

Elasticity Between the Cadastre and Land Tenure: Balancing Civil and Political Society Interests in Poland

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ABSTRACT

The cadastre provides formal instruments for governments to administer land, theoretically assuring critical space and resources for economic activities in Western societies. The informal organization of access and control of land in any society, conducted often in parallel to the formal cadastre, is known as land tenure. The cadastre records land ownership and rights to land. It is also an important means for coordinating land governance, private activities, and public concerns related to land. The ongoing challenges for government use of the cadastre are largely administrative and political, no longer technical. In the case examined here of Poland, a country undergoing rapid post-Socialist socio-economic change, the challenges are evident in rural discrepancies between the cadastre and land tenure. They reflect historical tensions between colonizing formal government institutions and informal resistance institutions developed to allocate access and control of land for most of the past 300 years in Poland. During this period Polish political and civil society has worked out a number of complex delegations of control and authority to regulate these discrepancies and provide for a flexible balance between competing and conflicting interests. Much rural land ownership was secured through an array of informal arrangements involving actors with overlapping and conflicting interests. The formal cadastre, in these cases, is often reduced to a self-referential institution solely for use by government agencies. Verdery's concept of "elasticity" aids in understanding how discrepancies between cadastre and land tenure have been traditionally resolved in relations between Polish political and civil society. The current transformation of Poland to a capitalist economy beginning in 1989 is altering various aspects of these arrangements. Recent entry (May, 2004) into the European Union has additionally greatly accelerated the process of change. Based on literature analysis and the preliminary analysis of the different roles the cadastre plays in three Polish counties (*powiat*), the article presents some ideas for conceiving of the cadastre as part of a framework for the societal allocation and the coordination of access and control to land. It argues that the elasticity between rural formal *de jure* cadastre and informal *de facto* land tenure points to problems plainly visible in rural Poland yet relevant to cadastral information infrastructures occurring around the world. © 2006 Wiley Periodicals, Inc.

Keywords: cadastre; land tenure; Poland; post-socialist transition

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1. INTRODUCTION

The cadastre has been the primary form of coordinating land ownership in Western civilization since the Roman times. Through imperialism and colonialism the cadastre has been promoted around the world as the supreme administrative technology for recording private land ownership, rights to land, and obligations of land owners and users. While primarily used for taxation by governments, the cadastre is also the means of regulating land occupation, facilitating planning, and enabling speculation related to land. This is also the case in Poland, the focus of the research presented here. In Poland, the cadastre has forced the merging of the *formal* governance of land allocation, rights, and responsibilities with *informal* distribution of access and use of land. The historical balance between civil and political society is being challenged by post-socialist transformations. Examining both the historical balance and current challenges offers to provide insight into tensions associated with cadastres and land tenure in other parts of the world.

The cadastre is one of the fundamentals of Western governance and colonization. The ancient centrality of the cadastre to Roman colonization, the continued centrality of the cadastre in Western European regulation of land access, and the export of the cadastre naturalize the cadastre to the point where it seems to be part of natural laws of any society. However, even in Europe, the cadastre is fraught with the same problem of Euro-centrist ideology in the face of sharply divergent European experiences as Dieter Senghaas' political economic studies of variable economic growth in Europe show (Senghaas, 1985). Several historical studies point to the problems of the cadastre and its uncertain development in Europe, colonized areas, and transition economies including places as varied as Sweden, Ireland, and Australia (Andrews, 1975; Kain & Baigent, 1992; Turnbull, 1998). Recent accounts of indigenous land claims adjudication in Canada and Australia underscore the contentions surrounding the cadastre's role in colonization. The major hurdle has been finding the means to bring indigenous land use uses legally on the same level as surveyed land ownership boundaries (Turnbull, 1998). In Poland from the 18th century on, the cadastre was used by colonizing and partitioning foreign powers as well as by the Polish central government for land reform and redistribution of property, for the collection of taxes and as a means for increasing capitalization and encouraging foreign investment.

The cadastre has been naturalized in thought and practice. The cadastre remains invisible to most people, but is central to government administration. This article explores how the cadastre is integrated into the societal allocation of land access and control that the government wishes to control. The Elasticity Required: Rural Cadastral Infrastructure and Land Tenure section lays out the theoretical framework for considering the broad roles of a cadastral infrastructure including key roles and tensions for the formal cadastre and informal land tenure in tensions between civil and political society. The Poland's Cadastral Infrastructure section discusses the historical background of Poland's cadastral infrastructure and current conflicts. This is followed by the Three Ways to Stretch the Cadastre section, discussing exemplary strategies in three Polish counties (*powiat*) to find flexibility to deal with tensions between the formal cadastre and informal land tenure. The Broader Implications section of the article discusses the broad implications of this research and is followed by the Conclusions section that presents key findings of this research and issues for future research.

2. ELASTICITY REQUIRED: RURAL CADASTRAL INFRASTRUCTURE AND LAND TENURE

Previous research in rural areas of Poland report up to 40% of land is not clearly recorded in a cadastre (Prosterman & Rolfes, 1999). At the same time, Polish government officials working on the cadastre stress that Poland has 100% cadastral coverage (Kozlowski, 1997). This discrepancy offers an interesting opportunity to study the activities of cadastral governance where elasticity is required. More interesting is the possibility to explore how citizens and local governments resolve the tensions on their own. Elasticity between formal and informal land tenure refers not to a single dimension, but it refers to many dimensions of tension that roughly correspond to the actors involved with local land and with an interest in how land access and control is both formally and informally regulated.

2.1 Cadastre and Land Tenure Defined

Considering how invisible the cadastre is, we should start with some definitions of the cadastre and land tenure. While a generic definition of the cadastre will state that it is a map register made for the purpose of taxation, the cadastre is more than a set of maps for calculating taxation. As Scott writes:

When [maps are] allied with state power, [they] would enable much of the reality they depicted to be remade. . . a state cadastral map. . . does not merely describe a system of land tenure; it creates such a system through its ability to give its categories the force of law. (1998)

Through colonization, the cadastral information infrastructure, the people, institutions, and technologies of the cadastre has diffused as a key instrument of governance around the world. In the same vein, Kain and Baigent (1992) conclude their historical study of cadastral mapping with salient points that highlight interactions and tensions related to the cadastral infrastructure's role in the governance of agrarian reform:

- The cadastral map is an instrument of control that reflects and consolidates the power of those who commission it.
- The cadastral map is partisan.
- The cadastral map is active. In portraying one reality it obliterates the old.
- The cadastral map can be understood as a balance of power and a balance of interest.
- The acceptance of the cadastral map as an instrument of the state was as turbulent as the struggles for power themselves. (p. 344)

Land tenure may be narrowly defined as the manner in which rights to property are held. However, this definition is not only narrow but misleading. The term 'right' often suggests that claim to land is supported by law. This may or may not be the case, however. A more comprehensive definition and discussion, provided by the FAO, reflects the multi-dimensionality of land tenure and its salience for the complex roles the cadastre takes on in formalizing civil society's arrangements.

Land tenure is the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land. . . . Land tenure is an institution, i.e., rules invented by societies to regulate behavior. Rules of tenure define how property rights to land are to be allocated within

societies. They define how access is granted to rights to use, control, and transfer land, as well as associated responsibilities and restraints. In simple terms, land tenure systems determine who can use what resources for how long, and under what conditions.

3.2 Land tenure is an important part of social, political and economic structures. It is multi-dimensional, bringing into play social, technical, economic, institutional, legal and political aspects that are often ignored but must be taken into account. Land tenure relationships may be well-defined and enforceable in a formal court of law or through customary structures in a community. Alternatively, they may be relatively poorly defined with ambiguities open to exploitation. (Food and Agricultural Organization of the United Nations (FAO), no date)

Cadastral information can and should coincide with land tenure, but a persistent 1-to-1 relationship between them is an ideal that can only be achieved at great cost. Clearly, many people make land access and control arrangements with relatives and neighbors without going through the effort to formalize them through legal contracts or government procedures. Short-term arrangements can easily become long-term status open to possible anchoring in local practice. Part of the cost arises from the complexity of information stored and maintained in a cadastre and the lag time to record changes. The cadastre generally includes information about land ownership and the boundaries of land ownership, although in many countries the two are maintained in separate registries without coordination. The cadastre can be implemented in an information technology environment following the rules and specifications defined by laws, regulations, or politics of the design process (Andrews, 1975; Lemmen & van Oosterom, 2002; van Dijk, 2003). The cadastre may lack information about changes that have yet to be entered in the system, may contain errors, and, most importantly, may fail to reflect the informal arrangements people enter into regarding uses and responsibilities for land. The resulting discrepancies can be substantial. The United Nations Center for Human Settlement (Habitat) reported in 1991 that up to 90% of parcels in developing countries lack documentary evidence of land ownership (United Nations Center for Human Settlement (Habitat), 1991). A number of areas in Europe have large discrepancies with respect to land tenure even when the cadastre is complete for an area (Kain & Baigent, 1992).

In other words, even in its ancestral European place of origin the cadastre has failed to ensure the rationality and equity of governance aspired for by Bentham and other progenitors of the Enlightenment. Still, the promotion of cadastre in its modern form is guided by these Enlightenment ideals, framed, in particular, by Bentham's notion of utility.¹ These enlightenment concepts promote the cadastre as an essential part of a country's economic foundation, guarantee of an efficient land-market, and culturally preserve individual property ownership (P. F. Dale & McLaughlin, 1999; Miron Perez, 2002). For many people this ideological role finds its expression in Hernando de Soto's understanding that government facilitation of clear and simple property registration through the cadastre lies at the heart of successful transition economies (de Soto, 2000). The cadastre is highly complex, much more than a set of functions, but a set of relationships. In this sense, the cadastre is political,

¹Utility, for Bentham, referred to the increase in happiness for an individual or group arising from the choice of action. It serves as an ethical principle. It still primarily carries this meaning, but has been extended to mean the happiness of all affected individuals or groups. It also follows an assumption that utility can be determined rationally.

a highly complex infrastructure of people, institutions, and technologies, and subject to the machinations of politicians and administrators alike at all levels of government (Buissert, 1992; Kain & Baigent, 1992; Prosterman & Rolfes, 1999; Said, 2000). To the same degree, the cadastral information infrastructure is likewise much more than data: it requires the coordination of complex infrastructure arrangements.

2.2 Beyond Functional Blinders: Cadastre as Infrastructure

The cadastre's invisibility leads to an over-emphasis on functional definitions of the cadastre that ignore or minimize the relationships to land tenure. The concept of infrastructure (Bowker & Star, 1999; Susan Leigh Star, 1999) draws together cultural, political, social, economic, and technological dimensions of the people, institutions and technologies involved in the assemblages that are integral to the many relationships between cadastre and land tenure and the requisite elasticity.

The political dimensions of an information infrastructure are important for explaining the development and use of the technology, following Markus' study of management information system (MIS) implementation (Markus, 1983).

Generally speaking, a cadastral infrastructure is a complex assemblage of administrative technology used by staff in different governmental offices for the preparation, maintenance, and sharing of cadastral information and to support legislative, regulatory, or political activities decided on by people in administrative and political positions. Depending on administrative and political allocation of decision-making responsibility, the specific form of administrative technology varies greatly but is highly complex and inherently political (Rolland & Aanestad, no date).

To understand how Polish local communities address the discrepancies between the cadastre and land tenure in terms of relationships between civil and political society, we rely on this infrastructure concept of the complex relationships between cadastre and land tenure. Local cadastral infrastructural activities involve people, technologies, and institutions as well as the relationships among all three. The local cadastral infrastructure constantly arbitrates between different interests; cadastral stretching is an everyday occurrence.

Specific activities of cadastral stretching are conceptualized with the help of the conceived boundary objects concept. Boundary objects both simultaneously connect and separate other actors (Star & Griesemer, 1989). By maintaining the flexibility of different cadastral actors and institutions involving civil and political society they play a key role in facilitating interactions among civil and political society participants. Extending the elasticity concept to the cadastral infrastructure, the flexibility of land tenure in relationship to parcels is part of the flexibility between civil and political society. Flexibility in the cadastral information infrastructure allows the two to coexist, both the stability of the formal land cadastre and arrangements of informal land tenure, but as it develops it must negotiate challenges to maintaining the existing elasticity between the cadastre and land tenure.

2.3 Elasticity of Land and Civil and Political Society

The cadastral infrastructure and its constituent boundary objects facilitate elasticity. While a paper map and surveyors legal description of property boundaries may seem to be epitomes of rational crisp logic and precision, they, in fact, permit a great deal of interpretative and situated flexibility. Katherine Verdery's anthropological work provides a starting point for

articulating the concept of cadastral elasticity (Verdery, 1994). Based on her long-term study of land restitution in Romania, Verdery suggests that land ownership is never fixed to a single set of boundaries, but it is flexible to such a degree that there is an almost unlimited elasticity between the formal cadastre and informal land tenure.

The elasticity of land that Verdery describes points to the ability of different civil and political society interests to locally reconcile differences of land occupation with political and social control (Verdery, 1994, 2003). Verdery describes the multiple boundaries, sizes, and shapes that a parcel of land could take during the process of property restitution in a rural Rumanian community: Although the parcel is always formally the “same,” she documents how it goes through startling and arbitrary changes in order to reconcile official cadastral records with changing assertions from interested parties. Verdery describes this elasticity in terms of the changing boundaries between parcels of land and between the very shapes of parcels as the process of submitting restitution claims and resolving claims goes on for years. To Verdery, there is an apparent contradiction in the ever-changing location of boundaries and shape of land parcels against the administrative rationale that accepts every claim and assesses only claims against their fit in the administration’s construction of the formal cadastre. Verdery refers to this as a fuzzy property, which “invokes the total system of social, cultural, and political relations and inquires into, rather than assuming, the nature of property conceptions” (Verdery, 1998). Private property involves routinized rules and crystallized practices that the cadastre usually formally expresses or gives access to. In Poland and Romania, as in other transition countries, the arrangements of civil society are unexpressed and unarticulated, often without representation in the formal cadastre.

Verdery focuses on restitution of completely collectivized area in Rumania. In Poland, restitution is no issue: In fact, there is still no legally coordinated restitution process for private land restitution claims in Poland. However, elasticity is a significant concept to help explain the discrepancies in Poland between formal cadastre and informal land tenure, which involve arrangements established over many generations between civil and political society. The discrepancies between cadastre and land tenure creates possibilities to allocate the control over land in a manner that takes better account of historical issues, societal changes, and local contingencies than formal procedures and regulations.

In other words, the cadastral infrastructure in Poland is by no means defunct but functions as a working status quo. A broader articulation of cadastral elasticity needs to examine the multiple understandings of the cadastre as well as the multiple roles of land tenure arrangements. The elasticity between cadastre and land tenure mitigates economic and social consequences of discrepancies for civil and political society in an endless process of re-definition and re-constitution of alliances as the institutional and political context changes.

3. POLAND’S CADASTRAL INFRASTRUCTURE

The hypothesis guiding the research in Poland is that the allocation and access to rural land are assured through informal arrangements as much as by the formal cadastre; the discrepancies have already found some form of either *de jure* or *de facto* resolution in local practice. Past and current activities to automate and enhance the accuracy of Poland’s cadastral infrastructure are one facet of these activities. At least of equal importance are local practices that maximize cadastral elasticity to meet local needs. The resolution of tensions between formal cadastre and informal land tenure was historically and remains

currently contingent—ongoing, independent, and local processes. Primary factors for this dynamic stability can be found in Poland's history as an occupied country for most of the last 300 years. This hypothesis is based on the assumption that Polish political and civil society have established and re-established a locally constituted dynamic balance that resolves tensions between the formal cadastre and informal land tenure.

3.1 Historical Contingency and Cadastral Elasticity

Lacking a detailed ethnographic study of land tenure issues in Polish rural society, this article relies on a variety of secondary literature, particularly anthropological work in African countries and rare studies addressing land tenure issues. This literature offers evidence that civil society in Poland has found ways to undermine—and at times subvert—the attempts of political society to control and tax land. The cadastre in Poland has been, since the partitions in 1759, a means of foreign control and manipulation of land rights in Poland. It was already problematized in the classical Polish novel *Placówka* by Bolesław Prus, written in the 19th century.

The narrow stripe-like parcels that characterize many of Poland's rural regions signify socio-economic relationships of civil society (see Figure 1). They bear witness to the importance of family-based farming and inheritance among family members, especially in the southeast (Stasiak, 2003). They reflect historically developed strategies of inheritance and land access and control that sought to minimize occupying government power and spread tax obligations among family members. By having narrow, but long strips of land use, the family use of land could be divided to a point of making government validation more complex, more involved, and more costly. Difficulties in finding users, who were responsible for taxes, could be used as a passive strategy to avoid government intervention (Bański, 2001; Borsig & Kriszan, 2004; Gwozdz, 2002).



Figure 1 Typical narrow fields of Southeastern Poland.

This still widespread organization of farming may have taken form in the colonialist relationships between Poles and occupiers. Following the hypothesis for this research, it also reflects tensions between Polish civil and political society. For example, Davies' historical analysis makes the point that "Political authority was perceived as an alien imposition in partitioned Poland on several counts" (2001, p. 213). This was particularly relevant for land ownership: "The disrepute of political authority was reinforced by the fact that other forms of existing authority, in the social and religious spheres, remained essentially intact. The pattern of land ownership, for example, was altered, but not overturned" (Davies, 2001, p. 215).

The partitioning and occupations of Poland from 1772 to 1918 led to considerable alterations of land access and rights. The Polish nobility that sought partitioning as a means of preserving their political and economic status would witness an erosion of their power under the colonial powers, Austria-Hungary, Germany, and Russia, a minor reversal after 1918, and a near-complete loss of land ownership following 1945. They are the most important starting point for understanding how civil society developed means to regulate access and control of land separate from the colonizers' control and manipulations of political society. The partitions and occupations during World War II play another significant role in institutionalizing the underground economy as not only a means of circumventing the occupying power's destructive and absurd regulations but also as the underpinning for all economic activities (Wyka, 1992). Because Polish people were employed by colonizing or occupying countries, many people, especially peasants, were alienated from authority and political society. Further, the chaos and loss of life during the last war and the period thereafter led to tumultuous movements and displacement of people, with much land left without an owner, or an owner who had fled abroad in fear of repercussions. Even if their employment required the execution of government regulations, generations of Poles had been conditioned to deride political authority. The ingrained strategies continued during the Socialist era as a means of resisting and circumventing political power. The informal land tenure arrangements established by civil society became the basis of a status-quo between cadastre and land tenure; the degree of discrepancy may serve as a good indicator of the tensions between civil and political society.

The unabated significance of the Polish peasantry is another indicator of the significance of civil society. Agrarian reforms have been limited. After the Polish Republic was founded in 1918, land reforms conducted until 1939 had limited effects overall, although specific re-appropriations had sizeable impacts (Blobaum, 1995). Post-World War II agrarian reforms had far more profound consequences; however, the greatest impacts were mostly limited to previously German-held areas. Continued tensions between the government and civil society in Poland have been studied by numerous researchers (Franzke, Strohbach, & Tragl, 2003; Grzmala-Busse, 2003; Innes, 2002; Palmer, Munro-Faure, & Rembold, 2003; Regulski, Georg, Jensen, & Needham, 1988; Sagan & Lee, 2004; Zaborowska, 2001). Recent studies of civil society in Poland only offer limited discussion of land related issues (Buchowski, 1996; Hann, 1985; Kurczewski, 2003), Sikorski's discussion of personal experiences exempted (Sikorski, 1997).

These historical developments vary from region to region in Poland but have profound impacts on the discrepancies between cadastre and land tenure. In most areas of Poland during the Socialist period from 1944–1989, private farmers, even with government policies working against them, were economically and culturally significant. Many policies can be noted, but it seems especially significant that in the 1980s the Socialist government had already undertaken a number of measures to help private farmers (Borsig & Kriszan,

2004). This points to the importance of peasant strategies to avoid political society's controls. Because of these strategies it was possible to keep people fed during occupations and wars through the informal economy (Wyka, 1992). Informal land tenure was essential to the informal economy. Following Janine Wedel, the informal economy, tolerated if not condoned, kept the country economically afloat in the worst times of Nazi occupation and Socialist mismanagement (Wedel, 1992). Civil society's division from political society was strengthened in the process. It still does support key aspects of many individuals' economic lives. Unfortunately, English and Polish literature fails to directly engage the question of informal land tenure in Poland, but drawing on Wedel's research, Polish publications, and current indicators, it seems plausible that informal land tenure offers rural dwellers much needed flexibility to deal with exigencies in life, craft flexible material production to maximize the value of their work, and minimize government intervention. Social circles (Buchowski, 1996; Gorlach & Seręga, 1995; Wedel, 1992) remain significant for the informal allocation of land resources. For example, the dissertation of Salameh underscores the importance of civil society for the economy of one rural *gmina* studied between 1989 and 1983 (Salameh, 1997).

The tension between civil and political society is also present in the arbitrary nature of the administration of the cadastre and political influence on the access to land. Arising from the dilemma of serving political power on one hand in an administrative position, and on the other sensing a civil society responsibility to resist political power, Polish government staff, deciding over a Byzantine system of laws and regulations, have enormous individual power to apply and interpret their mandates. As Wedel writes, this contributes to the creation of a shadow economy, which at times has become the sole means of avoiding the complete decay of the state (Wedel, 1992).

3.2 Post-Socialist Change and Cadastral Elasticity

The past developments in Poland are exacerbated by recent post-Socialist change. Arguably, Poland exemplifies the problems befalling the cadastre in transitional economies of Central and Eastern Europe and elsewhere (Csaki & Lerman, 2001; P. Dale & Baldwin, 2000; Lerman, 2000; Prosterman & Rolfes Jr., 2000; Swinnen, 1999b). Indeed, by many statistical measures, Poland's situation makes it stand out as an exemplar of transition, fully embracing a post-Socialist liberalization of the economy. At the same time, its agriculture is considered among the most outmoded in Europe—small parcels and horse power are still common in contrast to other Central and Eastern European countries as well as strong significance of the agricultural sector (see Table 1). After regaining independence in 1918, Poland remained a largely agriculturally orientated economy until long after World War II. Currently, the Polish economy is dominated by industries and services, although the majority of land is still under agricultural use. It is seen, by most macro-economic measures, as having the greatest economic development potential of the ten new European Union (EU) members, which joined on May 30, 2004 (Ingham & Ingham, 2002), especially in the agricultural rural areas. However, issues of land ownership and land rights, which have been widely recognized as one of the chief impairments for Poland's economic transition (Swinnen, 1999a), point to handicaps arising from discrepancies between the cadastre and land tenure in rural areas in Poland.

The post-Socialist transition in Poland is atypical for the region and more similar to economic transitions in so-called developing countries. In terms of the post-World War II

TABLE 1. Participation in Farming

Country	Rural population '000	Persons engaged in agriculture '000	Number of farms	Subsistence farms %	Persons performing additional activities	Rural unemployment %
Czech Rep.	3,610	760	26,900	NA	120,000	(5)
Slovakia	2,255	580	8,900	NA	115,000	15
Hungary	3,690	1,900	1,200,000	80	250,000	14
Slovenia	736	350	156,700	10	180,000	8
Poland	14,700	8,800	2,048,000	60	480,000	40
Romania	9,490	2,750	3,190,000	75–90	275,000	35

Note. From Table 3, <http://www.nri.org/rnfe/pub/papers/2630.pdf>

Socialist-led collectivization, it is perhaps the most atypical among Central and Eastern European countries. Roughly only 25% of Poland's total area (312,685 square kilometers) was collectivized during the Socialist era from 1944 to 1989. The collectivized areas were, however, regionally concentrated in Northeast, Northwest, and Southeast. Even in these areas the cadastre was maintained, although rural collectives often had specially prepared cadastral documents. The legal cadastre documents of the Socialist era often were the basis for developing the new cadastre after 1989.

Other significant issues point to the centrality of rural land ownership issues to Polish and Central and Eastern European developments of cadastral information infrastructures. Restitution of land seized or expropriated during and after World War II has been the focus of many discussions yet often remains an unresolved issue (Blacksell & Born, 2002). It becomes exceedingly complex in Poland because of changed national boundaries and mass movements of people following World War II. The unresolved restitution issue, particularly relevant in urban areas, constitutes an impairment to economic development that until now has only been partially addressed (Blacksell & Born, 2002). It also hangs metaphorically as a distant cloud over rural areas but lacks any immediacy for most people, except on a case-by-case basis. More importantly, as long as Poland lacks a restitution law to regulate the return of private property seized or expropriated before, during, or after the Second World War, the ambiguity arising over a potential return of land causes anxiety and tempers many people's desire for improvement of the land and buildings they live in or use. It is important to note that a law has been passed for the return of property belonging to religious organizations; however, the process has been slow and subject to criticisms of foot-dragging on the side of the Polish administration (Blacksell & Born).

3.3 The Polish Cadastral Information Infrastructure

To meet European Union (EU) membership criteria, Poland—along with the other new member states—has embarked on programs to accelerate the automatization of their cadastral infrastructure. Polish national government agencies and some larger regional agencies are now actively working on creating a Spatial Data Infrastructure (SDI), in which cadastral data play a key role. EU-led programs to establish a European SDI through the INfrast-structure for SPatial InfoRMation in Europe (INSPIRE) program have been a key catalyst. Poland's 100% cadastral coverage suggests a good starting point for collaboration with the EU and to support the liberalized Polish economy's integration in the EU.

The Polish cadastral information infrastructure under development has run into the similar national political resistance, as have post-Socialist attempts to replace the cadastral and cartography laws (Albin, 2003; Knoop & Wilkowski, 2003; Miron Perez, 2002). Rural political groups and interests have effectively blocked private land restitution laws and reform of the cadastre in parliamentary committee. The issues for the dynamic stabilization of cadastre and land tenure by political and civil society require an engagement with the importance of informal settlements of local land tenure issues by civil society and the enforcement of rational control by political society.

The current Polish cadastral infrastructure is supported by three separate registries (see Figure 2). Each registry supports a different legal function: (a) the registry of buildings and ground is under the control of the Ministry for Infrastructure; (b) the “Perpetual Book” registry is under control of the Ministry for Justice; and (c) the property tax registry is under control of the Ministry for Finance. The three responsible ministries do not coordinate or share information among the registries; in fact, they each deploy different organizational hierarchies and technologies (Harvey, 2005). Despite a plethora of studies to integrate the registries and successful pilot studies (Albin, 2003), only some integration of the disparate registries seems to be taking place.

For most people, the most significant of the three registries is the land registry (see Figure 3). This registry is under the control of the Ministry for Infrastructure, Office of the Surveyor General. Copies of all land survey activities are sent to the corresponding office in each *powiat* (county), when possible, in both paper and digital formats. After entry in the *powiat*’s registry, the materials are sent to the *Wojwodscha* (province) geodesy and cartography office; these materials are finally sent to the Office of the Surveyor General for archival. The second registry is the land and mortgage registry, which, because of the over-taxed court system, experiences substantial backlogs, in some cases taking over two years to record a property sale. This registry is under the control of the Justice Ministry. All property transactions should be recorded in the district court. However, because of the legal problems arising as the result of backlogs, *gmina* (commune) administrative staff

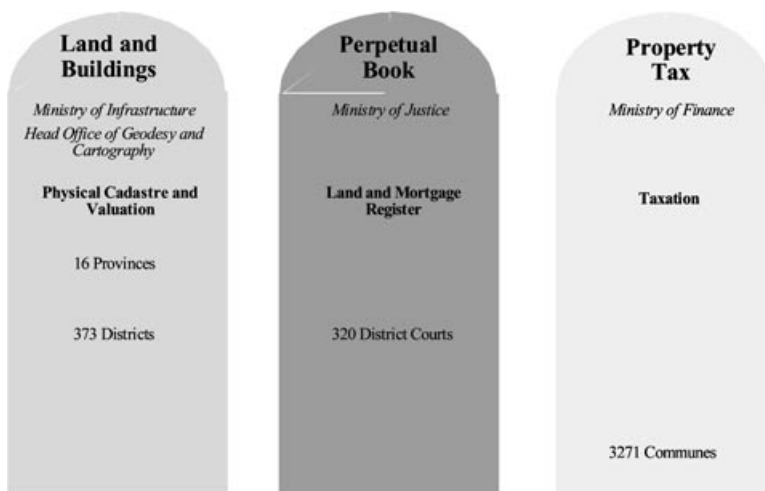


Figure 2 Organization of the Polish cadastral infrastructure (simplified national level).

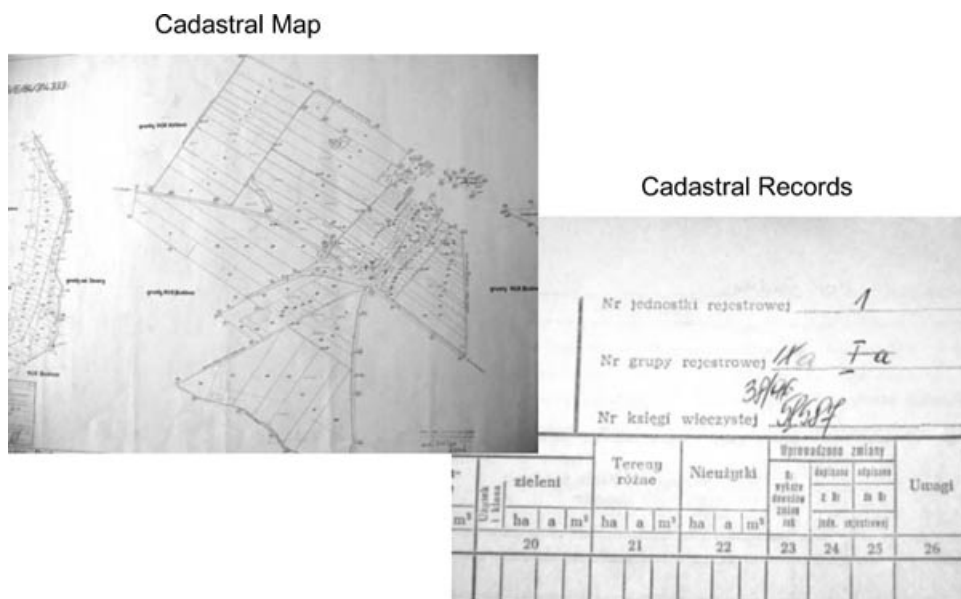


Figure 3 Cadastral information consists of a map showing property boundaries and records. The agreement between map and records is rarely perfect. Survey procedures and laws provide guidelines.

informally checks with the land registry when processing land transactions (Harvey, 2004). The third registry is the real estate tax registry administered by the Ministry of Finance. This registry is used to determine and assess a property tax based on an archaic formula for determining the value of rye or wheat that could be grown on the property.

Political problems exacerbate tensions arising out of the discrepancies between registries. Disputes over authority and attempts to enhance power are commonplace. Following a revision to the National Surveying Law that moved the local responsibility for surveying from communes to counties (powiat), local governments seem to have pursued various strategies that fulfill *de jure* administrative requirements commensurate with the perceptions of elasticity.

4. THREE WAYS TO STRETCH THE CADASTRE

The cadastre can take part in bridging differences between civil and political society and becomes the socio-political space for addressing differences, such as the discrepancy between the cadastre and land tenure. In Poland, exactly this process seems to occur largely at the local level, although there are also important linkages to the regional and national levels of political society. The national status quo is supported by large numbers of local groups.

The cases studies presented here reflect the first year of work from a 4-year research project exploring the development of the Polish cadastral information infrastructure in rural regions. With only one season of observations, it is important to note that details and specifics of each case are lacking and subject to change. Part of the limitations results from the decision to pursue a research design that accounts for, as well as possible, the

manifold complexities of Polish society and history through studies over a 4-year period. The overall research focuses on three areas, one in each of the historical partitions. The selection of sites also exemplifies different issues of post-Socialist transition and European Union expansion.

In summary, results from three counties (*powiaty*) in different parts of Poland suggest that the formal cadastre appears to be reconciled with informal land tenure in many different ways, largely corresponding to the historical development of the area, cultural orientations, and relationships between government bodies. The manifestations of elasticity in these areas point to multiple understandings of the cadastre as well as the multiple roles of the cadastre for Polish political and civil society.

In only one of the three *powiaty* were discrepancies in the order reported in other studies of rural land ownership in Poland reported. Surveyors in the other two stated that the discrepancies ran between 5% and 10%, a figure which can be explained simply by errors and improved accuracy in newer surveys. In the *powiat* that reported a discrepancy between 30% and 40%, the *powiat* surveyor noted that there was little interest in resolving these differences by the communes, who, under Polish law, hold legal responsibility for the cadastre.

4.1 Grójec

Located roughly 50 km south of Warsaw, Grójec is one of the most significant apple orchard areas in Poland, producing relatively large and reliable crops for domestic consumption and also for Eastern export markets. Land prices are comparably high here because of the strength of the production: increased demand from existing export markets and increasing interest from markets in Western European countries.

Surveyors in Grójec *powiat* maintain that only five to eight percent of the land has unclear ownership. The high cost of land has led most farmers to survey their parcels and any discrepancies are resolved. The cadastre supports their interests and they receive strong support from the county administration and villages for maintaining a highly accurate cadastre (highly accurate in the sense that it reflects the tenure situation on the ground). Because of difficulties in obtaining cadastral data from the responsible national agency, the local administration of one *gmina* (commune) has gone so far and created their own shadow approval system to speed up the process for residents. Based on anecdotal evidence, this strategy may be the case in other areas of Poland.

4.2 Sanok

Located in the Southeast corner of Poland, Sanok has experienced significant economic problems, in both its urban and rural areas. Rural areas were largely collectivized following a successful campaign in the late 1940s to suppress Ukrainian partisans fighting for a separate Ukrainian state. The land is often of marginal quality and mostly ill-suited for most crops. The tourism potential of the very hilly and somewhat mountainous area is the hoped-for economic force for development, although some highly specialized agriculture (animal breeding) has become very significant in a few well-situated villages.

The surveyors in Sanok indicate that easily 30 to 40 percent of the rural areas in the county face unclear ownership situations. At the county level, this was seen to be a complex problem but insignificant for villages. A full set of cadastral records is kept by the county

without any regard for discrepancies. The cadastral registries still contain a number of entries prepared in the 1950s and unmodified until today, “Unregulated, [owner] abroad.” As long as a record was created and properly maintained, the legal requirements that apply to the county are fulfilled. The county is currently in the process of completely automating all its records supported in part by EU funds.

The situation in villages of this county was extremely different and variable. Two villages maintained their own cadastral records. Both do this by drawing on data sent by the county. In one case the data is sent monthly; the other receive it when they request it. Another village has no cadastral information at all because of the complexity of maintaining cadastral information. Administrative relationships with the county parallel the types of cadastral data exchanges the local governments engage in with the county.

4.3 Slupsk

Located in the northwest of Poland, Slupsk has strong urban and rural economies, in part due to strong foreign investment presence. In rural areas this is more variable and strong differences are evident between individual villages. The majority of Slupsk was collectivized, leading to many difficulties in the 1990s but now offering potential for large farms.

Surveyors in Slupsk county have not only a complete set of records for the cadastre going back to the late 1940s, they have also completely transformed the paper maps and registries to digital formats, using an integrated system widely used in Polish counties. The system is strongly centralized. Whereas in the other counties, villages also kept cadastral records for their own use; in Slupsk, all cadastral records were solely kept by the county. This leads to some difficulties for people who have to make a long trip to obtain cadastral information, but village officials underscored the tremendous organizational élan and coordination undertaken by the county surveyors.

5. BROADER IMPLICATIONS

The cadastre is of great importance for governance in all of these counties. It is an essential part of being able to govern at a distance, an essential part of regulating local control over land. The different strategies to resolve discrepancies between the cadastre and land tenure encountered in Poland point to the complex and locally contingent relationships between political and civil society’s dynamic stabilization. Approaches for one county were rarely adopted in other counties, or if something similar can be identified in Grójec and Sanok, then the organizations and personalities involved lead to radically different activities. The implications of these findings bear special attention to the historical background and role of the cadastre in local arbitration of land access, control, and responsibilities.

5.1 Disruptions and Negotiations

The discrepancies between land tenure and cadastre discussed in the beginning of the article can be understood as indicators of the degree of historical upheaval and destabilization. The possibility is that the discrepancies are the result of the turmoil of twentieth century Poland. Indeed, in this one powiat, it was possible to find cadastral records from the 1950s, which simply indicated “no owner” next to a parcel and noted in the record, simply, “not

regulated [owner] abroad.” Numerous records like these in this powiat suggest that owners who moved, disappeared, or lost their lives became phantoms of the cadastre. That this situation has remained unchanged in over forty years suggests that the advantage of access and use to this land for some has outweighed the political challenges and risks of finding resolution. Elasticity supports the persistence of *de jure* approaches and problems—whether the consequences are negative or positive for a particular area is a question for future research.

This article points to historical issues as key factors to consider in understanding the causes for discrepancies. Swinnen (1999) highlights four historical-institutional factors influencing the choice of land reform activities in 1990 Central and Eastern European countries: (a) post-collectivization ownership status, (b) the length of socialist rule and lost tradition of private farming, (c) political strength of ethnic groups, and (d) pre-collectivization asset distribution. As important as these factors are, they seem to miss the role of the disruption of communities in the twentieth century. In Poland, the loss of over 20% of the entire population during World War II and the following forced removal and resettlement have led to immense alterations of communities, often characterized by a vacuum into which existing and new settlers sprung.

This would also corroborate the hypothesized significance of local elites in negotiating a high degree of flexibility between the cadastre and land tenure. Profiting from the access and use of this land stands as a potential great benefit for some, at an unknown cost for other residents who arrived after the war and were never made aware of the un-owned land. The ongoing negotiations of these issues are relevant locally as well as nationally, as changes in the cadastral laws would impact the sizeable local elite across the country. Based on discussions in the popular media, it is strongly possible that the elite’s political influence has stymied attempts to revise cadastral laws in Poland since 1989 (Winniczki, 2003).

5.2 A Crucible for Societal Coordination

The cadastre is more than an instrument; it has been the site for forging societal relationships related to the use, control, costs, and benefits of regulated and secure land access. The flexibility between land tenure and cadastre empower localized strategies.

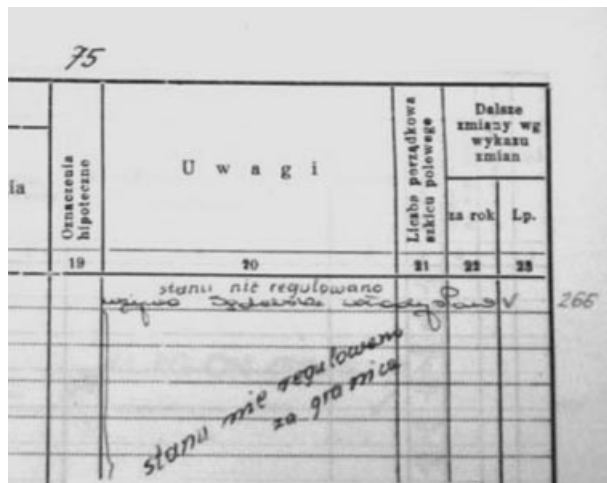


Figure 4 Cadastral record excerpt showing the note, “stanu nie regulowano, za granica,” which can be translated “status not regulated, abroad.”

The elasticity between cadastre and land tenure can hypothetically maintain a local status quo in the following manner: Local administrations are closely linked to local civil society and maintain a cadastral concept that shields actual practices of land occupation from resolution of ownership situations. Local elites have a strong economic interest in this protection of land which they use but face no obligations for. Supporting this social organization of land access, the local administration, largely evolved from past Communist party members, receives crucial political support from these elites. The local administration produces cadastral records that satisfy regional and national agencies but fail to correspond to local ownership and actual use of the land.

6. CONCLUSIONS

Romans, the Europeans who first introduced cadastres, separated between the surveying of land ownership boundaries and determination and evidence of legal title to land. The same separation exists today and is critical to understanding the delegation of control and authority between cadastre and land tenure. The relationships between civil society's land use practices and political society's attempts to benefit elites takes arguably shape in the over 2000 year collected experiences of Western Civilization. The Romans established elaborate rituals and procedures for allocating and re-crafting the relationships between adjacent land users and owners, binding each person and each piece of land into metaphysical alignment with governance and the divine. Perhaps the Enlightenment and search for a Benthaian utilitarian perfection has created blinders that stop us from seeing the significance of administrative technology in the political settlement of civil and political society relationships involving land. If this is the case, the engagement with the crafting of cadastral information infrastructure in Poland and elsewhere stands to broaden our understanding of the connections between land, politics, and the technologies that constantly bridge our modernist designs for a rational world to the realities of civil society's day-to-day existence. Future research activities as part of this ongoing project will help shed light if the elasticity between formal cadastre and informal land tenure exacerbates the elite's possibilities to increase their status and power or if elasticity engenders a more equitable access to land than the liberal cadastre.

6.1 Technologies, Politics, and the Enlightenment

The cadastre supposedly developed as a technology wedded with enlightenment ideals seeks to move beyond irrational political decision making. However, practices of the cadastral infrastructure shed light on the untenable ideal of perfect rationality and unbiased recording of land ownership. Counter the enlightenment ideal, this research suggests that the cadastre is a locally contingent administrative technology for addressing differences between civil and political society.

In regards to the material from Poland presented here, I suggest that the tension between the cadastre's Enlightenment ideals and the reality of local land ownership veils the more significant conflicts for civil and political society. The cadastre's significance truly comes only from resolving the tensions in each place. These technologies play important roles as boundary objects between civil and political society—an important topic for future research. The cadastral records are produced by and for local governments but are used only tangentially to the socially established practices of allocating access to land in the community.

The role of the local resolution and the elasticity of the cadastre and land tenure lead to a great challenge for the development of cadastral information infrastructures. The differences between national approaches, standards, policies, and local cadastral activities may well become the most significant onus for the development of the Polish SDI. This issue may exacerbate or simply parallel difficulties of other countries seeking to develop SDI. The political resolution of these issues would also seem to be paramount to the development of successful policies. In this vein, further study in Poland may aid in looking under the skin at the developments in other countries around the world.

6.2 Consequences of EU Enlargement?

A key issue for land governance and cadastral infrastructure implementation in Poland is how government agencies and political actors manage to find enough elasticity to mediate the tensions arising in the process of establishing a new social organization of the cadastral infrastructure. EU programs supporting the development of cadastral information infrastructures and changed socio-economic situations lead to tensions among local actors. Methodological and theoretical insights from the development of the Polish cadastral infrastructure should also be beneficial for SDI and governance studies in other European transitional economies and around the world.

As Aanestad (2005) discusses, there is a clear political dimension to the revisions of the cadastral infrastructure in Poland. They raise these highly relevant questions for EU enlargement and the Polish cadastral infrastructure in their discussion:

One of the key tasks will be to design the relations between these groups: How will burdens and benefits be distributed? How will risk and responsibility be shared? What will be the value added to services—value for whom? What will be public and common and what will available only to some? In the accounts above there is an implicit dilemma between the collective good and the individual good, which I believe lies at the heart of the matter. (2005)

The research to date presented here is insufficient for answering these important questions. The continuation of this research project over the coming years will make it possible to offer some answers to these questions, at least in light of local interactions between civil and political society. We can expect that the formal cadastre will slowly become a more relevant part for existing land tenure. The increased value of agricultural land and speculation should lead to a strengthening of peoples' desire to have unchallengeable legal records of land ownership and rights. How the existing elites with long-term access to vacant land respond will become an important part of a new flexibility between the cadastre and land tenure. The social coordination role of the cadastral infrastructure in Poland can take place only when it considers the lack of routine rules and crystallized practices related to private property in Poland transition from Socialism.

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