

“Monitoring Land Tenure Rights”

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I. Introduction

The fight against poverty has been part of the international agenda for many years, but with only mediocre results. This was the motivation behind the development and agreement on eight basic development indicators, the Millennium Development Goals (MDGs), in 2000, the first being the eradication of extreme poverty and hunger.

In order to reach this first goal, a deeper analysis is needed of the causes of hunger and poverty in vulnerable rural areas, including particular attention to the interaction between land policies and access to land, trade and investment, as well as macroeconomic and socioeconomic policies. In this sense, this discussion paper focuses on tenure security over land as one of the contributing factors to the reduction of poverty, as well as linking land policies to the need for adequate institutional support (credit, infrastructure, etc.).

On the one hand, studies such as by The World Bank have shown that tenure security to private property supports investments in the land and better access to credit. On the other hand, other studies have concluded that tenure security to common property has favorable long-term impacts on food security and agronomical practices. What is needed is not only the application of different measurements that contribute to realizing the goals proposed, but also an adequate and constant monitoring of these, which requires a review of the indicators related to the different goals.

According to Wilusz (2006), quantitative indicators are tools that can provoke action to reduce poverty, since they permit us to better understand the gravity of the problem, and the results achieved by taking different steps. Therefore, they may place political pressure on governments and other institutions, increasing and/or improving their involvement in campaigns to realize these goals, and give impetus to revising indicators or targets based on evaluations that are made.

For practical reasons, the MDGs are general and internationally comparable. As such, there aren't indicators that refer to very precise aspects, such as monitoring the land rights of rural communities, even though there is understood to be a relation between land access and poverty reduction, and between land loss and rural poverty. The more particular the social or economic phenomena that you are observing, the more clearly seen are its specificities. For gains made in precision and detail, there are losses in generalization and comparability. For this reason, it is necessary to develop indicators on different scales, some which allow for comparison across countries, and others that can allow comparisons within national or sub-national spaces.

¹ With the assistance of Hernán Navarro.

This discussion paper presents an overview of indicators on land tenure security, some of which allow for cross-national comparison within the Andean region, and others which may allow comparison at national levels.

II. Motivation

This document intends to advance the development of a system for monitoring and reporting on land rights of the rural poor. Primarily, it seeks to establish the most suitable indicators for carrying out monitoring of land rights. As a second step, it needs to consider what institutional design and methodology could be used in this work.

The paper draws on studies on the measurement of conditions and land rights efforts at the national level, by IFAD, ILC/CAPRI, USAID, The World Bank and UN-Habitat, as will be presented below.

III. Objectives

The overall goal is to propose a system for monitoring access to and tenure security over land by poor rural communities in the Andean region. This requires a definition of the indicators, an institutional proposal and a working methodology.

In terms of the indicators, the objective is to recognize – and compare across time and space – the situations of land access by the rural poor, and security of rights over land and resources.

More broadly, though, the work with indicators intends to contribute at local, national and international levels to improving land access by the rural poor, and consolidation of their rights. The monitoring system should be useful for alerting relevant authorities about the obstacles to accessing land and resources, and the threats to land rights. Furthermore, they should be oriented toward:

- a) relevant international institutions
- b) national governments
- c) local institutions
- d) rural communities and civil society organizations

They should contribute in this way to adequate monitoring of:

- International agreements
- National policies and their applications
- Development of land markets and the concentration / individualization of properties
- Abuses by public and private institutions
- Discrimination on the basis of gender, ethnicity, race, religion, etc.

Specific Objectives

- A. Indicators oriented to *inform public policies* relevant to resource property rights. These can be used for campaigns around land registration, agrarian reform, support services (e.g., technical extension, rural finance, etc.), land markets, conflict management, etc.
- B. Indicators oriented toward *the protection of rights* of farmers and indigenous peoples. These can be used to detect violations to laws, processes of land concentration or fragmentation, displacement, and actual and potential conflicts.

These may be used by: government agencies, intergovernmental organizations, academics, development bodies, farmers unions, etc.

IV. Principal Elements of Land Policies and International Development Themes

As reported by Quan (2007), among the principal elements of land policies and international development themes are the following: security of tenure, access and distribution of land, investment facility, and land administration. Each one is composed of other characteristics:

Security of tenure

- Land rights are submitted to a variety of norms and institutions
- Levels of security are provided for depending on different elements of tenure: content, prescription, transferability, exclusivity and applicability of rights
- Legal protection of customary rights and “good faith” occupation
- Access and extension of registered and documented rights
- Land disputes and mechanisms of conflict resolution
- Security of rights to resources managed as common property
- Rights of specific groups: women, indigenous peoples and other minorities
- Evictions without legal process or land-rights arbitration
- Perceptions of security

Access and distribution of the land

- Equity, productivity and economic growth; inequity among groups and social justice
- Levels of landlessness and inequity in the distribution of land
- Legal provisions, programs and mechanisms for specific groups
- Time, costs and steps to register the rights to land, broken down by urban/rural and occupants/investors
- Access to natural resources and common property resources; frameworks for negotiation and management

Access to land markets

- Access and distribution of lands, including also the concentration and loss of land rights

- Property transfers and use rights; development of restrictions in rental and sales markets
- Access to land markets by the poor
- Use of land as collateral and development of credit markets
- Access to clear, flexible and sure contracts, with protection to both parties
- Effectiveness of the procedures to register transactions; cost and time of transactions

Facility of investments in the land

- Enterprise structures, access to capital, investment incentives, internal and external investments
- Accessibility to land and security of rights for investors
- Procedures for access, transaction and registration: cost, time, steps and transparency (World Bank Doing Business Survey)

Land administration

- Equity, accessibility, efficiency and level of implementation of laws
- Time and cost of registration
- Percentage of land that is registered
- Percentage of data that is complete and included in the cadastre
- Difficulties, incompatibilities, and delays in the system
- Rent-seeking and corruption

V. Indicators of Tenure Security

In this section, different sets of proposed indicators are presented, with the goal of understanding the range of possibilities that would permit the selection of those which are most relevant and pertinent to the reality of Andean countries.

1. Summary of Indicators developed by international organizations (summaries)

- **World Bank Doing Business Survey:** Collects precise information on access to land, tenure and administrative processes that cover only urban commercial property. Publishes information on the basis of this information for the purpose of informing and stimulating policies.
- **IFAD:** As part of its program development process, IFAD collects studies and expert opinions on the access of land by poor and vulnerable households, tenure security, land market functioning, and management of common property in rural areas.
- **UN-Habitat:** Elaborates a household survey and groups together expert opinions on the tenure security to property in urban areas (residential), with the goal of

monitoring progress on objective 11 of MDG 7 (improve the lives of urban slum dwellers).

- **USAID / Inter-American Alliance for Real Property Rights Blueprint:** Establishes standards and indicators for the evaluation of rights to property, land markets and systems of land administration in the Americas.
- **ILC / CAPRI:** Discussion paper on developing indicators of secure access to common property.

2. Types of Indicators

This section discusses sets of potential indicators that others have identified.

A. Dano Wilusz, paper on Indicators of Secure Tenure over Common Property, prepared for ILC

Four types of existing indicators are most relevant to common property settings:

1. Trends within populations of “CPDPs” or common-property dependent persons
2. Presence of conflicts
3. Perceptions of future rights by CPDPS
4. Documentation of rights

In addition, indicators that measure institutional performance would be valuable to assessing rights in common property systems – measuring security of tenure as a function of certain characteristics of the institutions or organizations involved in managing land and resources as common property.

B. Millennium Challenge Corporation (MCC)

MCC has identified three sets of indicators for use in assessing project opportunities: IFAD’s indicators for access to land, IFC’s indicator of days needed to register property, and IFAD’s indicators of the costs to register property. The IFAD access to land indicator includes five components:

- Extent of tenure security provided to the poor by law
- Extent of tenure security provided to women, indigenous peoples and other vulnerable groups by law
- Extent to which registration and titling is facilitated by law
- Status and functioning of formal land markets
- Extent to which regulations recognize the management of land and resources as common property

3. Levels of coverage by indicators

Indicators can refer to different levels: local, national, global. Obviously, each one corresponds to different characteristics. This was reflected in discussion on indicators in Indonesia [at IASCP global conference on Common Property in 2006]:

- *Community level.* Indicators that are **useful to** and **usable by** community members to track security of rights to the commons – both by groups and individuals within groups – can play a role in empowering communities to claim and defend rights to the commons. Indicators can help community groups identify trends that affect their livelihood, and integrate this information into community organizing and local campaigns.
- *National level.* Indicators that depict how tenure security is changing over time on a country-wide basis can link rights to the commons to other changes in the national context, such as policy or legal reforms. Focusing at this level may provide analysis that can support campaigns for national reform, improve the accuracy of existing administrative data on the commons, or increase the accountability of national governments in the implementation of laws or regulations related to the commons.
- *Global level.* Indicators at the global level might be useful in making comparisons across countries, or to bolster analysis of the links between global policy trends and security of tenure over the commons. This could be valuable in terms of increasing visibility in international forums of the links between access to the commons and other global development priorities, such as the eradication of hunger and poverty or environmental sustainability.

4. *Heterogeneity*

Heterogeneity in relation to rights to natural resources is very broad and common. Rural societies may vary significantly in terms of political, social and cultural organization, and have distinct historical processes (colonial presence, agrarian reforms, level of market insertion, etc.), as well as very different kinds of resources. The more universal the indicators, the less specificity it may give to regional and national contexts. Possibly a middle road is desirable: a combination of universal indicators along with more context-specific ones. For this work, the intention is to develop some indicators for the Andean region as a whole, and more specifically for the physical and social characteristics of three countries, Bolivia, Ecuador and Peru.

VI. Review of proposed indicators [section not translated]

VII. Indicators and Specificities for Rural Society in Peru

1. Mapping of rural society in Peru

It has been noted that rural situations are very heterogeneous. This section intends to make a typology of right-holders, in order to locate their rights and their place in social and power hierarchies.

Type of productive unit	Socioeconomic subject	Principle characteristics
Large agro-enterprise	Corporate investors with diverse economic interests	Modern enterprise, quite possibly linked to international markets. May control hundreds of hectares of land. May be part of larger economic holdings, and/or property of foreign investors. Modern technology and management, high level of capital investment. Managed by technical professionals; labor is salaried. Almost exclusively in the coastal area.
Modern agro-livestock enterprise	Agro-business	Modern enterprise, dedicated to export, domestic market and/or supplying agro-industry. Modern management and technology, with high level of capital investment. Labor is salaried. Holds between 30-100 hectares. Mainly in coastal region; some presence in mountains and more in the upland forest areas (<i>selva alta</i>).
Medium-scale agro-livestock enterprise	Agro-business	Land areas are smaller than groups above; also less professionalized and have fewer socioeconomic linkages. Have many modern characteristics, particularly management and technology. Medium-level capital intensity. Labor is salaried; there may be significant work role by family. Most present in the coastal area, but also in the valleys and in upland and low forests.
Small, specialized commercial agriculture	Medium-scale commercial farmers (<i>agricultores</i>) and families	Areas less than 20 hectares. Medium-level of professionalization; few socioeconomic links. Show some entrepreneurial characteristics. Management by family; labor is mostly family. Technology is in process of modernization; capital intensity is limited. Many on the coast, but also in valleys and in the upland and lowland forest areas.
Small-scale commercial agriculture	Smallholder commercial farmers (<i>agricultores</i>) and families	Areas less than 10 hectares with low irrigation. Integrated to markets, but also some production for direct consumption. Management, labor is family; occasional contracting of outside labor. Technology is more traditional. Household income is supplemented with off-farm income. Many on the coast, but also in valleys and in the upland and

		lowland forest areas.
Small, family farmers (<i>campesinos</i>)	Smallholder farmers (<i>campesinos</i>) and families	Generally carries out, in manners similar to group above, multiple activities besides farming and livestock, including via seasonal migration. Family management.
Smallholder farming communities (<i>campesinos comuneros</i>)	Smallholder farmers (<i>campesinos</i>) and families	Similar to group above, but member of a farming community (<i>comunidad campesino</i>). This group constitutes the majority of the peasantry.
Land-poor farmers (<i>minifundista</i>)		Refers to families which do not possess sufficient resources – land, in particular – to survive, let alone improve their socioeconomic conditions. Agricultural activities must be complemented by other activities.
Indigenous communities	Ethnic indigenous groups	Extended families of ethnic groups that live in the Amazon region. Control vast territorial areas.

2. Mapping of types of threats to secure land rights among smallholder farmers, peasants, land-poor farmers and indigenous communities.

Social group	Economic threats	Political / Policy threats	Social threats	Institutional deficiencies
Smallholder comercial farmers (Aprox. 380,000 families, with 5-20 ha.) (1)	Lack of or insufficient access to productive inputs impedes efficiency, places at risk property rights (e.g., land embargoes)	Lack of titles and registration of lands		Lack or insufficient access to means of production (because of formal barriers)
Campeño communities in the Andean region (Aprox. 6,000 communities, including 3 million people, or 40% of the rural population) (2)	Presence of large-scale mining	- Laws that favor of large investors over communal lands - large-scale irrigation projects in comunal lands, destined for large private investors - terrorist violence - return of refugees from terrorist violence	- Conflicts among communities - conflicts within communities	- Lands considered abandoned by the government (but are really without water) - Lack of titling and registration of communal lands
Indigenous communities (Amazon region) (Aprox. 300,000 people in 1,345 indigenous communities) (3)	- Presence of large-scale mining (gold) and oil exploration - Abuses because of lack of information about market regulations by indigenous communities	- Conflicts with government agencies - terrorist violence - “Silent” violence by mining and timber companies	- Occupation of Amazon forest areas by migrant farmers, drug-traffickers, terrorist groups - Ocasional violence by new migrants	- Inadequate legislation and/or lack of implementation and monitoring of existing regulations - lack of titles and registration - Lack of official

				recognition of common property.
Migrant farmers (migrants from the Andean region to the Amazon basin)	Mining companies			- Lack of titles and registration
Peri-urban farmers and peasants	Expanding interests by urbanizers			Laws that favor the interest of urbanizers
Landless peasants		Public investments in large-scale irrigation that exclude the landless		

VII. Proposal: Classification of Indicator Types

Presented below is a proposal for the elaboration of indicators of access to and security of rights over land.² This is followed by illustrative examples of some formats through which the relevant information could be collected. The indicators focus mainly on rights to land by campesinos communities, as they are generally found to face situations of greater levels of insecurity. In the examples, there are references to certain countries – basically the Andean countries of Bolivia, Ecuador and Peru – but they could be applied to other countries as well.

The following indicators are presented:

1. Normative (legal recognition of land rights)
2. Institutional (administration of land rights)
3. Cognitive (perception and understanding of land rights)
4. Threats and Conflicts (cases of challenges and conflicts related to land rights)
5. Catastral Data (geographic proximity to protected areas and large-scale public or private investments)
6. Statistics (quantitative data related to land rights)

1) Normative (legal recognition of land rights)

The normative indicator would be constructed through the periodic review of existing content in legal norms related to land rights. This includes norms at the international level (international agreements or conventions), the national level (constitution, civil code

² There are some who consider that property rights make reference to individual and private rights, while tenure rights refer to the rights of groups. However, as has been indicated previously, although rights may be individual or private, they may have restrictions which are formed as part of a broader “social construction”, in which case they communities may intervene. Considering this, this proposal of indicators uses both types of rights to land indistinguishably.

and different specialty laws), and sub-national level (regional and municipal norms, customary law).

At the international level, principal international agreements and/or conventions related to land would be identified, with the respective dates of entry and ratification among countries in the study (see Figure 1 for an example). This indicator would permit for comparison across countries: the country which has dates of entry and ratification which are more recent would, for example, receive a greater consideration in calculating the indicator at the given level.

To the extent possible, the main international agreements and/or conventions to which a country is signatory or has ratified would also be identified, in order to analyze the level of commitment or impact which they have on national legislation in areas related to access and tenure security of vulnerable groups.

The legal norms subscribed to in the international agreements and/or conventions have a greater comparative potential because those countries which have entered into them have the same obligations to fulfill, which are established for all signatories. The level of comparability decreases when measuring legal norms which are more specific (such as, for example, those at the local level).

By comparison, at the national and sub-national level, there may be marked differences between countries with respect to the diverse themes related to land access and tenure security indicators. For this reason, it becomes necessary to make a differentiated analysis of provisions in the constitution, laws at the national level, sub-national laws and customary laws by country (see Figure 2). It is important to note the difficulty in determining a quantifiable indicator, because of the low level of comparability at this level. Considering this, in Figure 2 the actual text of the article and/or the clause number of the respective source would be included.

As a part of the analysis, the general principles (e.g., breadth, equity, coherence and applicability) in the respective articles and/or clauses should be considered. In addition, the components of the definition of property rights (as identified by Wilusz) should be taken into consideration: right to use resources, right to benefit from resource use, right to claim the use of the resource, right to dispose of the resource (e.g., sale, collateral, rent, donation), right to succession or inheritance, and right to protection against illegal expropriation of the resource.

As can be observed in Figure 2, there should be indications of: the contents of the different legal frameworks at the national level which concern tenure rights and property rights of campesino community members, the equality in the control of and access to land, the land rights of smallholders, and the definition of property type or tenure system, among others. Through this, not only each element of the legal framework be reviewed, but also their respective breadth can be defined. The result of this review would be extremely valuable in the measurement of existing gaps between normative aspects of customary rights and those recognized by “formal” legal norms.

Figure 1						
International Level	Perú		Bolivia		Ecuador	
Existing int'l agreements and/or conventions	Date of entry	Date of ratification	Date of entry	Date of ratification	Date of entry	Date of ratification
International Covenant on Economic, Social and Cultural Rights ICESCR						
Convention of the Americas on Human Rights						
ILO Convention No 169						
Others						

Figure 2					
National Level	Perú				
	Campesino Communities – Members	Equality in land access	Gender rights	Smallholders	Others
Constitution					
National-level laws					
Sub-national level laws					
Customary norms					

A recurring theme among the participants in the electronic conference which discussed this document (in June 2007) was the great distance that exists between the state legal framework and customary norms. In other words, in Latin America there exists a legal pluralism, which has its roots in the colonial experience and which has created a system of dual rights: on the one hand, the legal framework represented by the state and, on the other hand, a customary framework with its basis in local communities. In Bolivia, for example, there are mixed property rights: family-communal rights, specifically in the

traditional areas of the *valles* and *antiplano*, which currently are dominant in practice even though not under the state law.

Customary procedures and ownership, however, do not always confirm to the requirements of state authorities for them to be recognized as having legal and provable value. In this respect, in Peru (and probably in other Andean countries) common property alludes to an assembly of lesser rights and is constantly being cut off by the government. It can be appreciated in campesino communities, for example, that property rights are limited only to cultivatable land and do not extend to other natural resources that, such as water, forest or sub-surface resources. It is for this reason that the state superimposes rights that are assigned to a third party over the ancestral and legal rights of campesino communities and indigenous communities, which leads to contradictions and potential conflicts.

Considering this gap, it is imperative to utilize a perspective of legal pluralism in the definition of key concepts such as: security, registry, titling, rights, authority or conflict resolution, etc.

2) Institutional (administration of land rights)

This component is constructed through the analysis of the institutions which have some connection to the administration of land rights. According to the World Bank (2006), a system of land administration should include principally the following aspects: (1) management of public lands, (2) registration of rights to land, (3) management of the fiscal aspects related to land rights (land taxes), and (4) regulation of resource management to ensure sustainability. At the same time, we consider it relevant to include other components of land administration systems: mediation and arbitration of conflicts, judicial resolutions of opposing interests (the existence /non-existence of specialized organs, such as land tribunals), etc.

In this way, it is necessary to define clearly the components of a land administration system to be able to calculate the institutional indicator, in order to classify the pertinent institutions as well as the specific functions that they perform. In this manner, local institutions such as municipalities, campesino community institutions and indigenous peoples' associations can be considered. For this, three levels also need to be established: international, national and local.

At the international level, the date in which a country becomes a member of a particular institution should be indicated (see Figure 3). This is followed by evaluating the level of influence that it has in the institution, on questions determined by member states. In this way, some level of comparability across countries could be established.

To measure the influence of institutions, it will be necessary to quantify the level of compliance with respect to established objectives, among the projects that these institutions support. It is feasible to collect a socio-economic impact analysis in some projects conducted, given that, in many cases, it is part of the requirements for project

implementation to conduct an *ex-post* evaluation of the project's application. Through the application of projects related to land administration systems, the level of influence that each institution possesses could be determined.

As an example, we cite on of the projects undertaken by FAO through its Regional Office for Latin America and the Caribbean. Through its regional project for Sustainable Rural Territorial Code, a General Land Use Plan (PLUT) has been developed, similar to ones developed in many Latin American countries, including Peru. The most significant anticipated results for the PLUT project in Peru are as follows:³

- A land-use scenario with its respective information for the planning process. Databases and workshop materials.
- A communication strategy for the establishment phase of a General Land Use Plan
- A General Land Use Plan for the micro-basin of Piura-Corimarca

The intended objectives were potentially generated through of a series of activities which formed part of the project. The evaluation of the project considers the level of achievement of these objectives within each of the activities that were defined. In Figure 3, this project is indicated, and with activity objectives shown in the adjacent columns. This allows for observation and evaluation of both the potential and actual results of the respective plans or activities.

On the other hand, this indicator should not consider only the accomplishment of the project's proposed objectives, but also – above all – the possible socio-economic impact that it would have among the persons who benefit, as well as the characteristics of the project's subjects. This information is useful generally as an input to the evaluation of social performance of the projects.

Figure 3			
International Level	Perú	Bolivia	Ecuador
Institutions that participate in the land administration system	Date which the country became a member of the institution	Date which the country became a member of the institution	Date which the country became a member of the institution
FAO			
World Bank			
Inter-American Development Bank			
Others			
Projects of			

³ Information taken from the FAO-PLUT website page at www.rlc.fao.org.proyecto/139jpn/misc19.htm

institutions that participate in the land administration system	- FAO – Latin America and Caribbean Regional Project – Sustainable Rural Territorial Code – General Land Use Plan (<i>Plan General del Uso de la Tierra – PLUT</i>)	
Anticipated and actual results for the project objectives	Anticipated results	Actual results
Objective 1		
Objective 2		
Etc.		

In Figures 4 and 5, the institutions at the national and sub-national level that have some connection to land rights are shown, identifying their main function from among three alternatives presented: property registry, defense of property rights, and resolution of conflicts related to property rights. The main functions of the institutions should not be the only issue considered within these alternatives, but also the institutions' level of performance. It is possible, for instance, to measure the level of performance of an institution responsible for the registration of property through the following statistical information: percentage of users whose properties are registered. In this way, the performance of institutions responsible for other functions can be measured, for example, by estimating the percentage of cases adequately resolved by the institution.

Figure 4			
National Level	Perú		
Institutions that participate in the land administration system	- Ministry of Livelihood, Construction and Housing, Construcción and Saneamiento – Body for the formalization of informal property - Organismo de formalización de la propiedad informal – COFOPRI: Special Project for Land Titling and Rural Catastre Proyecto Especial de Titulación de Tierra y Catastro Rural – PET – Judicial Authorities – Public Defender's Office		
Main function	Percentage of users with registered property	Percentage of cases adequately resolved by the institution	Others
Property registration			
Defense of property rights			
Resolution of conflicts related to property rights			

Figure 5

Sub-national level	Perú		
Institutions that participate in the land administration system	<ul style="list-style-type: none"> - Sub-national level courts - Regional offices of public registry – - Judicial authority – Public defenders office - Others 		
Main function	Percentage of users with registered property	Percentage of cases adequately resolved by the institution	Others
Property registration			
Defense of property rights			
Resolution of conflicts related to property rights			

In short, this seeks to evaluate the principal actors/institutions which perform functions related to land access and tenure security: government institutions, cooperation agencies, the private sector, civil society and other social groupings. As has been indicated previously, for this analysis not only should there be classification of the institutions, but also specification of their functions and roles with the goal of determining their main impacts on land access and tenure security.

3) Cognitive (perception and understanding of land rights)

It is expected that the greater the understanding by vulnerable groups of their rights, the greater the possibility that these rights will be respected. In this sense, this proposed indicator seeks to reflect the level of understanding and perception that vulnerable groups have concerning their rights to land.

Even when there exist norms that guarantee rights to property and the institutions that monitor their application, it is possible that farmers will not “feel” secure that these rights will be respected. The existence of large-scale investments in extractive industries within or near the territorial space of rural communities, or irrigation projects on communal lands that are still uncultivated, or the advancement of governments that are perceived to be adversaries of farmers’ interests, all may generate feelings of insecurity. Surveys, interviews and case studies can provide valuable information about these sentiments. On the other hand, farmers which are members of strong campesino community institutions may feel that their rights are relatively protected, even though they are weak under state laws.

The understanding that farmers possess concerning the existence of laws and public institutions that protect their rights, or of experiences of other farmers which have made their rights more secure in the face of threats, can also influence the feelings of security. In Figure 6, some examples of these questions are provided.

Given that this indicator considers matters which are by their nature subjective, it should be considered whether it is possible for a bias to exist in the results or in the manner of measuring them, such as if certain historical or current events are context to the study and may impact the appreciation of the security of rights to resources. Because of this, the indicator does not necessarily measure a precise level of tenure security, but it permits an approximation of the levels of concern or attention that individuals or communities have toward tenure security over their lands. For example, there can be a case in which, in spite of a latent threat from the close proximity of protected areas or mineral deposits, there may be some persons or groups which do not perceive insecurity in their lands. Thus, it could be anticipated to be an easier situation for the expropriation or other abuses concerning the recourse in this case.

Figure 6	
Local Level (Community)	Perú
Where should one respond in the case of expropriation? Effects on the land quality? Contamination in the property?	
What institution offers the greatest security? Why?	
Do you feel secure in your property rights? To what extent?	

4) Threats and Conflicts (cases of challenges and conflicts related to land rights)

This indicator considers the following issues: first, the presence and magnitude of existing threats and conflicts; second, the length of time that threats and conflicts have existed; and third, an analysis of the results of conflict resolution processes.

The presence and magnitude of threats and conflicts intends to identify which actors or groups are involved in them (for example, private concessions, large-scale agricultural or mining projects, land registry systems, etc.) and what is the focus of the dispute.⁴ This allows a calculation of the approximate period of time for which conflicts and threats have persisted, which is the second aspect of this indicator.

In the third component, an analysis is made of conflict resolution, e.g., based on the analysis of the results, it could be determined whether there is a possible bias that can favor a certain group or sector in the resolution.

For the indicators to allow a degree of comparison, it is necessary to consider not only qualitative aspects but also quantitative ones. Among these, if possible, the following can be considered: percentage of community members that have had conflicts over their rights to property in the past years (conflicts among communities, within communities, with outside settlers and/or with government agencies, etc.). Additionally, the percentage of community members that have had their rights negated in the recent years because of different causes: land degradation from use, contamination, expropriation, etc. Finally,

⁴ It could be useful to apply methodologies such as game theory that allow, among other things, to understand the nature of conflicts and predict the strategies for potential group decisions, in a manner that can feasibly identify the levels of complexity of threats and conflicts.

the percentage of lands that have been lost from the community because of the conflicts taking place. It is important to consider that the elements described here are not necessarily easily quantified, because of the difficulties in finding precise information about them.

Figure 7	
Local Level (Community)	Perú
Identification of threats and conflicts (internal / external)	
Who or what is generating internal threats and conflicts? External threats or conflicts? (Rank in order of importance)	
Length of time of threats and conflicts	
Since when has the threat or conflict been present?	
Analysis of the results of conflict resolution processes	
Expropriation	
Contamination	
Land degradation	

5) Catastral Data (geographic proximity to protected areas and large-scale public or private investments)

This indicator would be based on the supposition that the rights to land will be least secure when, in the measurement of resources, areas are encountered that have a particular state, such as mining concessions, mega-projects, historical or natural protected areas, or urban expansion. Catastral information can be used to verify such effects, e.g.: maps of the location of communities and concessions or rights to minerals, gas or petroleum; maps of natural areas, etc.

The presence of drug-trafficking and terrorist activity also often results in reduced security over land rights. Therefore, it may be necessary to make the same kind of mapping between communities and those regions. Figure 8 shows a schematic way of taking into account all the catastral information toward this end.

To calculate this indicator, the following criterion is proposed: in the measurement of the established areas, if they are found to be located closer to communities or population centers, then the level of tenure security would be lower. Following this criteria, it is possible to establish ranges or intervals of geographic proximity that offer respective levels of security of land rights (i.e., low, medium or high risk).

Figure 8	
<ul style="list-style-type: none"> - Mapping of communities and their proximity to: <ul style="list-style-type: none"> ▪ Natural protected areas ▪ Historical protected areas (cultural heritage) ▪ Large population centers ▪ Large-scale public investments ▪ Large-scale private investments ▪ Drug-trafficking or terrorist zones - Mapping of communities and their main resources 	

6) Statistics (quantitative data related to land rights)

This indicator would be constructed based on the statistical information provided by different public or private entities that collect and aggregate data on the following items (see Figure 9):

Figure 9	
<ul style="list-style-type: none"> - Land distribution – tenure structure - Tenure regime which CPDP⁵ have, considering the gender dimension or the relation to other vulnerable groups <ul style="list-style-type: none"> ▪ Rental ▪ Ownership ▪ Other - Titles of possession that CPDPs have, considering the gender dimension or the relation to other vulnerable groups <ul style="list-style-type: none"> ▪ PETT Title ▪ Title noted in the Public Registry ▪ Unregistered title ▪ Title in process ▪ Certificate of possession from MINAG ▪ Certificate of possession of Campesino Community or Indigenous Community ▪ Sales contract ▪ Inheritance (with supporting documents) ▪ Others - Population density for the geographic zone where CPDPs are located - Time and cost to obtain each type of possession title - Registered or documented CPDP within a type of institution or association - Percentage of lands that are individually manager and/or collectively or communally managed 	

In some countries, such as Peru, a significant portion of these data are not currently available, which makes more difficult its application.⁶ It is hoped that this exercise will spur the need to maintain current sources of information.

In some cases, there is valuable statistical information available in research or other studies; for example, those which compile data through surveys, interviews and/or non-published information. As such, statistical information for this indicator would be collected from different studies and current research initiatives on land access and tenure security, particularly data related to the distribution and equity of rights. For the collection of this information, it would be necessary to indicate not only the theme of the research initiative, but also to indicate its sources and dates of information, with the goal

⁵ CPDP refers to people who feel dependent on resources manager as common property, members of a common property association (i.e., those who can document membership in such an association and who are identified as such by other members of the association), members of participating groups, and those persons for whom a major percentage of consumption is derived from the commons.

⁶ An example of this is the last National Rural Census, which registered data in Peru in 1994.

of analyzing the relevance and currency of the data. Similarly, this could be relevant to noting the possible differences between data sources in the studies, in a way that allows for analysis of the different causes and conclusions (see Figure 10)

Figure 10

Studies and/or research initiatives	Research focus	Type of information available	Elements of data	Source / date
Example 1	Distribution and equity of tenure rights to land	Interviews	Land distribution Tenure structures	CEPES / 2000
Example 2				
Etc.				

The statistical data obtained from the studies and/or research initiatives can be complemented with other statistical information from different public or private entities.