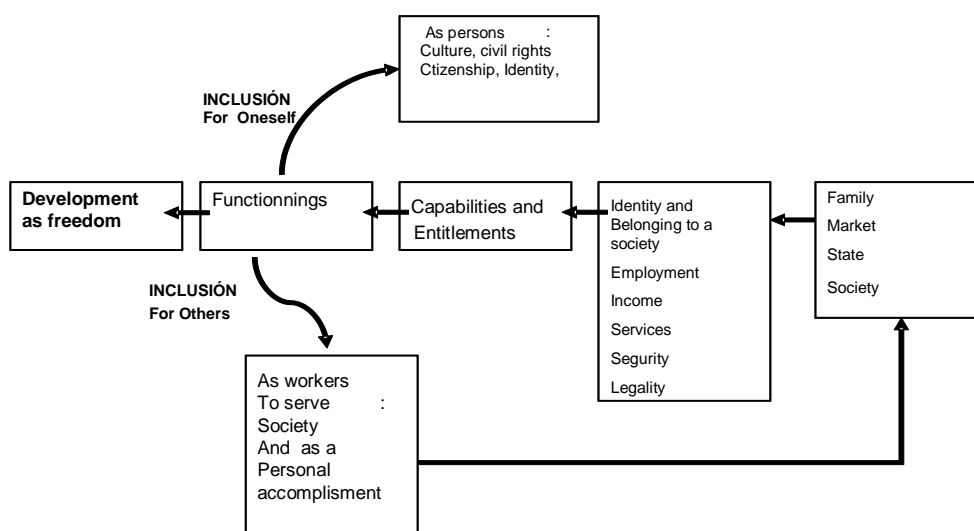
<sup>3</sup> See Sen (2000) who emphasize inclusion as a dynamic process.

<sup>4</sup> For a comprehensive approach, see Nusbaum (2011)

inclusion a means to develop individually in order to have and project a personal identity recognized by society. These are two essential sides which are inseparable from the process of social inclusion.

In Figure 1, we try to illustrate the process of social inclusion and how this process generates human development which, in turn, generates inclusion. In other words, a virtuous circle is generated if there is a sequence that leads to progress. Let us explain this.

Figure 1. INCLUSION FOR HUMAN DEVELOPMENT: A MULTIDIMENSIONAL PROCESS



Life is a continuous process in which people have varied and multiple functionings. In fact, we use our capabilities every day to achieve different purposes and obtain different results in terms of satisfaction. The use of capabilities takes place, for the most part, within a social context in which we feel included by making our functionings be useful to others, but for the sake of our own satisfaction. Therefore, the main form of social inclusion is through work, which allows us to put our capabilities to the service of others for a compensation which can be either monetary or non-monetary. At the same time, the fact of working is an achievement whose results are useful or valuable to others and which generates an inner joy of belonging to a social group to which we are included through work, but also recognized by others as belonging to this group.

Obviously, the essential condition is that the work be done voluntarily and freely; any form of coercion or imposition of work is contrary to human development. But in order that work is carried out in a systematic and permanent manner, society is organized in such a way that allows individuals to inter-act for different purposes.

First, each worker is a member of a family, which gives him the minimum intimate environment required to live, but the family in turn has material requirements that are supplied by the family members of working age. Being part of a family is almost a *sine qua non* condition for social inclusion. In this context, work is functional to the preservation of a family.

Secondly, the worker must go to the labor market to get a job, he must go to the market of goods and services to get the material livelihoods, and to the financial market to get credit; in other words, markets are the means of economic integration. Markets work as means of allocation of people and things. A person is already included in the production system once he or she gets a job, thus being included in the social division of labor.

The third facilitator of social inclusion is the State, which integrates people in different ways through the different mechanisms and services it provides. The first step for being included by the State - Nation is meeting the condition of formally belonging to it, that is, of having an identity and a nationality. Given the series of redistributive roles it has, the State then permits a country's inhabitants to have the right to receive public goods and services, regardless of their income levels. This is an egalitarian form of inclusion, which stems from the principle of equality of people within a democracy.

We can integrate the State in two ways: on the one hand, in order to participate in its operation, we have to finance it by paying taxes. This is a form of passive inclusion. On the other hand, we can participate directly in the government or in its administration. This is an active form of inclusion. But the central idea is that the State must be a facilitator of human development and an equalizer of opportunities. By performing its role, the State has to improve people's capabilities, performance, and agency under the principles of participation, subsidiarity, redistribution, and equal rights.

Social organization is therefore the result of the functioning of families, markets, the State, and non-commercial and non-government social organizations, which defines the social location of each person in relation to others and allows everyday life and human development. A society is inclusive if its families, markets, and State are able to integrate its members. If these forms of inclusion fail, society itself should be able to create (non-commercial and non-State) mechanisms and institutions on the basis of agency and participation, either collective, massive, or by groups. In other words, inclusion mechanisms depend on people's and societies willingness to have a better life.

In order to promote human development we must first generate the best means of integration so that these means may be used for the effective inclusion of people in every social level: family, market, the State, and social organizations. The aspiration of reaching a society organized for human development is to aspire to material development with social inclusion and with the possibility of increased innovations that will enable us to do better what we want to be and do.

There are multiple requirements for human development. Several of them are ends themselves and often appear to be rights in the sense of entitlements. The main ones include the right to have an identity and society's recognition of a person as an individual, the right to an occupation, to an income, to security in everyday life, to the existence of a legal framework that guarantees people's entitlements apart from human rights, the right to receive public goods and services (education, health, basic infrastructure, minimum social security), the right to own or use a piece of physical space, and the right to have our own culture and our own language.

Society, the economy, and the State have to be organized to provide the satisfiers required for human development, satisfiers being all the goods, services, rules, and acknowledgements that allow people to meet the basic and non-basic needs they require to live normally and to achieve their personal and social goals.

Poor regions and countries are unable to supply all the satisfiers needed not only because markets are incomplete or non-existent, but also because the State is small and inefficient, and because the number of families is not large enough to supply these satisfiers and because society cannot supply them either. In these conditions, human under-development, that is, the situation in which social organization is not prepared to promote the conditions for development at a specific period of time, is likely to occur.

And this is so because, in order that people have the life they truly value, they are required to have previously acquired certain capabilities and entitlements, based on which they will achieve the functionings they are able to develop in response to what society requests of them or to what each of them wants. The essence of human development is to achieve those functionings that allow us to attain personal accomplishment within a specific social context and to be socially valued or respected because of these functionings. Obviously, inclusion for human development is not merely receiving goods and services from the State, even though these goods and services may complete the satisfiers we need.

We argue that there are two types of functionings: those that have a social impact and those that have a personal impact. The former are the ones we have just explained, that is, the functionings that result in something for others or that require the participation of others to be carried out. The latter are those related to or carried out to benefit the person himself or herself. Although they often require the participation of others, they can also be carried out privately and generally have to do with religion, gender, race, citizen rights, etc. These are the functionings that allow people to individualize their existence and, in several cases, confirm their identity based on a series of factors and means. In addition to this, this way of affirming inclusion, via facts or personal actions, is likely to be a complement and inseparable aspect of inclusion "for others or by others".

But these functionings will depend on how society is organized to ensure everything else. It is not always possible, nor often desirable, to have

references or information about the functionings or capabilities that every person has. It is essential that conditions be established for the achievement of functionings.

In this article we argue that it is necessary to be integrated through various means, mechanisms, and institutions to be socially included. Inclusion is based upon this integration and, as we have pointed out, inclusion is the set of social linkages and relationships that people can establish and which allows them to aspire to a kind of life they value and which makes them be valued at the same time. Inclusion allows a person to be and act within the rules laid down in his or her own society.

## INTEGRATION AS A MEANS FOR HUMAN INCLUSION

Integration is the set of instrumental means used for inclusion. Inclusion is a state of social membership that requires different means and channels to provide the material and institutional conditions that will allow a person to “feel included”. Therefore, we believe that integration means are vehicles for social inclusion according to people’s own valuation. Therefore, there are different ways in which “being included” is perceived.

Integration is a state and a process of incorporation to the social structure through various channels and rules established for each channel.

It is a state made up by a series of spatial, economic, institutional, political, and cultural factors –each of which has specific features that we will discuss in further detail later– that individuals, families, and communities reach all the time. Each state reflects a level of accumulation of integration means that affects the quality of life and human development of individuals. When we compare countries or regions in statistical terms, in general we compare states or “stocks” that may be used for integration.

On the other hand, it is also a process, because each integration factor is used in a specific manner through different mechanisms, protocols, rules, and organizations; in other words, it serves to achieve a goal. It also evolves over time, either by motivations that stem from social interaction itself –for example, new human settlements require the establishment of new water and sanitation infrastructure–, or due to exogenous factors, like when the State establishes goals that have to be accomplished in a period of time, or when collective action establishes these goals.

Integration could easily be confused with inclusion. For example, a person participating in the labor market is in fact integrated into the economic circuit, but at the same time the fact of having a job allows the person a personal fulfillment that transcends socially through the usefulness that the fruit of his or her work has for other people. Inclusion in our sense is the expression of social membership, of being part of a society through a multi-dimensional integration on the basis of which people can display their capabilities, uphold their rights, and participate actively in their community. Thus, it is the basis to generate a

state of social inclusion. Inclusion obviously encompasses integration, the latter being a pre-requirement and the material basis of inclusion. But inclusion is beyond integration, because being included means to be part of a society with equal rights as others and being recognized in a horizontal social manner. Inclusion also comprises ingredients of equity, social recognition, respect, dignity, and self-esteem.

Basically, we can distinguish five means of integration that people need to be included in their (local, regional and national) society: spatial, economic, the State, political, and cultural integration.

**Spatial integration** refers to two things: 1. To having a place in the world, i.e., having a physical space (a house, an apartment, parks, basic infrastructure) in a particular place where one carries out his everyday activities, and 2. To having also the possibility of moving in space with the least difficulties and barriers in order to participate in markets, travel, carry out public and private procedures, and visit relatives and friends, for instance. Spatial integration requires a stable location and having all the facilities that allow us to move from one place to another and to communicate ourselves.

**Economic integration** occurs mainly through individuals' participation in different markets. People participate actively in the *market of goods and services* by buying and selling products and services; in the *labor market* offering their workforce (labor capabilities) to companies, to the State, institutions, NGOs, etc.; in the *credit market* where they borrow or lend money, and so on. Their participation in these markets integrates them with the economy and, in doing so, they permit the allocation of production, the work force, and loanable funds. In other words, they allow social division of labor to occur and to evolve fluently. All the people of working age must participate in one way or another in the market to live, to earn an income, and to confirm their economic existence, while making themselves necessary to others at the same time. So, economic integration is the basis of social integration in capitalism.

But economic integration, through the markets, has its rules of operation. Productivity has to be sufficiently high in order that we can participate competitively in the markets of goods; a worker's skills defines where he works and how much he can earn; interest rates can define who can get a loan and who cannot. For these reasons, economic integration is very dynamic, is constantly being renewed and, above all, is constantly defining who is integrated and who is not.

However, the market does not always provide all the goods and services that people need, especially in those sectors that have low productivity, no education, no land, or no capital. It is in these cases that the State intervention is necessary in its subsidiary and redistributive roles. But the State not only supplements or complements the markets; it also integrates people in other ways.

**State integration.** In compliance with its social and constitutional mandate, the State is a social integrator since it organizes society, governs it, supplies goods

and services, administers justice, and ensures a territory for its population. In order to do all this, the State must obviously finance its operations legitimately through taxation, which is the reason why the citizens of a nation-State are obliged to pay their taxes to allow the State to operate and fulfill its different obligations.

People are integrated to the State in several ways, from the registration of their birth to receiving an identity document, electing authorities or being elected as one, receiving public goods and benefiting from public services, or integrating different State institutions. The State is the most social and political integrating agent and applies uniform rules for all the inhabitants of a country, since even private business and non-business activity is regulated by the State and, in some countries, it is even organized by the State itself.

A role of the State is also to set the rules of a country's social, economic, and political organization. For this purpose, it has a set of institutions, i.e. rules and organizations that allow a country to function smoothly and in a civilized manner. The States integrates people institutionally by ensuring compliance with rules and regulations, from the Constitution to particular regulations, and by monitoring procedures through different entities established by the State to fulfill its roles.

Because of the State's capacity to impose the rule of law and fulfill its mission and roles, social integration is not only an obligation established by law, but also a right that facilitates the leveling of opportunities. In this regard, a strong State is that capable of enforcing its own rules to all citizens who, in turn, accept the rules knowing that by doing so they legitimize the State. However, this requires that the different levels of government and other State agencies also comply with their role of making citizens assess whether they are satisfied with the State and its governments. This is the most important basis of institutional integration to the State.

**Political integration** is the means through which we are represented and participate in government. In democratic nations, people are entitled to participate in their government and there are different models of government organization. First, people organize themselves to participate politically, either establishing political parties or electoral movements according to ideological affinities, shared interests, and other motivations; in other words, people participate in politics to be represented by others and struggle to govern. Secondly, they are actively involved in electing their rulers in the different levels of government. Therefore, elections are acts of political integration. Thirdly, they participate in overseeing their rulers through different participation mechanisms: open councils, community assemblies, recall processes.

From a human development perspective, political integration is the way in which the issue of collective choice arising from particular preferences and options of people is solved, generating governability conditions with equal opportunities for all. This is why a good political system allows the democratic integration (participation and representation) of people.



While the factors of territorial integration, economic integration, political integration, and integration to the State are essential to provide the necessary conditions for social inclusion, it is **cultural integration** that completes the integration factors required for inclusive human development. Understood as the collective expression of parts or of society as a whole, culture has ethical and aesthetic components that translate into traditions, customary rules of social behavior, artistic expressions, religious practices, and many other manifestations which together generate social identities, some of which are sometimes regional, local, or national identities. When countries are very heterogeneous, cultural plurality is one of their attributes, so it is important to include tolerance and appreciation for “the other one” as the element that allows cultural integration. Accepting “others” with different cultures as equals is a key element for integration and especially, or most of all, for social inclusion.

It is worth pointing out that the different facets of integration occur simultaneously and, in some cases, in a coordinated manner. Integration is a multi-dimensional or multi-faceted phenomenon which, depending on the degree of complexity and organization of these aspects or dimensions, allows the generation of similar or equal opportunities for all. **Multi-dimensional integration for human development is the means through which social inclusion can become a way of being part of a society and of valuing the fact of belonging to it.**

We could evidently discuss in further detail each component of integration and I am convinced that a study in greater depth should lead to developing a sociological and economic theory about the factors that lead to social inclusion. But this is still a pending task. For the moment, we are interested in approaching integration means in an empirical way, and to do so, we need to construct both qualitative and quantitative indicators on multi-dimensional integration for human development, because this is an empirical way of approaching the different problems facing human development today. In addition, these indicators could be very useful both for leaders, politicians, different social groups, for the regions and different localities in a country, and, of course, for public policies on specific fields and subjects in which agency actions may be carried out.

A composite indicator of integration could provide us with a “proxy” or approximate measure of the conditions that favor social inclusion, especially if it considers all of the specific components involved and then add together them. This is the practical purpose of this work.

The availability of information is evidently important to estimate these indicators. Since the information in Peru is not very abundant, we will first focus on quantitative indicators that show the levels of integration, leaving aside qualitative indicators for the moment because, although the latter are also very important and necessary, they require a special methodology.

**TOWARDS AN INTEGRATION INDEX FOR HUMAN INCLUSION (IIHI)**

The proposal we develop in this article follows the efforts of other authors to develop better indicators on the various facets of human development (Anand et al. 2009, Alkire 2007, Kuklys 2005, Gaertner et al. 2006, Lessmann 2009). In an earlier study (Gonzales 2009), we already approached the subject empirically, estimating a first index of integration for human development. The exploratory nature of the study that resulted in the insights and findings discussed below confirms indeed our interest in developing further research in this field in the future.

As we pointed out, the integration index for human inclusion (IIHI) is multi-dimensional and attempts to aggregate the different factors that facilitate the integration of individuals and families to society in a single index. Given that available statistical data is not abundant in the case of Peru, we focused on incorporating data on physical, economic, and State integration using the following formula:

**IIHI**= Physical integration (road access, access to electricity, access to phone) + Economic integration (participation in the labor market, participation in the credit market) + State integration (payment of taxes, received government spending)

Physical integration is measured through a composite index, which we estimate for each Department. Road access depends on the quality and quantity of communication means by land or roads. In this case, we use roads, represented by the percentage of paved roads relative to the total of roads in each Department. Access to electricity is measured by the percentage of homes with electrical connection, while access to telephone services is measured by the fixed telephone connections. The idea is that people should be able to go easily from their homes to other places; to use energy sources for consumption, production, or information purposes by having a radio, a TV set, or a computer to have access to the internet, all of which is complemented with the telephone connection. These are different means that family members can use to integrate themselves both to the nearby and the distant world.

Participation in the labor market is measured by the percentage of the economically active population that has a paid employment, that is, the workforce employed in the private or the public sector. This is probably the most important form of economic integration as it not only allows a person to have a job and an income, but also allows a person to form part of an organization or workplace where he or she is integrated interacting with other workers or directly with his or her employer based on his or her skills and qualifications. The existence of labor markets also means that there is capital that belongs to enterprises, to the State, or to another type of employers capable of hiring labor force. Thus, it denotes the existence of a social organization based on production.

On the other hand, participation in the credit market measures that a lender has so much confidence in a borrower that the former is willing to take a risk about whether the latter will pay him back or not, that is, about the possibility of

recovering his money. The relationship of persons through loans ensures a lasting integration in the future. This is measured as the percentage of credit placed relative to the gross product of a Department or region, and is also known as the degree of “financial depth”. The higher this percentage, the higher will the bases that encourage consumption or production be in the future. In this work we only use the depth of the banking sector ratio, as we only have information on bank loans.

In order to be integrated to the State it is first of all necessary that people pay taxes so that the government, in its different levels, can spend the revenues from taxes and invest them to accomplish its role through the provision of goods and services. The first thing we measure is the percentage of taxpayers included in the tax system<sup>5</sup> relative to the economically active population. Then, we measure the State integration as the percentage of public expenditure relative to the departmental GDP. We have chosen these aggregate indicators due to the constraints in terms of availability of information. The indicator can evidently be improved if it is broken down in terms of the different goods and services given to the population. Of course, based on the principles of universality, equity, and inclusion, State integration involves the incorporation of the entire population. The size of the State vis-à-vis the size of the private economy is therefore important since this is the first requirement to level up the integration of people, especially in the regions and Departments in which there is little tax collection.

Given that we have data on all of these indicators at the level of departments, our analysis will be based on disaggregated data of each of Peru's 24 Departments. The Department, the political-administrative unit used in Peru, provides an intermediate level of disaggregation of information that allows us to move forward in exploring the conditions required for social inclusion, but we must point out that this level of data disaggregation has two important limitations.

The first one is that there are significant differences in integration conditions in the cities and in rural areas. The levels of poverty and of deficiency of material conditions in the rural Sierra and rural Selva areas are greater than in urban areas (2001 Iguíñiz, Figueroa 2001, Gonzales 2003). If the data allowed us to distinguish between the urban and rural areas in every Department, we would have a better idea of integration conditions.

The second constraint is that it would be better to have a greater level of disaggregation, for example, at the level of the 195 provinces or, even better, at the level of the 1747 districts, since this would allow us to better identify individuals and families' shortcomings for integration, which would contribute not only in terms of public policy-making, but also in terms of collective action and, of course, in terms of corporate social responsibility. Unfortunately, many of the indicators are not available.

---

<sup>5</sup> In Peru, every person of working age must have a taxpayer identification number (Registro Único del Contribuyente - RUC). A person who has a small business can choose to have a simplified taxpayer registration (Registro Unitario Simplificado - RUS) and institutions must have a RUC.

The data on the different indicators are presented in percentages so that we can aggregate them, and all the indicators have the same weight as we assume that they are equally important<sup>6</sup> in a first phase of research. It is obvious that when we consider physical aspects, the access to roads is a public good available to everyone, whereas electricity and telephone connections are indicators of household levels. The indicators of economic integration are expressed as percentages of people in the case of integration to the labor market, while financial depth, on the other hand, is measured in relative values. Moreover, the values of State integration are a mixture of percentage of taxpayers (people) and relative values. Therefore, these indicators are at the same time multi-dimensional and heterogeneous. Despite being qualitatively different, mixing these indicators is justified since the more they come close to 100%, the more that integration conditions should allow greater inclusion. Even though there is a risk that an indicator may offset another indicator, each one has, as we shall see, small variances which do not drastically affect the final result.

The additional advantage of this type of index is that each indicator is useful by itself and may be used as a baseline for public policies, business decisions, etc. in specific areas. In aggregate terms, it allows us to make integration “rankings”, but each index has a specific composition of indicators and should be read as a multidimensional index. In other words, the set of components of the index themselves are indicators of the progress or shortcomings of integration means. The aggregate index is a global measure, which may be the same in one Department and in another one, but which does not have the same individual components.

A first attempt to measure some indicators was made for year 2000 (UNDP 2006, Gonzales 2009) with an integration for human development index using indicators of physical and economic integration. See table 1.

---

<sup>6</sup> One could intuitively assume that participation in the labor markets and the fact of receiving goods and services from the State should have a higher weight, but it is necessary to find the algorithm required in order to suggest weightings.

**Table 1. Perú: Integration and Human Development 2000**

|               | Economic Integration |             |       | Physical Integratio |                                    |                                        |       | HDI   | Integration Index |
|---------------|----------------------|-------------|-------|---------------------|------------------------------------|----------------------------------------|-------|-------|-------------------|
|               | % EAP salaried       | Credit /GDP | Index | % Paved Roads       | % houses w. electricity connection | % houses w.fixed telephonic connection | Index |       |                   |
| <b>Total</b>  | 37.2                 | 19.6        | 28.4  | 13.0                | 74.9                               | 25.6                                   | 37.9  | 0.620 | 33.1              |
| Huancavelica  | 14.1                 | 0.0         | 7.1   | 5.7                 | 50.5                               | 1.6                                    | 19.3  | 0.460 | 13.2              |
| Cajamarca     | 21.5                 | 0.9         | 11.2  | 8.5                 | 32.8                               | 4.5                                    | 15.3  | 0.495 | 13.2              |
| Huánuco       | 17.2                 | 1.6         | 9.4   | 9.8                 | 36.9                               | 5.3                                    | 17.3  | 0.494 | 13.4              |
| Puno          | 21.7                 | 1.9         | 11.8  | 11.9                | 49.0                               | 5.7                                    | 22.2  | 0.512 | 17.0              |
| Apurímac      | 20.5                 | 0.6         | 10.6  | 5.3                 | 61.0                               | 4.2                                    | 23.5  | 0.457 | 17.0              |
| Ayacucho      | 21.6                 | 1.0         | 11.3  | 4.2                 | 66.3                               | 7.4                                    | 25.9  | 0.488 | 18.6              |
| Loreto        | 30.5                 | 4.0         | 17.2  | 2.1                 | 48.3                               | 9.8                                    | 20.1  | 0.563 | 18.6              |
| Amazonas      | 31.0                 | 0.6         | 15.8  | 8.7                 | 54.0                               | 3.6                                    | 22.1  | 0.515 | 19.0              |
| Pasco         | 31.1                 | 0.7         | 15.9  | 4.2                 | 59.4                               | 4.8                                    | 22.8  | 0.575 | 19.4              |
| Cusco         | 21.6                 | 3.4         | 12.5  | 8.4                 | 64.1                               | 12.1                                   | 28.2  | 0.537 | 20.3              |
| San Martín    | 32.8                 | 4.0         | 18.4  | 10.3                | 49.7                               | 7.6                                    | 22.5  | 0.553 | 20.5              |
| Madre de Dios | 37.4                 | 0.3         | 18.8  | 0.7                 | 62.4                               | 10.2                                   | 24.5  | 0.621 | 21.6              |
| Ancash        | 30.1                 | 7.4         | 18.7  | 12.3                | 61.8                               | 14.5                                   | 29.5  | 0.577 | 24.1              |
| Ucayali       | 36.1                 | 4.7         | 20.4  | 11.6                | 63.0                               | 10.6                                   | 28.4  | 0.565 | 24.4              |
| Piura         | 31.8                 | 7.6         | 19.7  | 19.5                | 61.6                               | 10.9                                   | 30.7  | 0.551 | 25.2              |
| Junín         | 34.3                 | 3.2         | 18.8  | 9.1                 | 84.3                               | 12.8                                   | 35.4  | 0.578 | 27.1              |
| La Libertad   | 34.0                 | 7.4         | 20.7  | 11.7                | 73.4                               | 22.2                                   | 35.8  | 0.613 | 28.2              |
| Tumbes        | 37.5                 | 1.9         | 19.7  | 27.1                | 85.9                               | 13.8                                   | 42.2  | 0.620 | 31.0              |
| Moquegua      | 40.5                 | 2.9         | 21.7  | 18.3                | 85.8                               | 21.9                                   | 42.0  | 0.666 | 31.8              |
| Tacna         | 41.3                 | 3.8         | 22.6  | 18.5                | 97.2                               | 26.0                                   | 47.2  | 0.681 | 34.9              |
| Arequipa      | 44.6                 | 10.1        | 27.3  | 16.6                | 94.5                               | 29.8                                   | 47.0  | 0.635 | 37.2              |
| Lambayeque    | 45.8                 | 8.0         | 26.9  | 40.3                | 85.7                               | 17.2                                   | 47.7  | 0.625 | 37.3              |
| Ica           | 49.5                 | 8.6         | 29.1  | 37.4                | 83.3                               | 21.6                                   | 47.4  | 0.667 | 38.2              |
| Lima y Callao | 51.9                 | 34.2        | 43.0  | 24.3                | 98.2                               | 53.8                                   | 58.8  | 0.744 | 50.9              |

Source: Informe de Desarrollo Humano del Perú 2005, PNUD, Lima, pp. 71

The same exercise was then carried out for year 2007 including the integration to the State (see table 2).

Table 2. Perú: Integration and Human Development 2007

|               | Economic Integration |               |       | Physical Integration |                           |                                         |       | State Integration |                           |       | HDI   | IIHI |
|---------------|----------------------|---------------|-------|----------------------|---------------------------|-----------------------------------------|-------|-------------------|---------------------------|-------|-------|------|
|               | % salaried EAP       | % Credit /GDP | Index | % Paved Roads        | % Houses with electricity | % Houses w. fixed telephonic connection | Index | % Tax Payers      | % public expenditure /GDP | Index |       |      |
| Total         | 43.0                 | 51.8          | 47.4  | 15.9                 | 74.1                      | 27.7                                    | 39.2  | 14.2              | 6.6                       | 10.4  | 0.623 | 32.3 |
| Huancavelica  | 25.0                 | 2.14          | 13.6  | 5.3                  | 55.9                      | 2.9                                     | 21.4  | 3.63              | 11.6                      | 7.6   | 0.539 | 14.2 |
| Cajamarca     | 30.3                 | 10.1          | 20.2  | 9.5                  | 40.2                      | 7.1                                     | 18.9  | 5.22              | 8.9                       | 7.1   | 0.563 | 15.4 |
| Amazonas      | 28.8                 | 7.1           | 18.0  | 15.1                 | 48.5                      | 5.0                                     | 22.9  | 5.10              | 12.4                      | 8.7   | 0.574 | 16.5 |
| Huánuco       | 28.3                 | 13.3          | 20.8  | 9.0                  | 43.1                      | 7.3                                     | 19.8  | 6.07              | 12.8                      | 9.4   | 0.566 | 16.7 |
| Ayacucho      | 30.4                 | 10.1          | 20.2  | 9.2                  | 51.2                      | 7.3                                     | 22.5  | 6.29              | 16.5                      | 11.4  | 0.562 | 18.1 |
| Pasco         | 38.5                 | 4.2           | 21.3  | 7.1                  | 69.0                      | 6.6                                     | 27.6  | 6.64              | 5.3                       | 6.0   | 0.589 | 18.3 |
| Cusco         | 29.2                 | 12.1          | 20.7  | 11.3                 | 64.4                      | 2.9                                     | 26.2  | 14.01             | 8.3                       | 11.1  | 0.580 | 19.3 |
| Puno          | 21.3                 | 29.6          | 25.4  | 19.4                 | 57.5                      | 4.6                                     | 27.2  | 6.04              | 11.0                      | 8.5   | 0.561 | 20.4 |
| Loreto        | 31.3                 | 10.9          | 21.1  | 18.9                 | 61.3                      | 19.9                                    | 33.3  | 7.42              | 10.9                      | 9.2   | 0.589 | 21.2 |
| San Martín    | 29.0                 | 20.7          | 24.8  | 20.0                 | 59.0                      | 11.6                                    | 30.2  | 6.66              | 11.5                      | 9.1   | 0.590 | 21.4 |
| Apurímac      | 34.1                 | 11.3          | 22.7  | 9.4                  | 56.6                      | 20.1                                    | 28.7  | 6.44              | 22.7                      | 14.6  | 0.561 | 22.0 |
| Junín         | 36.1                 | 15.0          | 25.6  | 11.6                 | 73.4                      | 16.9                                    | 33.9  | 9.25              | 6.8                       | 8.0   | 0.600 | 22.5 |
| Ucayali       | 36.7                 | 16.6          | 26.7  | 10.8                 | 64.6                      | 18.4                                    | 31.3  | 11.66             | 9.2                       | 10.5  | 0.602 | 22.8 |
| Piura         | 39.2                 | 15.7          | 27.4  | 20.3                 | 66.4                      | 20.5                                    | 35.7  | 7.99              | 6.1                       | 7.0   | 0.598 | 23.4 |
| Ancash        | 41.8                 | 9             | 25.4  | 19.2                 | 73.2                      | 20.1                                    | 37.5  | 8.60              | 6.1                       | 7.3   | 0.600 | 23.4 |
| La Libertad   | 45.7                 | 20.0          | 32.8  | 13.8                 | 71.9                      | 16.9                                    | 34.2  | 8.83              | 4.9                       | 6.9   | 0.621 | 24.6 |
| Madre de Dios | 47.1                 | 16.9          | 32.0  | 18.3                 | 68.3                      | 10.3                                    | 32.3  | 13.68             | 8.6                       | 11.1  | 0.630 | 25.1 |
| Moquegua      | 42.9                 | 5.9           | 24.4  | 22.7                 | 80.3                      | 17.7                                    | 40.2  | 19.45             | 4.8                       | 12.1  | 0.653 | 25.6 |
| Tacna         | 37.3                 | 14.0          | 25.7  | 26.1                 | 81.6                      | 19.1                                    | 42.2  | 23.37             | 6.8                       | 15.1  | 0.647 | 27.7 |
| Tumbes        | 39.6                 | 21.7          | 30.6  | 20.5                 | 81.1                      | 17.9                                    | 39.9  | 11.29             | 13.8                      | 12.6  | 0.649 | 27.7 |
| Ica           | 55.9                 | 14.5          | 35.2  | 25.9                 | 76.2                      | 23.6                                    | 41.9  | 11.77             | 5.5                       | 8.6   | 0.653 | 28.6 |
| Arequipa      | 47.6                 | 16.1          | 31.8  | 23.2                 | 84.2                      | 28.6                                    | 45.3  | 17.76             | 3.9                       | 10.9  | 0.648 | 29.3 |
| Lambayeque    | 46.7                 | 24.2          | 35.5  | 33.7                 | 76.1                      | 28.2                                    | 46.0  | 10.05             | 6.4                       | 8.2   | 0.618 | 29.9 |
| Lima y Callao | 52.7                 | 79.6          | 66.2  | 24.9                 | 93.0                      | 49.7                                    | 55.9  | 23.99             | 5.8                       | 14.9  | 0.679 | 45.6 |

Elaborated by the Author, Sources: BCRP, INEI (Censo 2007, SUNAT)

Tables 1 and 2 show similar characteristics; in other words, there have been no major changes between 2000 and 2007. The ranking of the integration for human inclusion index (IIHI) has had some variations. The departments with the lowest levels of integration are Huancavelica, Huánuco, and Cajamarca in both years. Lima-Callao are always at the top, followed by Ica, Lambayeque, and Arequipa, which are among the top five departments. Moreover, the departments of Puno, Apurímac, Madre de Dios, and Loreto have improved their position in the IIHI ranking, whereas the position of Amazonas, Junín, and Cusco has declined. The rest of the departments remain in the same position or close to the one they had before.

1. In Peru there is a significant dispersion in the IIHI, because there is a difference of 1 to 3 between the department with the lowest level of integration (Huancavelica) and the one with the highest level of integration (Lima-Callao), this degree of dispersion being considerably higher than the one observed in the human development index. The *Huancavelicanos* are much less integrated than *Limeños*. This is a different way of approaching the issue of distribution using a multidimensional indicator rather than only the indicator of individual

income or GDP per capita, as official agencies often do. The opportunities for human development are quite unequal and therefore the possibilities for social inclusion are also unequal.

2. The physical integration index has evolved more slowly than the economic integration index between 2000 and 2007, probably due to the greater relative economic growth the country registered in this period as well as to the slower pace of growth of public investment in infrastructure. Nonetheless, inequality would have decreased, since the physical integration index went from 1 to 3 in 2000 to 1 to 2.5 in 2007. This is undoubtedly an important step forward, since this reflects an improvement of social mobility in its various manifestations.

3. Economic integration has improved in absolute terms, but also in relative terms, as reflected in the fact that the difference of 1 to 6 observed in 2000 between the Department with the lowest economic integration (Huancavelica) and the Department with the highest level (Lima-Callao) has dropped to a difference of 1 to 5 in 2007. Despite the advance, this result confirms that the biggest integration problem is in the economic sphere. The most important aspect is that labor markets are weak, especially in provinces and in rural areas. It is worth pointing out that while the rate of salaried working population was 52.7%<sup>7</sup> in Lima, in Puno it was only 21.3%. This is the most important particular index and it shows a general low integration to the labor market in almost every department. Except for Lima and Ica, no other department reaches an integration level of 50%.

4. In terms of economic integration, despite the country's financial progress nationwide, the credit market shows the greater inequality between departments. Lima-Callao and the more urban departments have had a much more rapid progress in this area, while the more rural departments have advanced relatively less. Even though the depth of the banking sector has improved, it is still low. As we can see, two departments (Huancavelica and Pasco) are below 5%, while Lima-Callao is close to 80%. This suggests that the economic foundations and financial penetration are still very weak in several departments, which still prevents the expansion of credit coverage.

5. The State integration index ranges between 1 and 2.5 for year 2007. Because of its definition, this index does not tend to register the maximum value of 100%, but it does indicate that the presence of the State in Peru is not very high if the indicators are disaggregated. The rate of registered taxpayers, which ranges between 4% (Huancavelica) and 24% (Lima-Callao), shows a country with high rates of informality and with very low incomes that prevent that some people be classified as taxpayers<sup>8</sup>. However, redistributive efforts are observed on the side of expenditure, which is still very low relative to each department's

---

<sup>7</sup> This percentage is not only lower than the average in the countries of the region, even worst, the rate of salaried working population in Peru is barely 43%.

<sup>8</sup> Of course, the percentage of taxpayers indicated above does not mean that only this number of citizens pay taxes. Actually, most Peruvians, if not all of them, pay indirect taxes or excise taxes, which do not require citizens to have a taxpayer registration number. Nearly 60% of taxes in the country are excise taxes.

GDP, as departments with the lower rates of human development are allocated higher Government spending than the national average and higher than the one allocated to the departments considered to be “rich” (Lima-Callao, Arequipa, Lambayeque, and Ica). It is thus evident that the State has neither the size nor the quality required to promote inclusion in a more redistributive manner. With these characteristics –little tax formalization and a low level of public expenditure–, the State’s capacity of integration is limited. However, it is almost the only institution that can act as an equalizer of opportunities.

We can start verifying if our hypothesis on the relationship between integration and human development is valid or not by correlating the various indices of human development in a matrix.

In table 3 we can see that: 1. the integration index for human inclusion (IIHI) is first influenced by economic integration, then by physical integration, and to a rather lesser extent, by State integration. 2. The human development index (HDI) is correlated with the IIHI, which initially confirms our hypothesis, especially because the  $R^2$  have a similar behavior in the two years of analysis. 3. The index of State integration has lower  $R^2$  with both the index of economic integration and with the index of physical integration, which suggests that the role of the State in different Departments does not have a clear trend of complementing or substituting other factors required for greater social integration. This index has even a low  $R^2$  value with the HDI, which confirms that the State contributes relatively less to generate integration conditions for social inclusion.

| 2000                 | Economic Integration | Physical Integration | HDI               | IIHI     |      |
|----------------------|----------------------|----------------------|-------------------|----------|------|
| Economic Integration | 1                    |                      |                   |          |      |
| Physical Integration | 0.872***             | 1                    |                   |          |      |
| HDI                  | 0.900***             | 0.876***             | 1                 |          |      |
| IIHI                 | 0.953***             | 0.979***             | 0.914***          | 1        |      |
| 2007                 | Economic Integration | Physical Integration | State Integration | HDI      | IIHI |
| Economic Integration | 1                    |                      |                   |          |      |
| Physical Integration | 0.789***             | 1                    |                   |          |      |
| State Integration    | 0.356*               | 0.395*               | 1                 |          |      |
| IDH                  | 0.726***             | 0.897***             | 0.427**           | 1        |      |
| IIHI                 | 0.944***             | 0.934***             | 0.501**           | 0.857*** | 1    |

Nota: \*significant at 10%, \*\*significant at 5%, \*\*\*significant at 1%

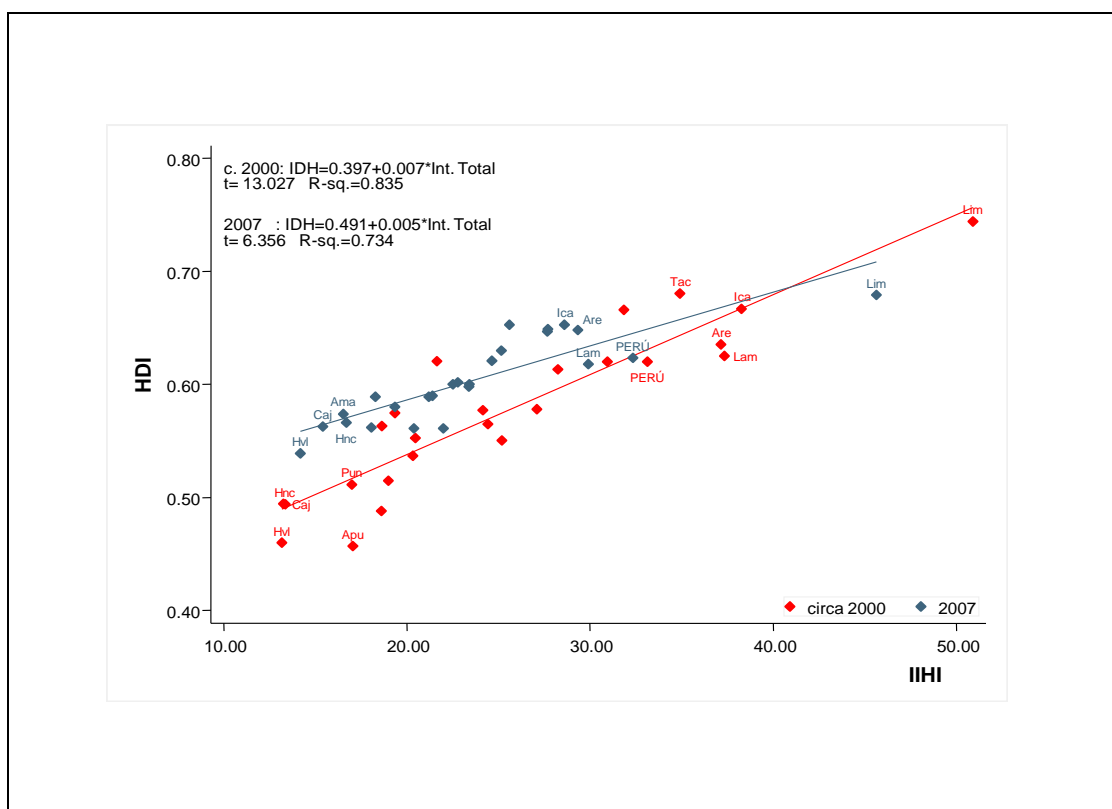
In order to verify the hypothesis more accurately, we carried out some ordinary least square regressions between the HDI and the IIHI (see Figure 2) and found out that there is a positive correlation between both indices, even though this correlation was a little bit higher in year 2000, probably due to the same reasons discussed above. However, although the slope of the curve is positive,



in line with the hypothesis, it is not as high as it should be in order that integration means generate greater human development. Even more, the slope has decreased slightly between 2000 and 2007.

Even though these results confirm the hypothesis, the dispersion of both indices indicates a very marked inequality between departments, as well as disparities between the indices of economic, physical, and State integration already mentioned above. This result suggests that great efforts are required to be made to advance towards the equalization of opportunities through the development of integration factors.

Moreover, many of the Departments are located in the lower part of the function, while Lima-Callao are away from the rest, which provides an additional evidence of existing centralism, based on factors of integration for human development. Finally, even though the slope is positive, its low coefficient suggests that the challenge in the future is that integration factors must grow at a faster pace to generate better opportunities for inclusion. The subject of the trends leading towards the convergence of the IHHI should be approached by other studies in the future.



## CONCLUSIONS

Social inclusion may be defined in multiple ways. We define it as the set of social linkages that allows people to aspire to and to live the type of life they value and which, at the same time, allows them to be valued in their local,

regional, or national communities. Social inclusion is being part of an environment that allows individuals to exercise their capabilities and rights as persons as well as the possibility of developing functionings within the frame of the rules established in their own society. Social inclusion is an end in itself, but it cannot occur unless there is a series of means of physical, economic, social, political, and cultural integration; that is, unless there is a multi-dimensional integration.

That is why we make a distinction between integration and inclusion. The former is the set of means that allows people to live carrying out their everyday activities; integration factors are hence instrumental means. But, social inclusion is the aim of integration, because what people manage to be and do depends on the social relationships and bonds they establish according to their own appraisals of what gives them a sense of completeness in terms of social life. The relationships and bonds that people establish are key points since, in the perspective of human development, an individual's use of his or her capabilities and rights is based on his or her decision and choice, which means that even if we have the same factors of integration, the outcomes in terms of social inclusion and human development are different for every person.

We have also discussed that it is necessary to distinguish between the state of being included and the inclusion process, which is a very useful distinction not only from the academic point of view, but also and especially from a practical point of view. The state of inclusion is the point or degree the process of inclusion has reached through the use of integration means at a specific period of time; it is something we can assess. It is a process because social inclusion depends on the life cycle of people, which causes people's desires and needs to change and evolve, and also because society itself evolves, changing the context for inclusion.

Needless to say, social inclusion cannot be measured directly, but integration means can be measured. It is quite likely that each person has an idea of the degree of inclusion he or she has in his or her society and that such perception varies from person to person. Thus, measuring social inclusion, that is, measuring the degree of inclusion of an entire community is not possible due to the variability of qualitative and often subjective aspects. But what we can have is a fairly acceptable measurement of integration means. Our thesis in this regard is that the probability of reaching an adequate level of social inclusion is highly dependent on the means of integration.

For this purpose, we have distinguished five types of integration<sup>9</sup> that people must attain to achieve social inclusion: spatial integration, economic integration, State integration, political integration, and cultural integration, which are expressed at the local, regional, and national levels, and therefore can be supplied by different agents: business, the State, associations, communities, non-governmental organizations, etc. It is clear that the various forms of integration occur simultaneously and, in some cases, in a coordinated manner.

---

<sup>9</sup> As we pointed out in the analysis, a more specific and detailed list of integration means may be established in each case, which would provide us with a much more complete multi-dimensional index and, therefore, with a very useful tool for private action and public policies.

That is why inclusion is multi-dimensional. The more developed and organized a society is, the more complete and more coordinated integration factors are.

Because of the lack of information, in the empirical part of this study we carried out an exploratory research focusing only on three of the integration factors: physical integration, economic integration, and State integration. Our results can therefore be improved. Defining the 24 Departments of Peru as territorial spaces of integration and using data for years 2000 and 2007, we found that there is indeed a high correlation between the integration for human inclusion index (IHII) and the human development index (HDI) in both years. In other words, that the means that permit physical, economic, and State integration favor human development and, most likely, social inclusion as well.

We also found that, in relative terms, economic integration –participation in the labor market and the credit market– is the factor that contributes the most to inclusion, followed by physical integration –paved roads, connection to the electricity grid, and fixed telephone connection–, and that the factor of State integration stands considerably behind in terms of the criteria selected.

Our findings also show that Huancavelica, Cajamarca, Huánuco, and Amazonas are the Departments that register the lower levels in the IHII index and consequently the lower HDI levels, while Lima-Callao is the Department with the highest IDH and IHII levels. The other Departments are grouped below, which would be confirming the centralization of social inclusion; that is, that the probabilities of a better inclusion are higher in Lima-Callao or in other large coastal cities.

A result that emerges from the empirical analysis is that the different indicators selected show the status of each Department and that all of this information may be used together as the basis to establish integration goals to improve social inclusion. Moreover, it is also possible to collect information at the province and district levels, which would allow us to pin down the information we have at the Department level. As we have pointed out above, the information at the level of Departments conceals the differences between the urban and rural areas and between the sizes of cities. This task is particularly important to improve the presence and action of the State, which, as we have seen, requires to be improved.

Finally, there are two methodological issues that arise from this study and require future work. First, the possibility of improving the quality of indices, increasing the number of indicators on integration and, above all, the elaboration of a theory suitable to integration factors and to the correlations of these factors. Second, because the IHII index is a multi-dimensional index, another issue that arises is the weight that each of the integration factors should have. Our assumption that all the factors have equal weights is obviously a way of recognizing our ignorance about which of these factors play a more significant role in promoting human development and social inclusion. Further empirical and theoretical reflection is required in this area as well.

Lima, october 2013

## BIBLIOGRAPHY

Alkire, Sabine (2007): “Measuring freedoms alongside well-being”, en I. Gough and J. Allister McGregor (editores): *Well-Being in Development Countries. New Approaches and Research Strategies*, Cambridge University Press, Cambridge.

Anand Paul, Graham Hunter, Ian Carter, Keith Dowding, Francesco Guala and Martin Van Hess (2009): “The Development of Capabilities Indicators”, *Journal of Human Development, Volume 9*.

Figuroa Adolfo (2001): “Social Exclusion as Distribution Theory”, en Gacitua E., C. Sojo y S. Davis (editors): *Social Exclusion and Poverty Reduction in Latin America and the Caribbean*, The World Bank, Washington D.C.

Gaernet, Wulf y Yongsheng Xu (2006): “Capability Sets as Basis of a New Measure of Human Development”, *Journal of Human Development, Volume 7, No 3, November, pp. 311-321*.

Gonzales de Olarte, Efraín (2009). “¿Es posible medir el desarrollo humano? En Ruiz-Bravo et al (compiladores): *Desarrollo humano y libertades. Una aproximación interdisciplinaria*. Pontificia Universidad Católica del Perú, Fondo Editorial, Lima, pp.239-269.

----- (2003): “Descentralización para el desarrollo humano en el Perú”, Cuadernos PNUD, serie Desarrollo Humano N° 4, Programa de las Naciones Unidas para el Desarrollo, Lima.

Iguñiz Javier (2001): “La pobreza es multidimensional: un ensayo de clasificación”. Economía, volumen XXIV N° 47, Departamento de Economía, Pontificia Universidad Católica del Perú, Lima.

Kuklys, W. (2005): *Amartya Sen’s Capability Approach: Theoretical Insights and Empirical Applications*, Berlin: Springer.

Lessmann Ortrud (2009): “Conditions of Life, Functionings and Capability: Similarities, Differences and Complementary Features”, *Journal of Human Development and Capabilities*, Vol. 10, N° 2, July.

Nussbaum Martha C. (2011). *Creating Capabilities. The human Development Approach*. Harvard University Press, USA.

PNUD (2006): *Informe sobre Desarrollo Humano Perú 2006. Hacia una descentralización con ciudadanía*. Programa de las Naciones Unidas para el Desarrollo, Lima.

Sen Amartya (1999): *Development as Freedom*, Oxford University Press, Oxford.

Sen Amartya (2000). "Social Exclusion: Concept, Application and Scrutiny", Asian Development Bank. Social Development Papers N° 1, June.