Slowly Towards Trustworthy Land Records of Pre-Exiting Land Rights

Jaap ZEVENBERGEN, the Netherlands

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SUMMARY

There are still many areas in the world where the land rights are not included in a formal, usually quite centralized, land registration system. Projects to 'title' such lands, are often not very successful, and rarely manage to cover a whole jurisdiction or country within a few years. In the mean time more and more of these areas are influenced by economic and national developments that starts to change land into a commodity. Land transactions are becoming more frequent, and the circle of potential purchasers is growing as well. Increasingly such transactions are put in writing, and the contract is regularly witnessed by local leaders (either customary or from the formal structures). Here and there copies of the contract are kept by these leaders, although often they are not archived and indexed properly.

These developments can easily be compared to the four types of transaction evidence as distinguished by Gerhard Larsson (Land registration and cadastral systems, 1991, p. 17), being:

1. oral agreement
2. private conveyancing
3. deeds registration
4. title registration.

To a large extend these four types can be seen as four steps along which many developed countries developed their present land registration system. The paper describes this path for several developed countries. In this way the paper contributes to the recovery of history of capital creation in developed countries, as suggested by Hernando de Soto (The Mystery of Capital, 2000, p. 8 and 9).
The paper postulates that such a stepwise approach is more likely to succeed in areas where there are governance issues and/or where land rights are contested or overlapping (esp. in post-conflict areas). The developments described can already be seen as moving from step 1. to 2. and partly to step 3. In this way land records are emerging 'bottom-up', which means that people will only contribute to it, if they consider the records, and those that are keeping the records, trustworthy. This is unlike the 'titling' projects, where it is attempted to jump with a 'top-down' approach straight to step 4. In the previously mentioned circumstances there is a great risk that people mistrust the procedures, the outcome or the whole system, even when appropriate publicity campaigns are ran. We just have to look at the saying that "Trust comes by foot, but leaves by horseback'.

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1. INTRODUCTION

Secure property rights are considered important for development; it increases land-related investment, augments land values, reduces the level and likelihood of conflict, and spurs economic participation. Because of this, policy-makers all over the world have spent significant resources on programs to formalize land tenure, award title to land, and establish the administrative infrastructure to maintain the records created in this process. (Deininger et al 2006a) The impact of traditional methods to increase land tenure security in Africa is, however, rather mixed (Bruce and Migot-Adholla 1994, Besley 1998). Given the limited outreach of formal tenure systems in Africa (Oosterberg 2002), the main burden falls on customary institutions.
Even though these customary institutions have proven to be quite adaptive in the past, their ability to deal with gender and interethnic conflict, and to maintain traditional structures of control in an increasingly impersonal "modern" environment can not be taken for granted. Thus there is a need to secure property rights via effective laws and solid land administration systems. The question is what a solid land administration system is. It means that the system should be appropriate for the circumstances, sustainable for a long time and trusted by the proprietors. In a 'trustworthy' land administration system, on the one hand the information is reliable and accurate and on the other hand the information is acceptable to the proprietors; they must trust the processes and institutions involved (Lemmens 2006). Part of the failure of many African titling projects is that those conditions are not met.
Before we discuss this further we will look at a classification of land records linked to the historical development in many (developed) countries.

2. TRANSACTION EVIDENCE

2.1 Transfer of Immovable Goods

Land, trees, many other plants and most buildings cannot be moved easily ; they are immovable goods. Many societies, certainly when they have a market economy, have introduced individual control over land, trees, plants and buildings as well (similar Dale/McLaughlin 1988: 19). Especially with regard to land this might not be a complete control as can be found with movable goods, but still one can possess a strong right in a piece of land. With regard to trees, plants and buildings this right is usually so strong that it can be called ownership, which is also the case with regard to pieces of land in numerous societies. The way these rights are constructed makes up the system of land tenure. One can not always transfer these rights at free will, but even when one can still problems remain.
The main problems lie in the questions how to transfer the right unto the 'new' owner, now that it is impossible to hand over the good as such, and how to arrange for other people to see who owns such a good. And since the good as such can not be moved, and thus not be

transferred in the way movable goods can, the transfer of the right in an immovable good has to be solved in a different way.

2.2 Sophistication of Transaction Evidence

2.2.1 Transaction evidence

An important question in this regard is the manner in which a transaction is confirmed and documented. With the development of societies, different types of transaction evidence have developed as well. They can be classified as shown in Figure 1.

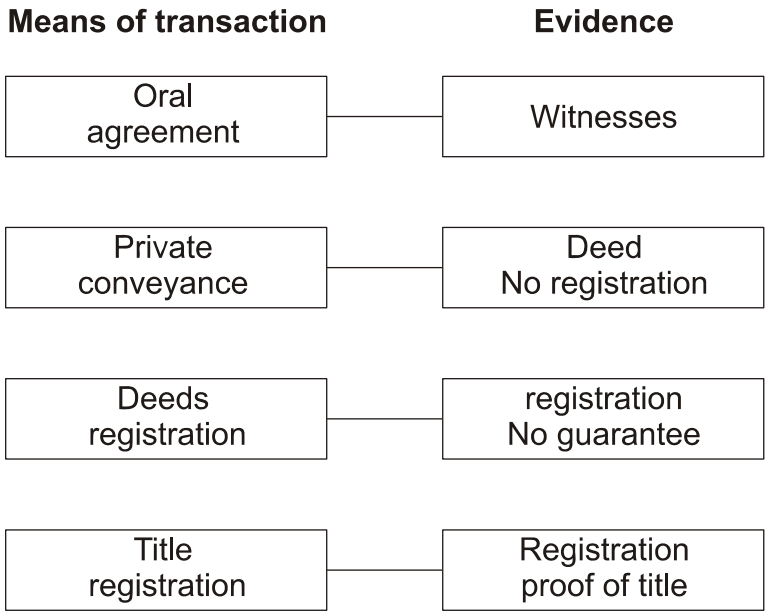

Figure 1: Types of transaction evidence (source: Larsson 1991: 17)

With regard to the transfer of land (in its limited meaning) a second question exists. Land by itself is not an identifiable good. All the land of the world forms a continuum, of which pieces have to be identified which can be treated as immovable goods in which rights can be vested. This second problem will not really be discussed here (see e.g. Zevenbergen 2002), but the development of different answers to the question how to transfer immovable goods will be treated here. The four types just given can be recognized from that quite easily.

2.2.2 Symbolic transfers

If the need to transfer rights has developed in a paperless and close knit society, transactions will be based on oral agreements, which will be completed by symbolic acts replacing the handing over that usually completes the transfer of a movable good. This is often done by handing over a small symbol, which has been taken from the immovable good. In f.i. Ghana this is called the 'cutting of guaha', whereby the seller gives or breaks a leaf, twig, blade or grass (Ollennu/Woodman 1985: 125). In the Netherlands the seller used to 'throw' a twig or

blade from the land to the purchaser (Dekker 1986a: 4, Figure 2). It is not only important for both parties to be aware of the transfer, but also for the other people ('the rest of the community'). Barry (1999) identifies that community knowledge includes either witnessing or verbal affirmation of a contract. This works well as long as a community remains close knit, and transfers are infrequent, but gives problems when a community gets larger or less coherent, and when memories grow dim.

Figure 2 Handing over a twig as a symbolic act for transfer of land (Dekker 1986a: 4)

2.2.3 Introduction of writing

Societies in which writing becomes more and more normal, usually start to use paper to 'witness' the transfer. When writing is still only done by a small group within society the (illiterate) parties might go in front of a judge, and declare there that one transfers the right to another (or even have the judge declare that the 'new' owner is the owner). The courts keep records of their activities, and so the transfer is witnessed in writing. At a later date one can retrace that this transfer took place. In other societies specialized 'writers' (called notaries in much of continental Europe and Latin America) would make a document witnessing the transfer.

2.2.4 Private conveyancing

These documents witnessing a transfer are often called deeds. Traditionally these deeds were left in the hands of the 'new' owner, and were handed over to the next 'new' owner over and over again. After several transfers a whole stack of documents was handed over to the next 'new' owner, and after a while legal professionals are going to check all these documents before the next transfer was made. This system is called 'private conveyancing' and of course has several risks.

The idea of the system is that the seller proves his or her right by being in possession of the previous documents that were drawn up on previous transfers. Of course the system has to start somewhere, but under the assumption that the first owner was generally accepted as such at some point in time (for example through a grant from the government or nobility), a buyer will be satisfied when the seller can show him or her the correct documents transferring

the right from owner to owner since this first one. In reality the transactions are traced for a set period related to the legal prescription period, like 30 or 40 years.

Anyone can imagine the risks involved in this system, whereby an often ignorant and sometimes malicious person holds such valuable documents. First of all the owner of the land, and holder of the documents, might see the documents destroyed due to some natural disaster or ignorance. It is then no longer possible to prove ownership, and the rights to this land become very weak and hard to transfer. Even worse is the situation in which someone steals the documents from an owner. That owner can no longer transfer the land in an orderly fashion, and if the thief falsifies a document suggesting a transfer of the land to him or her, he or she can then sell the land to an innocent third party. This buyer will have a reasonable claim to the land, as does the original owner, who –basically speaking– only lost some papers, and not his or her right to the land.
Another bad case appears when an owner will duplicate the documents by preparing a second set with falsifications and sell his or her land twice to two different persons, who will find themselves in conflict with the same claim at first sight. There is also a serious problem when an owner wants to subdivide the land, since there is only one set of correct documents. The last major problem is the identification of the land to which the right being mentioned in the documents applies. This is often described in an ambiguous way, leaving ample room for later problems.
Keeping within the framework of private conveyancing, several of these problems can be diminished in severity when the evidence from the documents as such has to be strengthened by other forms of proof, especially by checking if the seller is in actual possession or is recognized as the landlord by the actual occupant (user). This solution obviously does not work very well if there is a multi-tiered system of land tenure in place, in which several persons hold different 'sets of the sticks' that together make up a full ownership right (see Simpson 1976: 7). Only one (or maybe two) of them can then meet the additional criterion of actual possession or recognition by the actual occupant.

2.3 Transaction Evidence through Registration

2.3.1 Introduction of registers

Instead of leaving the documents in the ignorant and/or malicious hands of the owner-of-the-day, their storage could be entrusted to an independent third party, who will greatly limit the chances of loss and falsification. Such registers of documents have been set up throughout history in many different countries at different places like the office of a notary or lawyer, a court, the tax authority, a local authority or an office especially established to store such documents.
When this is limited to an elementary register, it constitutes the most simple form of registration of deeds, which often has following drawbacks:

a. For one it was not compulsory in many cases to register the deed, although usually a registered deed would get precedence over a non-registered deed or a later registered deed affecting the same land.

b. Furthermore there was usually no uniform system for identification of properties. The description of the land was left to the parties to the deed.
c. Finally, the original register was arranged according to the deposition dates, which made it difficult to search the register to establish if the seller had a good title. (Larsson 1991: 22)

2.3.2 Enhancements

In order to improve this situation jurisdictions tried all kinds of enhancements (see for instance Dale/McLaughlin 1988: 23). The first problem (a) could be solved by making the registration of all deeds compulsory, but these rules were not always sufficiently effective, because of limited powers to implement and control the law (Larsson 1991: 22). The second problem (b) was tackled by introducing an unambiguous identification of the subject unit of land (prior to registration), often on a map and with a unique number. To solve the third problem (c) indexes to the main register were introduced.

2.3.3 Indexing to trace documents

The first indexes were person-based 'grantor/grantee' indexes, which still form the base of many deeds registries in US counties (compare Dekker 1986b: 219-223). Imagine 'person Ae' wants to sell one of his or her parcels of land to 'person Bb' at some point. Ae claims to have become owner ten years ago when he or she bought the land form 'person Cm'. In the past decade many documents have been registered, and it is very elaborate to go through all of them to find the right document. Some kind of index has to be kept. The most simple one is keeping a list of all documents mentioning the names of both parties; the grantor/grantee index. To make this a bit easier to retrace a separate list can be made for every letter of the alphabet , and the appropriate names are written down there:

C

	Grantor	Grantee	Type of transaction
	Cz	Bq	sale
	Ca	Lv	donation
	Co	Ae	sale
	Ca	Bx	sale
*	Cm	Kk	sale
	Cv	Op	exchange
*	Cm	Ae	sale
	Ck	Mk	sale

Still it is not easy to trace back the right document. Furthermore it is complicated to determine if the two sales by Cm in this case concern two different pieces of land or the same piece of land twice. Even if the related deeds are studied it is questionable if the property description will be such that it will be easy to determine this.

Since the rights, owners, and usage may change but the land remains for ever, the land parcel is an ideal basis for recording information (Dale/McLaughlin 1988: 20). Therefore a better way of tracing back the documents is a system in which a parcel-based index is kept. A list (or cards) of the identified pieces of land (properties) is kept, and the name of the 'owner' is kept connected to each of them. This name is updated after every transfer, with a reference to the document concerned:

(before sale 973)	(after sale 973)
Property nr. 5873	Property nr. 5873
~~Fa~~ sales doc. 303	~~Fa~~ sales doc. 303
~~Cm~~ sales doc. 489	~~Cm~~ sales doc. 489
Ae	~~Ae~~ sales doc. 973
	Bb

This way a quick overview can be reached. Basically this constitutes a simplified picture of most title registration systems (e.g. Germany), as well as the parcel-based deeds registration systems (e.g. 'old' Scotland). In some countries (parts of) the contents of the deeds are copied onto the register, instead of only referring to the place were the deed can be found (e.g. Spain).
The property numbers could be allocated purely administratively, as long as the keeper of the register is convinced the deed deals with a new property, and not with a property which is already contained in the parcel-based index. It is not easy to determine that unless the land is described unambiguously and with regard to its surrounds. The best way to do that is make use of a parcel identifier, to which additional information can be linked as well. In that way something is created that is called a cadastre in quite some countries. Since the information contained in this case is mainly legal, it concerns a judicial cadastre. In a similar way one could also create a file for each land unit –once clearly identified– in which all future transaction documents will be stored. In most countries however, the property number is a separate, administrative number assigned by the staff of the registry or the court.

2.3.4 Level of investigation

Once parcel-based indexes or files exist, different legal regimes could be introduced for entering information into them and for the legal status of the information that is included. Originally documents offered for registration will be accepted and stored at face value. Usually a few formal checks are likely to be made before the document will be accepted for registration. This will usually include a minimal set of items that need to be present in the document, and in several systems a check will be made if the person selling is likely to be the owner (for instance by verifying the previous deed which has to be mentioned in this one). Several systems have introduced a rather extensive investigation into the transaction as it is presented for registration. Larsson (1991: 22) calls this 'title investigation'. Böhringer (1997: 174) refers to it as a "strict examination of the entry request in a formal judicial procedure".

2.3.5 Legal status of information

(1) The legal status of the information that is included in the registration is limited to just being informative in a basic system. It indicates that the parties have created a legal fact with the intention of having a certain legal consequence, and decided to have it registered. Usually people relying on it, and who do not know of a problem, are regarded to be of good faith (bona fide). E.g. 'old' Ghana, some US states.
(2) Often this is strengthened by the fact that registration is compulsory either to affect third parties, or even to complete the transfer (constitutive). In this case non-registration means that (for third parties) the legal consequence did not take place. On the other hand registration does not prove that the legal consequence did take place. E.g. France, the Netherlands.
(3) That proof is included in the last scenario, in which one can rely on the information 'on the register'. Usually this register takes the form of a parcel-based book, in which for each property a given set of items is presented, obviously including the present owner (and other right holders). After the extensive investigation of a presented transaction (as mentioned before), the entry will be made or updated. The level of reliance one can place in the register can still differ from 'public faith' (good until proven wrong; e.g. Germany) to a full guarantee (e.g. Australia). Since contradictory situations can never be totally ruled out, the system is usually complemented by indemnification for the 'loser'. The protection offered (either via guarantee or via indemnification) is restricted virtually always to those who acted in good faith (bona fide) and often to those who acted for valuable consideration.

So there are countries in which the moment a new name is entered through the proper procedures there, he or she will become the undisputable owner, even if the transaction as such was not valid for whatever reason. The idea of such a system is that the register reflects the (legal) reality as well as possible, and –to protect the purchaser– one can rely on the entries in the register, which can even be guaranteed (e.g. Germany). Some systems give such an importance to the entries in the register, that the register itself becomes the legal reality, which seems to be an inversion of the original intent of the mirror principle. In many societies operating such a system the owner gets a piece of paper, usually called title certificate, that contains the information that is on the register at the time of issuance of the paper. There are examples from countries where during a transaction the piece of paper is handed over as a representation of the transfer of the piece of land, without the registry being informed of the transfer (e.g. Indonesia). One should be aware that possession of the certificate is not conclusive of any right to deal. Therefore the use of title certificates is being questioned or even abolished in countries that are used to having them.

3. LOCAL DEVELOPMENTS

3.1 'Petits papiers'

In many customary areas there are land transactions taking place, as was also widely reported during the Colloque International "At the frontier of land issues – Social embeddedness of rights and public policy" in Montpellier, May 2006. Whether the transaction is a decision of an individual, a household or involving elders is not of concern in this paper. This type of

transfers would traditionally be oral transfers, mostly limited to family or people from the same area and/or lineage. More and more such transfers are put in writing, either by the parties or by a local leader (a customary elder or a formal official). In Francophone Africa the term 'petits papiers' is used to indicate this type of documents. Literately this means 'little papers', which of course refers more to their lack of formal, legal standing, than the actual paper size. The use of similar documents is also reported from parts of Uganda.
The use of such documents resembles the second type of transaction evidence 'private conveyancing'.
Clearly the exact contents and procedures surrounding the 'petits papiers' is very varied; not only between countries, but also within them. But in cases where the same (literate) person is involved in writing such documents more regularly, he or she is likely to develop a 'model'.
One could imagine that models for the most common cases would be made available, most likely as forms where only blank spaces would need to be filled in. Introducing such forms by government agencies might not be easy, since it would suggest some kind of formalization from such activities, and/or give the parties to the transfer the feeling that the government is trying to check and/or tax them. However, voluntary forms supplied by NGO's might be a first step to improvement of this way of working.

It should be noted that reports of 'petits papiers' where given from countries which have a long tradition under a Torrens system, which did not managed to reach out to the whole territory, and/or where it is not an option for many of the poorer proprietors to use the formal processes of transferring Torrens title, esp. not in case of inheritance (e.g. Uganda mailo lands).

3.2 Elementary land records

In case of land transactions as described in paragraph 3.1, often a local leader or official (customary or formal) is involved, either as a literate 'writer' or as a witness. Regularly in addition to the document(s) going to the purchaser (and sometimes seller), a copy of the document remains with this leader. It can be just kept by the person as such (and not as part of the position held), and the documents can be just 'thrown' on a pile, or archived in some kind of system.
The practice of keeping copies of such documents resembles the third type of transaction evidence 'deeds registration', be it that it starts out as a very rudimentary version. Enhancements with introduction of indexes to the archived documents would contribute to improving the records.

A first step could be officially mandating the local leaders or officials for this practice, quickly followed by empowering them to archive the documents of these transfers in a systematic way (with indexes). For this low cost solutions to empower them to keep simple records of such transfers should be designed. If and when the system that evolves in this way is being trusted and used by most of the proprietors, a next step could be the formally requiring recordation for any land transfer. Partly parallel, and most likely in phases, the empowerment of the leaders or officials could include given them a 'map' base to sketch the affected land onto (start of a parcel index map). Ultimately the system could grow into the

base for a really formal system, that could include issuing of certificates or titles, if desired. Depending on the legal stipulations backing it up, this would then be the final step to the fourth type of transaction evidence 'title registration'.
An overview of such development in what he calls 'non-cadastral countries' can be found in Larsson (1991: 23).

3.3 Innovative land laws

The developments described in paragraphs 3.1 and 3.2 can be seen as bottom-up approaches to locally improve tenure security for cases of land transfer. A few first suggestions for strengthening those developments (and giving them a more formal character) have also been given.
Land records not being full titles are also being created top-down in several countries through more innovative land laws and policies. Examples are for instance rural land certification in Ethiopia (e.g. Deininger et al 2006b) and –so far only theoretically– certificates of customary ownership in Uganda (see Asperen/Zevenbergen 2006). Also approaches where within certain 'titled' boundaries, other types of land records are used (e.g. Namibia, as well as numerous (upgraded) informal settlements) can be put into this category.

4. CONCLUDING REMARKS

Further study of these types of initiatives (both bottom-up and top-down) and their strengths and weaknesses against an overall conceptual framework would be desirable. Such a conceptual framework could also benefit from the lessons from similar developments in developed countries. Furthermore more attention should be paid to problems encountered in several developing countries in which the fourth type of transaction evidence 'title registration' has been introduced to large tracts of the country. Large parts of the entries in these systems have not been updated for a long time. Inheritances and sales of decades are not to be found in the books (e.g. Uganda, Madagascar). These systems have proven unsustainable so far, and therefore their upgrading is only really useful if they will become sustainable in the future.

An advantage of the bottom-up approach is that it is the proprietors themselves who show an interest in moving ahead from the first type of transaction evidence 'oral agreement'. This means that they themselves perceive there is a need for certain leaders or officials to get involved, and they have a certain say in which ones they are going to use, and what meaning they give to their involvement. This might create some checks and balances between the proprietor and the land administration officials, which are usually not present in a type 4 system (which tends to be legalistic and bureaucratic).
On the other hand the fact that the system is not final and not yet stable, might in itself create room for unwanted flexibility to be exploited by the well informed, connected and/or well to be.
The same flexibility, on the other hand, will allow for the dust to settle on certain types of disputed cases, without the need to have an 'ultimate' (legal) decision on the issue at the time of recording. It also allows for a potential buyer to combine local knowledge and local trust

with the land records when deciding to buy or not. Especially when those having to make the 'ultimate' decision (the land administrators and the local/regional authorities and/or courts) themselves are part of an ongoing institutional struggle, the outcome of such a process, regardless whether it is correct according to the law or even to so called 'international standards', will most likely not be trustworthy to (parts of) the communities involved. In such cases such 'ultimate' decisions in the end will only create one extra layer in the myriad of confusion of access to land in such an area. And that is far from bringing an increase in tenure security.

Now that 'big bang' land administration projects jumping straight to type 4 systems often fall short of creating the intended solid land administration system that is appropriate for the circumstances, sustainable for a long time and trusted by the proprietors, it is worth taking the 'slower' approaches more seriously. Such approaches that introduce type 2 or 3 systems are emerging bottom-up in many 'customary' areas, and are also being introduced formally as innovative land laws. Undoubtedly these systems are not perfect, and many improvements can –and will– be made to them. To be able to contribute to that, we first need to better understand what is happening, and why, and also relearn some lessons from countries which have gone through similar paths in the past.

REFERENCES

Asperen, P. van, Zevenbergen, J., 2006, Towards effective pro-poor tools for land administration in Sub-Saharan Africa, Proceedings XXII FIG Congress, Munich, October 8-13

Barry, M.B., 1999, Evaluating Cadastral systems in Periods of Uncertainty: A Study of Cape Town's Xhosa-speaking Communities, PhD Thesis University of Natal, Durban

Besley, T., 1998, Investment Incentives and Property Rights, in: Peter Newman, eds., The new Palgrave Dictionary of Economics and the Law, London: Macmillan

Böhringer, W., 1997, Comparison of the Land Registry System in Central Europe with Other Forms of Property Law: Introduction to the Basic Features of Central European Land Registry Law and Apartment Ownership, in: Notarius International, 1997/2, p. 166-177

Bruce, J. W. and S. E. Migot-Adholla, eds., 1994, Searching for Land Tenure Security in Africa. Dubuque, IA: Kendall/Hunt Publishers

Dale, Peter F. and McLaughlin, John D., 1988, Land Information Management, An introduction with special reference to cadastral problems in Third World countries, Oxford: Clarendon Press

Deininger, K., Ayalew, D., Yamano T., 2006a, Legal knowledge and economic development; The case of land rights in Uganda, Word Bank Policy Research Working Paper 3868

Deininger, Klaus, Zevenbergen, Jaap, Daniel Ayalew Ali, 2006b, Assessing the Certification Process of Ethiopia's rural Lands, in: Proceedings Colloque International 'At the frontier of land issues: Social embeddedness of rights and public policy' (1A), Montpellier May 17-19 2006

Dekker, H.A.L., 1986a, Kadaster [Cadastre], Numij's Studie en Praktijkreeks Vastgoed, No. 2, Leiden: Numij (Dutch)

Dekker, H.A.L., 1986b, Nationale Grondboekhoudingen, Overzicht kadaster-systemen [National land recordings, Overview of cadastral systems], Leiden: Numij B.V. (Dutch)
Larsson, G., 1991, Land registration and cadastral systems, Harlow: Longman Scientific and Technical
Lemmens, M., 2006, Carving Up a Country, in: GIM International, January 2006, p. 11
Ollennu, N.A. and Woodman, G.R., 1985, Ollennu's Principles of Customary Land Law in Ghana, Birmingham: CAL Press
Oosterberg, T., 2002, Designing Viable Land Administration Systems, World Bank Regional Land Workshop in Kampala
Simpson, S. Rowton, 1976, Land Law and Registration (book 1), London: Surveyors Publications
Zevenbergen, J., 2002, Systems of Land Registration - Aspects and Effects, PhD thesis Delft: Netherlands Geodetic Commission of the Royal Academy of Arts and Sciences

BIOGRAPHICAL NOTES

Jaap Zevenbergen is associate professor at the section Geo information and Land Development of the OTB Research Institute for Housing, Urban and Mobility Studies of the Delft University of Technology. He holds Master degrees in geodetic engineering and law and defended his PhD on systems of land registration in 2002. He has published several articles and numerous papers about land registration, including one at each FIG Congress since 1994. He has studied numerous systems of land registration, both as a researcher and as a consultant, the most recent being Uganda, Ethiopia and Croatia.

CONTACTS

Dr. Jaap Zevenbergen
Delft University of Technology
OTB Research Institute for Housing, Urban and Mobility Studies
Jaffalaan 9
2628 BX Delft
THE NETHERLANDS
Tel. +31 15 2784418
Fax +31 15 2782745
Email: j.a.zevenbergen@tudelft.nl
Web site: http://www.otb.tudelft.nl/