# Land Administration of Communal Land: Lessons from the Ejidos in Mexico

#### Grenville BARNES, USA

Key words: communal, Mexico, land administration

#### SUMMARY

Mexico has led the way in Latin America, both in terms of land reform as well as in developing extensive land governance institutions over indigenous and other community held land. It has a long history of formally titling communities and by 1992 more than half of the land area of Mexico, and approximately 80% of the country's forest resources, was covered by communal land holdings known as ejidos. This experience and how land administration institutions have been adapted over time is of particular relevance to countries, such as those in sub-Saharan Africa, which are trying to formalize customary land administration and strike a balance between statutory and customary processes.

Ejidos are recognized as legal entities and are registered in a special registry known as the National Agrarian Registry or RAN. There is a uniform governance structure within all ejidos in Mexico and governance rules controlling how natural resources are distributed and managed are documented in internal regulations. Although private titles were given jointly in the name of the original applicants, these came with restrictions which made it illegal to alienate, subdivide or mortgage any of the land within the community. In 1992 the Mexican constitution was changed to allow communities to alienate land provided there was majority support for this amongst the ejido leaders. At that time, many scholars predicted that this option to alienate would lead to the dissolution and ultimate disappearance of the ejido. Although about 10% of ejidos had opted for this individualization by 2009, it is clear that ejido tenure is quite resilient and endures despite a policy environment that is skewed towards privatization.

The land tenure debate in Africa has for decades been dominated by the so-called 'land question' – how to deal with customary tenure within formal land governance systems that favor individual private property. For the most part this debate has been a binary one; should customary tenure be treated as communal property or should it be converted to private individual property. Ejido land tenure in Mexico, and its evolution over the past 100 years, demonstrates that individual and communal tenure can co-exist within communities that are titled in the name of the community leaders. Also of relevance to the land question is the land governance system that has been constructed to deal with ejido property rights and the linkages between the ejido registry and the public registry which handles individual property rights outside the ejido sector.

This paper describes the communal land tenure and administration system in Mexico and how it has evolved over the past century. This study is part of a broader UN-Habitat GLTN initiative on customary tenure tools.

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#### **1. HISTORICAL ORIGINS OF EJIDO LAND TENURE**

Mexico is roughly the same size as Saudi Arabia and is comprised of 31 states governed under a federal system with the federal capital located in Mexico City (see Figure 1). After Brazil, Mexico is by far the most populous country in Latin America. The indigenous population is, surprisingly, the largest in Latin America with several well-known indigenous groups (e.g. Maya, Aztecs, Zapotecs). According to the 2010 population census an estimated 6% of the population speaks an indigenous language.<sup>1</sup> Today the country's population is largely derived from a mix (mestizo) of indigenous and Spanish ancestry.

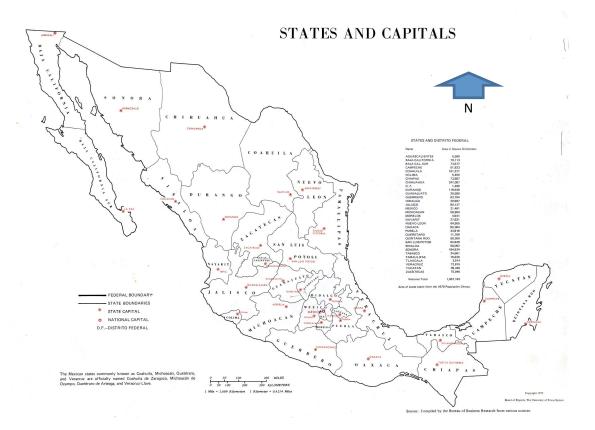


Figure 1. Map of States and State Capitals of Mexico

<sup>&</sup>lt;sup>1</sup> <u>http://www3.inegi.org.mx/sistemas/TabuladosBasicos/Default.aspx?c=27302&s=est</u>

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The communal land units owned by communities in Mexico are known as *ejidos* or *bienes comunales* (I will use the term ejido in the remainder of the paper to cover both of these types of communities). This term came across with the Spanish and was first used in colonial Mexico to designate expansion areas surrounding villages (McBride, 1923). However, the current meaning of ejido emanated from the Mexican Revolution (1910 -1917). The revolutionary cry of *"tierra y libertad"* (land and liberty) is evidence of how central land reform was in the fight for liberty at that time. The revolution led to a reform to the constitution, most notably Article 27,<sup>2</sup> which explicitly recognized community based land tenure and forbade commercial manufacturing, mining, or petroleum companies from "acquiring, holding or administering rural properties." This marked a complete reversal of the land policy pursued during the preceding *Porfiriato* era, named for the 34 year rule (1880 to 1915) of Porfirio Diaz. Diaz' land policies had led to an extreme consolidation of rural land in the hands of a small elite. The revolution sought to reverse these discriminatory policies via a land reform that would return much of the land back to the indigenous and small farmer (campesino) population.

The land reform recognized the 'social function' of land. This meant that land owners had a social obligation to use their land productively or else it would be reverted to the state for redistribution. The notion of land having a 'social function' subsequently spread throughout Latin America and provided the legal rationale for much of the subsequent land reform policy in the region. It also signaled a shift from viewing property as "an inviolable right of the individual against the state" to the recognition that land and land tenure could be used as a tool for furthering government policy (Ankersen and Ruppert, 2006, p. 72). Throughout the 20th century, but particularly during the Cardenas presidency (1934–1940), land was increasingly transferred to communities of indigenous or small farmers under ejido tenure (Klooster, 2003). By the end of the 20<sup>th</sup> century ejido land covered approximately 105 million hectares, or 52% of the total land area of Mexico (roughly equivalent to the combined area of Zimbabwe and Mozambique) and the number of ejidos had increased to over 30,000.<sup>3</sup>

In the late 1980s hyperinflation exceeding 150% and a series of economic problems led to what some scholars have regarded as "the most significant financial reform" of Mexico's history (Correa, 2006, p. 167). The ensuing structural adjustment effectively halted the growth of ejido tenure and instead promoted the concept of private, individual property that was more in line with the neo-liberal policies that were favored at that time.

#### 2. NEO-LIBERAL REFORMS

In the midst of the North American Free Trade Agreement (NAFTA) negotiations, Mexican president Carlos Salinas introduced major reforms to the legal framework pertaining to ejidos. The direction of these reforms was clearly influenced by the neo-liberal philosophy of NAFTA and in justifying the reforms Salinas pointed to: (a) the lack of marketability of ejido land which made it difficult for a new generation of farmers to gain access to this land; (b) the difficulty

<sup>&</sup>lt;sup>2</sup> English translation on-line at http://www.ilstu.edu/class/hist263/docs/1917const.html

<sup>&</sup>lt;sup>3</sup> Ejidal Census of 2000 http://www.inegi.gob.mx/est/default.asp?c=5186

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faced by local governments in acquiring ejido land for urban expansion, thereby encouraging the development of informal settlements; and (c) the lack of capital investment in ejidos due to the legal and administrative restrictions on ejidos, making it unsustainable (World Bank, 2001).

To address these and other economic problems in Mexico, Salinas lifted the fundamental legal restrictions on ejidos by rewriting Article 27 of the Constitution and passing a new Agrarian Law in 1992. These legal reforms permitted ejidos to enter into joint ventures with outsiders. They also permitted individual agricultural and residential lots, once certified, to be sold to other members or leased to outsiders. Finally, they empowered ejidos to change their tenure regime to private property (*dominio pleno*) provided two thirds of the ejidatarios voted in favor of the conversion. Once privatized, these parcels could be sold to outsiders.

This constitutional change also removed the power of the President to grant land and shifted agrarian justice issues from the executive to agrarian tribunals. This signaled the end of the agrarian reform era and the focus shifted from land distribution to land regularization—clarifying, measuring and certifying existing rights. To implement this new land policy, a nationwide land certification (not titling) program, known as PROCEDE, was launched to regularize land tenure in the ejido sector and issue certificates of ejido rights to individual ejidatarios.

By August 2006, PROCEDE had issued approximately 9.2 million certificates covering 93% of all ejidos (Escobar, 2006). Although participation in PROCEDE was voluntary, certification is a legal prerequisite for conversion to private property and it was expected that many ejidatarios would exercise this option. The wholesale conversion of ejido to private property, as was feared by some observers (Cornelius and Myhre, 1998), has not taken place for a number of intertwined and complex reasons (see Barsimantov 2010; DiGiano 2011). To better understand the internal land administration of an ejido and the evolving situation in these communities, I will examine ejido membership, its governance structure and land/resource rights.

### **3. EJIDO MEMBERSHIP**

Ejidos vary considerably across the different regions of Mexico (Haenn 2006) and it is difficult to generalize given this heterogeneity. The description that follows is drawn from field visits to ejidos in three distinct regions (Sierra Nevada,<sup>4</sup> Quintana Roo and Oaxaca) as well as extensive literature research covering these and other regions of the country.

But just focusing on *ejidatarios* does not tell the full story of land tenure and land use on an ejido. Other stakeholders in the ejido include community residents (*avecindados*) and/or possessors (*posesionarios*), who may be working the land through a formal or informal agreement with an *ejidatario*. Even though these residents and possessors live and work in the ejido, they have no voting rights and are not regarded as *ejidatarios*.

<sup>&</sup>lt;sup>4</sup> This area lies about 100 km due east of Mexico City in the states of Mexico, Morelos and Puebla.

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### 4. INTERNAL EJIDO GOVERNANCE STRUCTURE

The Agrarian Law (Art. 9) states that ejidos are legal entities (*personalidad jurídica*) and owners (*propietarios*) of whatever land they have formally acquired through a state land grant (*dotación*) or any other means. Three primary bodies are responsible for governing the ejido—the General Assembly (*Asemblea*), the Commissariat (*Comisariado*) and the Supervisory Council (*Consejo de Vigilancia*). The General Assembly, comprised of all ejidatarios, is the ultimate authority in the ejido and decisions within this forum are made by majority vote.

The Commissariat is the executive arm of the community, responsible for implementing agreements made by the Assembly as well as for general administration of the ejido. It is comprised of a President, Secretary and Treasurer who are elected for a period of 3 years.

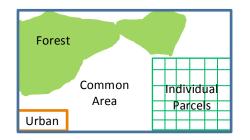
The Supervisory Council acts as a "watchdog" and ensures, for example, that the decisions taken at the General Assembly are consistent with the law and internal regulations. Individual ejidos create their own internal rules with respect to the governance of land and resource rights. These rules are generally formalized in an internal regulation (*reglamento interno*) once they have been ratified by the Assembly. The adherence to these internal regulations appears to vary across different ejidos and is usually stronger immediately after their formation.

#### **5. LAND TENURE WITHIN AN EJIDO**

Ejidos are neither individual nor truly communal. They generally have three distinct tenure regimes (see Figure 2): (a) an urban zone with individual house lots (*solares*); (b) a common use areas (mainly forest or pasture); (c) individual agricultural parcels (*parcelas*). I will describe the land tenure system by examining the rules with respect to acquiring, transferring and extinguishing property rights.

#### 5.1 Acquisition of land rights

New ejido members may obtain land rights and accompanying status as an ejidatario through (a) inheritance, (b) cession or direct transfer, (c) purchase from another member, or (d) leasing agreements. The Constitution (Art. 27 (VII)) prohibits any ejidatario from acquiring rights to more than 5% of the total area of the ejido, but it is unclear if there is any enforcement of this restriction.



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#### 5.2 Inheritance

Inheritance is the predominant mechanism for acquiring ejido rights (Borquez and Quintana, 2001), particularly for female *ejidatarias*. In the case of intestate succession, the Agrarian Law (Art. 18) lists the following order of succession: (a) wife or concubine; (b) child or family member (*preferente*); (c) if no family members, or if family cannot reach agreement after 3 months, land is auctioned off. Inheritance practices vary regionally with those in the north choosing equally between spouse and son, while in central and southern states they favor the eldest son (Deere and Leon, 2001). The belief that the number of *ejidatarios* cannot exceed the number stated on the original grant often prevents partible inheritance and the subdivision of parcels into *minifundios* that are too small to support a family.

#### 5.3 Sales and transfers

Legally, *ejidatarios* may only sell full rights to their agricultural parcels to other *ejidatarios* or to ejido residents (*avecindados*) (Art. 80). However, *ejidatarios* may 'cede' their 'use or usufruct rights' to third parties without Assembly permission (Art. 79). The sale of parcels to outsiders requires that they first convert their land to private property (*dominio pleno*) before entering into any sales (see subsection on conversion to private property below). In spite of these legal requirements, sales appear to be widespread.

#### **5.4 Extinction of ejido rights**

Internal regulations passed by ejidos identify several possible reasons for ejidatarios to lose their rights. These include: committing a criminal act which negatively impacts the community; damaging community natural resources; fraudulent or bad faith actions by community representatives while carrying out their duties; abandonment of land and ties to the community for more than a specified period. Migrant workers do not appear to lose their rights even when they are away for periods of up to 5 years, possibly because they retain a link to the community through sending back remittances.

The Constitution (Art. 27) makes it clear that ejido land rights may be extinguished through expropriation. Typically, this occurs when ejido land is needed for purposes of public infrastructure, tenure regularization, conservation of natural resources, or petroleum exploration. In spite of this, ejidal communities are not always willing to give up their community rights via expropriation and on occasion have taken to the streets with their machetes to prevent this (Ross, 2002). However, numerous ejidos have disappeared under the bricks and mortar of urban expansion, especially around Mexico City.

The 1992 Agrarian Law also made it possible for land rights to be extinguished and acquired by others through prescription or adverse possession (*uso capeon*). For possession in good faith, the

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claimant must possess the land in a peaceful, continuous and public manner for a period of at least 5 years (Art. 48). For other cases, a period of 10 years is required. While this is accepted law, there is no data on the frequency or extent of prescription.

#### **5.5 Conversion to Private Property**

Under the 1992 reforms an ejido may legally change its tenure regime to private property (*dominio pleno*) within certain defined parameters outlined in Article 29 of the Law.

Prior to terminating the obligations associated with an ejido, ejidal lands, with the <u>exception of the area necessary for human settlement</u>, will be assigned in full private ownership to the corresponding ejidatarios, <u>except in the case of forests (bosques) or tropical forests</u> <u>(selvas tropicales)</u>. The area of land assigned through this means to each ejidatario cannot extend beyond the limits specified for small properties (pequeňa propiedad). If after the land is assigned, the area limit is exceeded or it incorporates forests or tropical forests, it will become the property of the Nation. [my emphasis]

The Agrarian Law also states that only agricultural parcels may be privatized and then sold to outsiders. Common use land may only be "transmitted" to outside companies for purposes of developing projects with the ejido (Art. 75). The law is unclear on the status of common use land once an ejido forms an association with an outside company. The law stipulates that "dominio" can be transmitted but it appears from a broader reading of the law that this does not imply full ownership, but rather a form of usufruct. None of our case studies thus far have been able to investigate the de facto situation with respect to these kinds of transactions.

The first step towards privatization involves boundary surveying and certification through PROCEDE. Even though PROCEDE has certified more than 90% of the ejidos in the country, it was estimated in 2005 that only 5.3% of all ejidos had taken the next step to acquire *dominio pleno*, most of these being urban ejidos (Rodríguez, 2005). The geographic distribution of ejidos that have completed certification indicates that it is most popular in the northeast and northwest regions of the country. Based on October 2005 statistics, the southern Pacific states of Chiapas, Oaxaca and Guerrero all had fewer than 51% of ejidos certified. More recent statistics released by the National Agrarian Registry (RAN)<sup>5</sup> indicate that the number of ejidos that have converted to *dominio pleno* or developed a relationship with a commercial company is approaching 10% of the total number of ejidos nationally. When these figures are analyzed regionally, the northern (11.5%) and central (9.6%) regions are much closer to this national figure than the southern region<sup>6</sup> where only 3.7% of ejidos have converted.

#### 5.6 Secondary Rights

<sup>&</sup>lt;sup>5</sup> http://www.ran.gob.mx/servicios/ran informacion-estadistica.html

<sup>&</sup>lt;sup>6</sup> This includes the states of Campeche, Chiapas, Oaxaca, Quintana Roo, Tabasco and Yucatan.

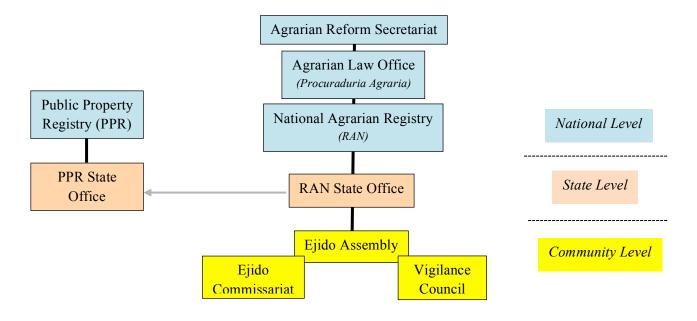
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Several studies reveal that land rentals within ejidos were commonplace, both before the 1992 reforms and afterwards (Brunt, 1992; Borquez and Quintana, 2001; World Bank, 2001; Bresciani, 2004). Land rentals allow agricultural land to remain productive even when labor shortages prevent the legal landholder from using the land directly. Furthermore, older *ejidatarios*, especially widows and single women, who cannot work the land themselves, are able to derive some income from the land while still remaining a member of the community. It also presents a viable alternative to selling out in times of emergencies even though renting provides a lower short-term economic return. Land rental arrangements include fixed rental (*renta*), sharecropping (*aparcería, mediería*) and land loans (*préstamo*) (Hollinger and Torroja, 2005). Land loans are most common between older *ejidatarios* and younger residents who are not members of the ejido and typically involve loans for a single cropping season. Interestingly, almost half of the land rentals involved parties from outside the ejido, which included private farmers (23%), ejidatarios in other ejidos (13%), and external companies (7%) (Hollinger and Torroja, 2005, p. 19).

### 6. EJIDO LAND REGISTRATION SYSTEM

Certificates to ejido parcels and urban lots are registered in a special registry known as the National Agrarian Registry (RAN). RAN operates in parallel with the Public Property Registry (Registro Publico de la Propiedad - RPP), the registry that is used for all private property and transactions not involving ejidal land. If an ejido elects to privatize, the land records must be transferred from the RAN to the RPP. The remainder of this section will deal with the structure and operation of the RAN.

The RAN was first set up through a decree passed in 1928 and has frequently been restructured until finally in 1997 it was placed under the Agrarian Reform Secretariat.



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#### Figure 3. Dual Land Registration Structure

The original land titles which conveyed property rights to ejidos and indigenous communities plus all other land transaction within an ejido are recorded in the RAN. It is important to distinguish between the documents and bundle of rights that are conveyed by documents registered in the RAN versus the RPP. While the RPP registers property titles, the RAN generally only registers land certificates associated with ejidos. The RAN also records the internal regulations of each ejido. According to information from the RAN, the most frequent transactions are: designating who will inherit ejido rights, processing inheritances, transferring ejido rights via inheritance, and legalizing other transactions.<sup>7</sup>

### 7. LAND MARKET

Numerous case studies have been carried out to assess how the 1992 reforms and PROCEDE have impacted the land market and ultimately the distribution of land in ejidos. Because many transactions do not comply with the law, they are regarded as *de facto* transaction despite the recognition by the ejido Assembly. A 2001 World Bank study analyzed the land market following the 1992 reforms and concluded that "there is evidence that since the reform land purchases have *decreased* irrespective of the tenure status."(World Bank, 2001, p. 44). They pointed to the removal of government subsidies and trade liberalization through NAFTA as the key causes of the drop off in the land market. The primary motive for sales according to another study (Borquez and Quintana, 2001) is to pay for family health emergencies. In another study that compared the same households in 1994 and 1997, they found that during this 3-year period only 8% of *ejidatarios* had either sold or bought land (Hollinger and Torroja, 2005). Analyzing market data prior to the 1992 reforms is problematic because it was not legally recognized. Statistics from the 2001 ejido census showed that 63% of all ejidos in the country reported sales of ejido land, and of these more than half (58%) were sales to outsiders.<sup>8</sup>

A study of an indigenous ejido in Veracruz state (Flores 2011) found an increase in sales in anticipation of PROCEDE and a slowing down in transactions once the certification process had been completed. An analysis of the 2007 Ejido Census (Robles 2013) showed that two thirds of ejidos reported land transactions ("circulación de la tierra"), of which 82% were between members of the same ejido. However, 54% of the total transactions involved persons outside the ejido. Clearly, factors driving land markets are far more complex than simply providing landholders with a negotiable document.

<sup>&</sup>lt;sup>7</sup> <u>http://html.rincondelvago.com/enajenacion-de-tierras-ejidales-en-mexico.html</u>

<sup>&</sup>lt;sup>8</sup> http://www.inegi.gob.mx/est/contenidos/espanol/tematicos/mediano/med.asp?t=ceji12&c=5198

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### 8. GENERATIONAL CHANGES

The *ejidatario* population is elderly. Data from the 2001 national ejido census showed that 28% of *ejidatarios* (male and female) were over the age of 65. In comparison, only 10% of possessors, 9% of residents (*avecindados*), and 5% of the national population were over 65. Part of this difference is due to urban/rural age biases since the demographics of private farmers show an age structure similar to that of *ejidatario* (see Table 1). Another worrying trend has been the loss of young people (*jovenes*) to either urban areas or through emigration to the US. The 2007 Ejido Census estimated that in 13000 ejidos the majority of young people were living elsewhere, 26% in urban areas and 68% in the United States.<sup>9</sup> It is clear that the next generation will likely settle and work elsewhere, raising serious questions as to who will continue to work the land on ejidos and even whether ejidos are resilient enough to make this generational transition (Barnes 2009).

Membership in ejidos is usually strictly controlled to the extent that it has become difficult for a new generation of members living and working in the community to gain membership as official ejido members (*ejiditarios*). Some ejidos regard the number of members as fixed at the number listed in the original ejido title and ejidatarios may only cede or will their land to a single individual.

## 9. PARTICIPATION IN EJIDO GOVERNANCE

Participation in general assemblies in most of the communities visited in the Sierra Nevada region was extremely low (less than 50%), possibly lower than a legal quorum for certain decisions. A quorum is defined as "a half plus one" ejidatarios for decisions relating to conversion to private property and major land use decisions (Art. 23). As in most parts of the world, power inequities within ejidos have both negative social and ecological effects. In a study of an ejido in the northern state of Chihuahua, Perez-Cirera and Lovett (2006, p. ) found that "... with increasing power inequalities within the group, authority power is transformed into higher rates of both illegal logging and forest degradation as well as to more inequitable distributions of income."

### **10. COMMUNAL VERSUS INDIVIDUAL**

Across all ejidos in the country, 'common use' areas cover twice as much land area as individual agricultural parcels. The distribution of tenure regimes within ejidos has evolved with the increased pressure on land so that today some ejidos are completely divided into parcels, some lack a designated urban zone, and some comprise only common use areas. Nationwide, some 30% of certified communities – those that have completed the certification process through PROCEDE – are completely parcelized, while 7% contain only common use areas. The distribution of land use on certified common areas is dominated by cattle farming (60%),

<sup>&</sup>lt;sup>9</sup> http://www3.inegi.org.mx/sistemas/tabuladosbasicos/default.aspx?c=15687&s=est

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followed by agriculture (15%), mixed cattle and crop farming (11%), and forest (10%) (Perez Martin, 2004). This suggests that cattle farming, as opposed to forestry, is the primary communal land use. However, these figures only consider certified land and therefore do not represent many ejidos in the forested states of Oaxaca and Chiapas which have largely rejected certification.<sup>10</sup>

Ejidos have responded differently to the legal reforms, with the result that a continuum of tenure situations is encountered today ranging from highly communal to completely individual. In a study of 27 ejidos in the state of Quintana Roo, DiGiano (2011) found that ethnicity was a key factor in shaping responses to the reforms, whereas gender, age and forest dependency surprisingly did not explain different attitudes towards land tenure and privatization. In the state of Veracruz, Gracia (2008) reported that 106 ejidos had elected to convert to private individual property between 1992 and 2006.

Characteristic	Ejido	Private	Characteristic	Ejido	Private
Average age (yrs)	55.5	56	% agriculture as main activity	88.7	84.1
Average area (ha) worked	6.6	11.9	% Difficult to access credit	22.7	20.0
Area (ha) irrigated	14.6	20.4	% Government assistance	9.7	7.1
Mechanized Agriculture only (%)	31	26	% Speak indigenous language	27.6	24.6
% Sell internationally	0.1	0.1	% No formal education	38.1	37
% Sell locally, regionally or nationally	60.2	55.7	% Piped water	77.7	75.6
% with credit and insurance (seguro)	4.6	2.8	% Electricity	93.4	93.3

 Table 1. Comparison of Characteristics of Ejido versus Private Property

Source: Robles (2013) drawing on data from the INEGI 2007Agricultural Census

### **11. GENDER BIASES**

Ejido membership has been dominated by males, although this has changed since the initial creation of ejidos. Deere and Leon (2001, p. 72) cite a jump from 1.3% to 15% female membership in ejidos between 1970 and 1984. This was largely due to an increase in the number of elderly widows who inherited their spouses' ejido rights. In the census of 2000, female membership averaged 16% with a wide variation between states, ranging from a low of 3% (Yucatan) to a high of 37% (Federal District).<sup>11</sup> In the 2007 census the percentage of female ejidatarias had increased to 19.8% of the total number of ejidatarios nationally.<sup>12</sup> There are distinct regional patterns to this variation, with the Pacific coastal states generally having higher female representation.

<sup>&</sup>lt;sup>10</sup> PROCEDE data for 2005 indicated that Oaxaca (34%) and Chiapas (36%) had the lowest % of ejido land certified (source: DGAOPR de la Procuraduría Agraria).

 <sup>&</sup>lt;sup>11</sup> http://www.inegi.gob.mx/est/contenidos/espanol/tematicos/mediano/med.asp?t=ceji02&c=5188
 <sup>12</sup> http://www3.inegi.org.mx/sistemas/tabuladosbasicos/default.aspx?c=15687&s=est

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#### **12. LESSONS AND CONCLUSIONS**

The ejido land tenure system in Mexico demonstrates that it is not necessary to view land tenure as either private individual or communal. Both of these types of tenure co-exist within ejidos in Mexico and have done so for more than 70 years in most cases. What can be observed, however, is that land use is a powerful determinant of whether land will be treated individually or communally. Agriculture and urban lots are typically allocated on an individual basis, whereas common pool resources (Ostrom 1990) are generally retained in communal tenure. These include rights to forests, pasture land and water. Managing and protecting these resources is most rationally done by the community because of the high cost of exclusion and the low subtractability (one person's use of the resource does not significantly reduce what is available to others) of the resource (Ostrom et al 1995). Some of the most successful ejidos have extensive forest resources and have managed to engage the community in collective action to manage these resources both profitably and sustainably.

The legal framework underlying the ejido system recognizes that this tenure system will change through time and consequently provides mechanisms for converting ejido land tenure into private individual tenure, provided the majority of the community leaders elect to do so. The dual land registration system is designed to cater for these two tenure systems. However, it is clear from various studies that there is an active land market in the majority of ejidos and this is taking place outside of the two registry systems. In many instances these transactions pass through the ejido Assembly and are documented by them. This actually represents a third level of land registration and should be recognized as such.

But drawing broad conclusions about a diverse ejido system can also be misleading. There are clearly regional differences in ejidos, in terms of their natural resource base, governance effectiveness, ethnicity, livelihood options, and attitudes towards land tenure. Depending on their location and other factors, ejidos are also subject to different external pressures (e.g. urbanization, tourism), although NAFTA seems to have had an overall negative effect on ejidos as small farmers have been unable to compete with cheap imports from the US (Yuňez and Paredes 2006).

Through UN-Habitat/GLTN we will conduct further research through selected case studies. We are particularly interested in the use and users of registry data within the RAN but also of the information maintained in local records kept by ejido authorities.

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