

Tenure Insecurity in Venezuela: Empirical Data on the Failure of Cadastral and Registry Systems in the Reformed Agrarian Sector

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ABSTRACT: With support from the World Bank, Venezuela's National Cadastre Office set out to modernize its cadastral and land registration system. The first step in this process was a study to establish the level of reliability of existing data. The results were very disappointing. Only 17% of agrarian reform beneficiaries have agrarian reform titles. Of this 17%, two-thirds received "provisional" titles which cannot be recorded in the Public Registry. Of those that did receive "definitive" titles, in practice only about 12% were successful in having their title recorded. Moreover, even the Public Registry's cadastral information was found to contain errors in about two-thirds of the cases. The study found that none of the relevant records of title contained a cadastral reference. The study called into question the accuracy of data for agricultural lands in the Venezuelan cadastral registry system. Venezuela will have to begin anew if it is to rebuild its cadastral registry system, because simple data conversion is not an option. The Venezuelan results are a warning to foreign aid donors that cadastre and registry modernization projects may be more complex than originally anticipated. Moreover, the Venezuelan experience demonstrates once again that computers and GIS technology are not substitutes for good management and land records management practice.

Introduction

Agency for International Development (AID) Assistant Administrator for Latin America, Mark Schneider has noted:

One only has to look at the tragedy of events in Chiapas (Mexico) to illustrate the gravity of failing to address land security for the poor. There are also few issues as potentially destructive to our hopes for consolidating democracy and achieving sustainable development than the denial of access to land and property rights for the poor... Formalizing land ownership gives a sense of purpose, a stake in society and a seat in the community council. It also is the key to unlocking the door to rural credit, to new technology and to the infrastructure for rural development... (Schneider 1994).

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At present, in many Latin American countries, as much as half of all land parcels may be without title. Lacking documentation of formal ownership, these parcels command less market value than plots with formal documentation. As a result, property value is based in part not on the productive value of the land, but rather on the formality of its title. Plots without formal title are less desirable and therefore harder to sell (Coles 1989 and Stanfield 1985, 11).

In Latin America, land is often held informally, that is, without legal title. This is certainly true in Venezuela. Why do people have no title to their land? They may lack title because it would cost more to register the land than the land is worth. They may lack title because registration requires repeated and expensive travel to a capital city. Perhaps they have no right in law to occupy the land. It may be that the registration process itself is not understood. The consequences of lack of registration, whatever the causes for it, are far-reaching.

In 1993, the Venezuelan Ministry of Agriculture, with financing from the World Bank, began an analysis on how best to modernize its records of agrarian reform properties. Prior to designing a methodology for modernization, it was important to test the reliability of current information. If present data were shown to have a high level of

reliability, the Ministry could explore data conversion methods to computerize existing information. However, if the data were of poor quality, the effort would have to include new data collection—a much more expensive and time-consuming process. Consequently, the Ministry embarked on a review of existing cadastral and registry information.

Prior to the study, many legal scholars maintained that Venezuela had a very solid property registration system: no problem was perceived by the Venezuelans. Nor was there any evidence, other than a few anecdotes, to suggest that cadastral work performed failed to meet internationally-accepted norms. Nonetheless, the World Bank pushed for a review to ensure that data conversion was all that was really needed.

The Ministry contracted the Instituto Interamericano de Cooperación para la Agricultura (IICA) to perform a review. The review was then subcontracted to a Venezuelan cadastral and mapping firm (TRANARG), which hired a statistical analysis and survey firm (AGROPLAN, which performed the cadastral verification) and legal advisors (who performed the registry verification) to assist in the study. Unless otherwise cited, all data presented in this article were collected under that review (IICA 1994).

Background

In Venezuela, the Public Registry is used to inscribe land transactions. The cadastre, on the other hand, is used to define property limits in geographic terms, giving information on their relative position. Ideally, the Registry and cadastre should be coordinated.

Several major institutions are involved in the mapping and inscription process in Venezuela. The National Cadastral Office (Oficina Nacional de Catastro de Tierras y Aguas, or ONC) of the Agriculture Ministry is in charge of mapping lands in its possession. The National Agrarian Institute (Instituto Agrario Nacional, or IAN) maintains a list of agrarian reform beneficiaries and descriptions of their lots. The Public Registry (Registro Público) inscribes definitive titles issued by IAN, giving these titles legal security.

Venezuela does not yet have a comprehensive national cadastre. In urban areas, perhaps seven municipalities (out of 276) have up-to-date cadastral information (Mendoza 1993).¹ Still, the

Year	Budget (in thousands)	Dollar equivalent (in thousands)
1974	Bs. 2,125.0	\$ 494.2
1975	Bs. 18,500.0	\$ 4,303.2
1976	Bs. 20,299.1	\$ 4,704.4
1977	Bs. 20,430.8	\$ 4,751.3
1978	Bs. 33,500.0	\$ 7,790.7
TOTAL	Bs. 94,784.8	\$ 22,042.9

Table 1. National Cadastre Office (ONC) Cadastral Program resources, 1974-1978.

concept is not new. In 1936, the Public Lands Law (Ley de Tierras Baldías y Ejidos) and related Administrative Rules for the Mapping of Public Land (Reglamento de Catastro de Tierras Baldías) ordered a new cadastre. In 1960, Article 167 of the Agrarian Reform Law gave new life to the cadastre. The idea was to measure the entire country according to a determined plan, assign parcel numbers (cédulas) to each lot, and integrate this system with the Public Registry. So far, 89% of rural, agricultural land has cartographic cover, with parcel identification up to 96% (30,901 parcels have been identified). Cadastral mapping is 24% complete. However, much of the mapping lacks prior legal and agricultural land use qualification studies. Even more seriously, the information is not being updated. Still, at the moment there is high-accuracy cadastral information for about 60% of the areas north of the Orinoco River.

Between 1974-78, the Venezuelans invested Bs. 94.7 million (in Venezuelan bolivars, equivalent to about \$22 million) in aerial photography, creating the base cartographic map, parcel identification, cadastral maps and land use maps. Exact spending for this period is presented in Table 1. For the period 1987-1992, IAN spent about Bs. 723.6 million (then equivalent to about \$28.9 million) on cadastral mapping.

When discussing the Registry-cadastre link, the law distinguishes between urban and rural areas. Registration documents for urban properties must contain a survey. No such requirement exists for rural property.

IAN provides land grants in accordance with the Agrarian Reform Law. This means that tenure documentation begins with a procedure of requests and inscriptions within IAN. After receiving a parcel, beneficiaries must record their land

¹ The municipalities include, in part: Carora, Distrito Torres in Lara, Morón, Carrabobo (updated by Fudeco), Lagunillas, Zulia (updated by Lagoven), and Libertador (Caracas, with up-to-date information).

State	# of parcels	Sample size calculated	Sample size Actual-2	Sample size Actual-3	% of sample calculated
Anzoategui	1,684	81	37	17	4.81
Apure	750	84	52	43	11.20
Aragua	511	60	14	14	11.74
Barinas	1,600	60	38	25	3.75
Cojedes	2,173	40	24	24	1.84
Guárico	2,331	80	61	61	3.43
Monagas	810	40	40	40	4.94
Portuguesa	2,390	58	38	35	2.43
Sucre	1,387	80	45	46	5.77
Zulia	2,672	100	48	52	3.74
TOTAL	16,308	683	387	357	4.19

The verification utilized three instruments as sources of information: (1) "EVA-1": an office evaluation instrument for collecting data on "asentamientos" and variables to permit evaluation of maps, registration and parcel survey, (2) "EVA-2": a field verification form for capturing data on actual occupant, parcel, changes in ownership, type of title issued and registry inscription, and (3) "EVA-3": a form for updating parcel information, to be compared with data collected from EVA-2.

Table 2. Sample size: Calculation and actual.

in the cadastre (Catastro General de Tierras y Aguas) at a local office of the ONC.

At the moment, there is no taxation of rural property. However, a legal basis for such a tax can be found in Article 20 of the Agrarian Reform Law. This is relevant because mapping today may lay the groundwork for later imposition of property tax, the subject of some debate in Venezuela.

About the Survey

The primary goal of the research was to test the reliability of data contained in the cadastre and registry systems. This included factors such as quality control in data collection and transfer, whether the data remain current and whether IAN definitive titles were later inscribed in the Public Registry.

To establish a universe, the study selected ten states, Anzoategui, Monagas, Sucre, Aragua, Cojedes, Guárico, Apure, Portuguesa, Barinas and Zulia, all north of the Orinoco River (where most of the Venezuelan population live), for examination (see Figure 1). By definition, only "definitive" titles have cartographic information; "provisional" titles do not. Further, only definitive titles can be recorded at the Public Registry. From a cartographic point of view, mapping is not considered actualized if it is older than five years. Since no list of agrarian titles in the registry was available, the universe was established as all definitive titles issued by IAN during the last five years. It was

hypothesized that this universe definition would yield the best possible results, as information from the last five years of operation was considered to be more reliable than information collected at the start of the agrarian reform.

Within this universe, a representative sample of settlements ("asentamientos") was selected using statistical random sampling. The study used a 95% level of confidence. A total of 683 parcels were selected in the ten states. This sample was reduced by 42% when interviewers arrived in the field because of the absence of landholders for interview or other factors. Nevertheless, due to measures taken in the calculation of the sample, the definitive size is statistically acceptable for the population and variables studied. Within each of the sample settlements, all IAN definitive titles were tested for their cartographic and registry accuracy. Table 2 presents data on the calculated and actual sample sizes for the study.

Results

It is clear even from the universe definition that most beneficiaries lack tenure security. According to the Ministry's own figures, only 17% have definitive IAN titles (National Cadastre Office 1992, 4 and IICA 1994, 41). From its inception in 1960 until 1992, IAN issued only 177,677 titles. Of these only 57,849 were definitive. That is to say, that of those individuals who did receive an IAN title, 67% (119,828) received a provisional title

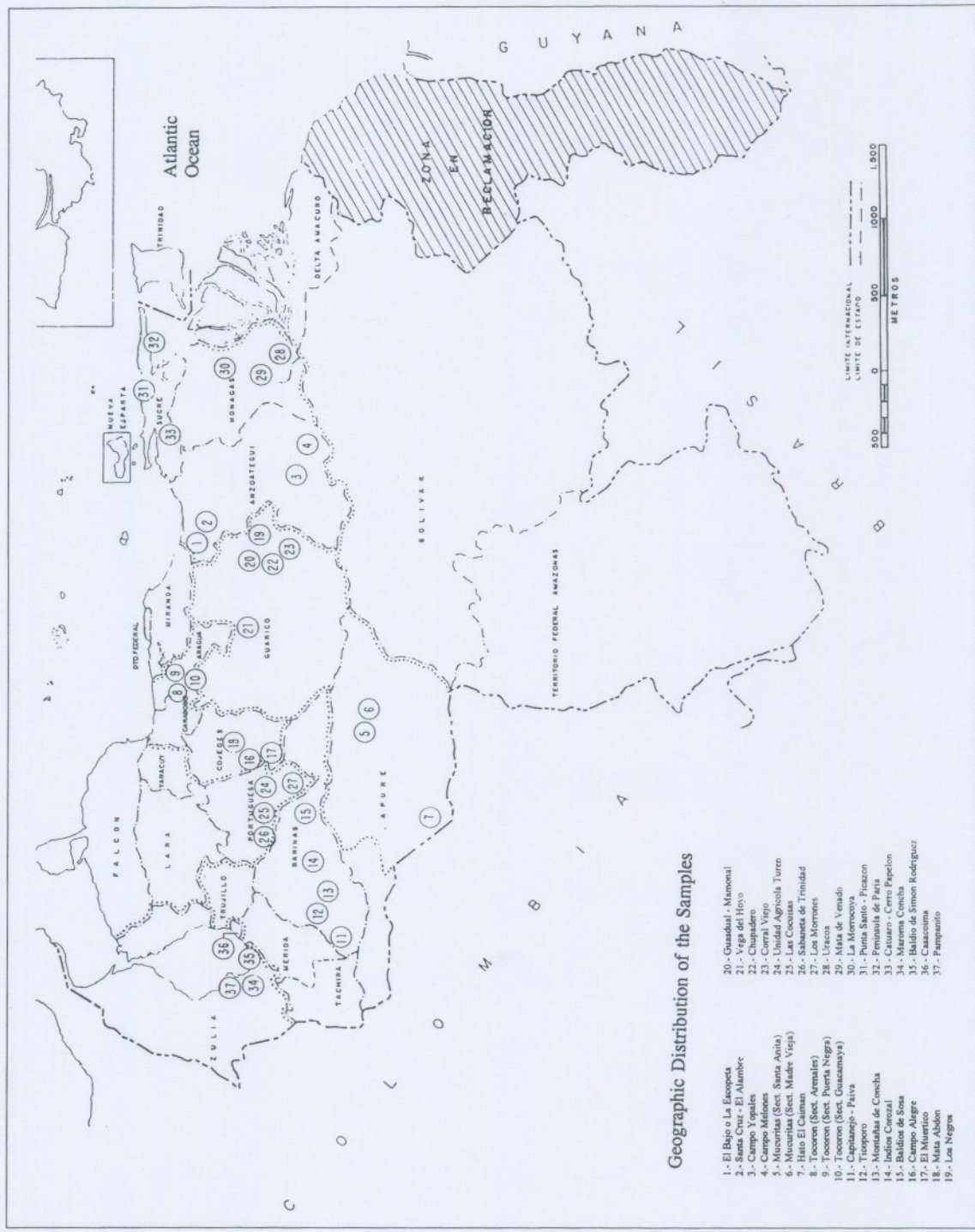


Figure 1. Map of Venezuela highlighting selected study sites.

which cannot be recorded in the Public Registry. IAN has been unable to convert the provisional titles into definitive ones due to lack of legal personnel and lack of resources for surveying and

adjudicating the parcels. Of those that finally did receive a definitive IAN title, only 12% were finally successful in having the title registered (or about 2% of all landholders) (IICA 1994, 41).

State	Difference in area (% of parcels wrong)	Prior occupant (% wrong)	Boundary descriptions (% wrong)	Registration of occupant (1) (% that have registr.)	Registration of occupant (2) (% with registr.)
Anzoategui	73	80	100	20	7
Apure	73	73	95	3	10
Aragua	71	36	93	7	14
Barinas	83	79	92	8	13
Cojedes	35	30	74	0	30
Guárico	59	67	96	9	15
Monagas	65	73	80	8	10
Portuguesa	61	76	97	6	0
Sucre	98	47	71	0	16
Zulia	55	65	72	5	0
TOTAL	63.9	63.5	86.3	6.6	10.9

Table 3. National Agrarian Institute (IAN) cadastral documentary discrepancies: Field verification.

Settlement name	Consistent
El Bajo-La Escopeta	No
El Alambre-Santa Cruz	No
Campo Alegre	No
El Muertico	No
Mata Abdon	Yes
Chupadero	No
Corral Viejo	No
Las Cocuisas	Yes
Sabaneta de Trinidad	No
Casacoima	No
Pampanito	No

If records for a particular settlement at the National Agrarian Institute and the National Cadastre Office were consistent, the table reflects a "yes" and if inconsistent, the table reflects a "no."

Table 4. National Agrarian Institute (IAN) and National Cadaster Office (ONC) cadastre records compared for 11 settlements ("asentamientos").

With regard to IAN cadastral data, the results were dismal. The study reviewed accuracy with regard to:

1. surface area,
2. registration of prior occupant,
3. description of boundaries, and
4. the correspondence of the occupation date and beneficiary name.

Great discrepancies were found in surface area (63.9% of cases had errors), prior occupant name (63.5% of cases had errors), and parcel boundary descriptions (86.3% had errors). The field

State	Number of definitive IAN titles	% Inscribed at the Public Registry
Anzoategui	428	15.5
Apure	263	15.4
Aragua	118	0
Barinas	149	14.7
Cojedes	146	14.0
Guárico	359	15.2
Monagas	230	20.1
Portuguesa	366	9.9
Sucre	257	0
Zulia	0	0
TOTAL	2,314	12.3%

Table 5. Percentage of definitive National Agrarian Institute (IAN) titles recorded at the Public Registry.

evaluation teams speculated that this high level of errors was due to lack of maintenance, lack of supervision, and lack of standards. The complete results are presented in Table 3.

IAN and ONC land records are often contradictory. In the TRANARG review, nine out of 11 settlements verified that the records were not consistent, as presented in Table 4. This low level of consistency means that integration or merger of information will be difficult and compatibility low. In some cases, IAN has several maps of the same locality, produced by different consulting firms, which are often contradictory.

Most of the agrarian reform beneficiaries who do receive IAN definitive titles never see them

recorded in the Public Registry. According to the survey, only 12.3% of those receiving titles subsequently had the titles registered. Monagas had the highest level of registration (20.1%), while three states (Aragua, Sucre and Zulia) had no registered titles at all in the sample! Complete results are listed in Table 5.

Several results were not very surprising. About three-quarters (76.4%) of agrarian reform beneficiaries are men. Most parcels had maintained their original size (91.7%), with only 1.6% selling off land and 6.7% adding land. Even if there were a tendency to parcelize over time, since the data reflect only titles issued during the last five years, it is unlikely that much change would be detected within the sample.

With regard to documents recorded at the registry, in the entire study only 20 documents reached that stage of the process. Happily, the study was able to locate all 20 (100%) in the various local registries in each state. Nineteen were individual titles, while only one was collective. Most (80%) were sale titles (*títulos onerosos*) from IAN, while a minority (20%) were grant titles from IAN (*títulos gratuitos*). Perhaps most surprisingly, *not one of these recorded titles had with it any survey or cadastral information*. This is alarming when we consider that the "universe" for the study included only definitive titles, meaning that IAN had already completed survey work on all parcels studied. This reveals a 100% breakdown in the registry process at the final step.

The root of this complete breakdown is not merely in poor performance but in the law. Registrars legally cannot refuse to record documents that meet all legal criteria. As mentioned above, cadastral information is not a required criteria for the registration of rural property. Consequently, there is nothing in the law that requires that the registration process be complete, with up-to-date cadastral information referenced at the Public Registry.

Analysis of the Results

The Venezuelan data are even more alarming when compared with surveys in other countries. Studies in Ecuador and Central American countries have found that 50-60% of parcels are not recorded in the Public Registry (Stanfield 1991, 1 and Developmental Alternatives Corp. (DAI) 1990, 16-17). Venezuela compares extremely

unfavorably, with only 2% of agrarian beneficiaries registered.

The extreme lack of rural registry inscription compares badly even within Venezuela when contrasted with urban lands. The Proyecto Piloto SITVEN (Sistema de Información de Tierras de Venezuela or Venezuelan Land Information System) performed a survey in Sector 1 of the Alcaldía of Mariño, Parroquia of Palo Negro, Municipio Libertador, Aragua State. The survey was designed to verify cadastral and registry data. It was hypothesized that all properties would be registered, since this is an affluent, urban area. Still, a certain level of informality was found. From a sample of 422 urban lots (two of which were lots owned by the municipality itself), 32 lacked any registry information at all—about 13% (87% had at least some information recorded in the Registry).²

Beneficiaries of rural land reform in Venezuela participated to a much lower degree in the Public Registry, compared both with their affluent urban neighbors and with agrarian reform beneficiaries in other Latin American countries. And even for those few agrarian reform beneficiaries who are successful in the titling process, substantial questions remain about the accuracy of the data recorded and consequent legal uncertainties.

Conclusion and Recommendations

The cadastral and registry review in Venezuela demonstrated:

1. flawed data collection,
2. inadequate data maintenance,
3. a lack of standards and technical specifications for producing cadastral information and carrying out the cadastre,
4. poor supervision of those contracted to gather information, and
5. a lack of training and professional qualifications within the ONC.

It is clear from these serious, systemic inadequacies that Venezuela does not have the option of simply converting data into a more contemporary format. Original data collection and verification will be required.

To date, the Government of Venezuela has made no serious attempt to create a comprehensive, reliable, national cadastre and titling system. Future efforts should seek to correct the stated

² Personal interview by Steven Hendrix with Celio Padilla (Manger, SITVEN Project), and Alejandro Mateos (GIS Chief, SITVEN Project), Maracay, Venezuela (October 26, 1993). We collected the data for this calculation from the SITVEN database.

inadequacies of the present system. Further, cadastral development should be based on a standard project methodology and be made a top government priority. Otherwise, on past experience, we may expect continued failure.

The Venezuelan results are a warning to foreign aid donors that cadastre and registry modernization projects may be more complex than originally anticipated. Careful evaluation of existing data and use of a standard methodology should provide an accurate picture of the complexity and anticipated cost of modernization. Moreover, the Venezuelan experience underscores the need for original data integrity in any proposed modernization of a land information system. It demonstrates once again that computers and GIS technology are not substitutes for good management and land records management practice.

Acknowledgments

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Appendix

RELEVANT LEGISLATION

- Ley de Registro Público y sus Reglamentos. Gaceta Oficial No. 2.209 (extraordinario), April 4, 1978.
- Ley de Tierras Baldías y Ejidos, August 19, 1936; Reglamento de Catastro de Tierras Baldías, August 21, 1936.
- Proyecto de la Ley Orgánica de Catastro Nacional, Comisión Permanente de Agricultura y Política Agraria, Cámara de Diputados, Congreso de la República, "Exposición de Motivos y Proyecto de 'Ley Orgánica de Catastro Nacional,'" December 4, 1991.
- Proyecto de "Ley de Cartografía Nacional y Catastro," Informe de la Comisión Permanente de Agricultura y Política Agraria en Relación al Proyecto de "Ley de Catastro Nacional" a los Efectos de su Segunda Discusión, que incluye el proyecto de "Ley de Cartografía Nacional y Catastro," October 21, 1993.
- Proyecto de "Ley de Reforma de la Ley de Registro Público," Dip. Luis Guevara, Cámara de Diputados, Exposición de Motivos y Proyecto de Ley de Reforma Parcial de la "Ley de Registro Público," May 12, 1993. ■