THE IMPORTANCE OF THE INSTITUTIONAL CONTEXT FOR SOUND CADASTRAL INFORMATION MANAGEMENT FOR SUSTAINABLE LAND POLICY

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INTRODUCTION

Land and the way governments deal with the land, are issues of major importance in the development of society. This does not go unnoticed at global level. In the Global Plan of Action for Sustainable Development, as adopted by the Rio Conference 1992 (Agenda 21), global objectives of combating poverty, sustainable settlement, sustainable agriculture and forestry, are directly related to the land issue. According to the Plan of Action, strengthening legal frameworks for land management and land ownership is strongly recommended to facilitate access to land for the urban and rural poor, to create efficient and accessible land markets, to establish appropriate forms of land tenure that provide security for all land users especially for indigenous people. Another Plan of Action, as adopted by the HABITAT II Conference in Istanbul 1996, considered sustainable housing not only as a roof above one's head, but also as having enough room, access to land and security of tenure. This Plan advocated providing sufficient legal security of land ownership and land use, an equal distribution of land to all people and protection against illegitimate expulsion. Governments should furthermore, as it says, aim to provide legal frameworks facilitating the land market, by clarifying the definition of land tenure and property rights, by creating clear procedures for transfer of rights, by establishing a transparent and reviewable market, by encouraging access to land especially for women, and by creating fiscal systems providing opportunities for adequate housing. One new initiative is the Global Campaign for Secure Tenure launched last December by the UN Commission on Human Settlements (Habitat) as a follow-up to the Istanbul Conference. The Campaign states that insecure tenure inhibits investment in housing, hinders good governance, promotes social exclusion, undermines long-term planning, distorts prices of land and services, reinforces poverty, and adversely affects women and children. Action point number 1 is the struggle against forced eviction, as the UN feels that forced eviction constitutes a gross violation of human rights, in particular the right to adequate housing (see the Universal Declaration of Human Rights, 1948).

In a world where 1, 3 billion people live on less than 1\$ a day (with the worst decline in living standards in eastern Europe and the former Soviet Union), 1 billion people live without adequate housing, 100 million people are homeless, 600 million people suffer from chronic under-nourishment, reviewing the way how governments deal with land and land administration seems to be *a matter of urgency*.

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ABOUT LAND ADMINISTRATION

First of all it is needed to clarify how we understand the land administration activity. In this paper we consider land administration as the process of determining, recording and disseminating information on ownership, value and use of land, when implementing land management policies (UN, 1996). There are more definitions of 'land administration', mainly caused by a *different understanding of the word 'administration*'. Therefore 'land administration' is sometimes understood as the administration (management) of land, like 'the processes of regulating land and property development and the use and conservation of the land, the gathering of revenues from the land through sales, leasing, and taxation, and the resolving of conflicts concerning the ownership and use of land' (Dale & McLaughlin,1999). From that point of view the definition used in this position paper according to the UN Land Administration Guidelines (UN, 1996) is to be seen as a working definition, with a fairly operational nature (the 'bookkeeping').

'Ownership' is to be seen in a broad sense: land tenure, as the mode in which rights to land are held, based on *statutory law, common law, and customary traditions*. 'Value' is to be understood as all kinds of values which land might have, dependent from purpose of the value, use of land and method of valuation. 'Land use' is to be understood as all kinds of use land might have, dependent from purpose and use, classification and methodology. 'Land' is to be considered as the surface of the earth, the materials beneath, the air above, and all things fixed to the soil, so more then 'land' alone.

Regarding the content of the concept of land administration, the following is important: land administration is *not a purpose in itself*. It aims at serving society, when implementing land policy through land management activities. 'How to deal with land', is in all countries (whatever stage of development they are) a topic of government policy (might even be expanded to 'civil society'). Such a land policy explicits the governments decisions on the whole complex of socio-economic and legal prescriptions how the land and the benefits from the land are to be allocated and therefore relates to economic development, equality and social justice, and environmental preservation and sustainable land use (UN, 1996).

Here we enter a very sensitive field, as land policy will be very much determined by *ideology*. It makes a world of difference whether capitalists or communists, whether socialists or liberals are in power: will the land and the benefits of the land be allocated to the rich or the poor, to large-holders or to small-holders, to individuals or to the state. There is a growing notion that ideology, history and attitude of a people are important parameters to understanding the role and the organisation of land administration in a certain country.

From an ICT-architectural point of view, such a tool will be materialized in the form of a *geospatial data infrastructure*, ultimately in a digital environment (Groot & MacLaughlin 1999) as a network of distributed data sources. From a users perspective (functionality) land administration provides a *land information service*.

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Within the institutional framework (public administration, good governance, legal framework) *land administration systems* will occur in various forms. Concerning land tenure there are deed and title registration systems, negative and positive systems of legal evidence, general and fixed boundaries, legal status according to private and public law, centralised and decentralised systems etc. and *all forms in between*. The implementation of a land policy (e.g. by land management activities) will be a joint responsibility of private and public parties, however it is the governments task to set a binding framework: 'the rules of the game'.

This puts emphasis on *institutional* matters like adoption and enforcement of laws, and the organization of the public sector, preferably based on the concepts of the 'rule of law' and 'good governance'.

A government normally has quite a few instruments to implement land policy from which the most important ones, *inter alia*, are (GTZ, 1998):

- providing security of land tenure and security of credit
- regulating the land market
- urban and rural planning development and maintenance
- land taxation

By consequence, talking about the contribution of land administration to society, this contribution can be identified in the way they facilitate these land-policy instruments.

IMPROVING LAND TENURE SECURITY

A land administration system differs from other geo-information systems in a sense that it represents more than physical attributes to spatial objects only, namely the relationship humankind to land in the form of rights, interests and responsibilities to land. These relationships might be based on statutory and common law, customary traditions, or informal use (therefore more comprehensive than the traditional western approach to ownership, often named as 'colonial'). As such, land administration relates directly to the norms and values in society.

Without an in-depth understanding of land tenure arrangements, it will be hard -if not impossible- to identify the processes of determining, recording and disseminating of information on tenure arrangements, which should be in place in order to deliver the services required for an adequate facilitation of security of tenure, markets, planning, taxation.

The instruments for establishing a land administration system are the adjudication process, and mapping. These instruments are focused on the recording of existing land tenure arrangements: the status quo. Both adjudication and mapping by their nature therefore have a static connotation. Adjudication after all is the process whereby all existing rights in a

particular parcel of land are finally and authoritatively ascertained (Lawrance, 1985). Land adjudication does not create rights, only establishes existing rights.

Mapping, in the sense of fixing some kind of geo-reference to the object where rights to land are being exerted, also reflects by its nature the status quo. The mapping part of land administration has to provide sufficient specification on the location of the object. *It is a misunderstanding that this could only be done by defining a cadastral parcel and by a precise boundary survey*. Any sort of geo-reference which is recognised by a community will meet the demands of specifying an object. At the contrary it is a misunderstanding that object-definitions without any reference to the earth's surface can meet demands of providing evidence of the location of legally recognised land-objects. Attempts e.g. using street-addresses as such are to fail (just to mention the use of numbered front-doors as a commodity where street-addresses are the basic unit for some legal status).

So, land administration systems in their initial phase reflect the existing relationship men to land. This relationship however changes. This change has various faces.

First of all it will change *autonomously* by the change of time and circumstances by peoples behavior. From a general view (Ting, 1999) considers the relationship humankind to land as a dynamic one over the centuries caused by changing opinions on the role of land in a society. She talks with that respect of 'global drivers'. As a derivative also the scope of land administration changes. (Powelson, 1987) analyses the development of land tenure from ancient times to date and shows how the outcome of that process differs from region to region dependent of the course of history, attitude and culture of communities. *Political ideology too plays an significant role*. Both analyses demonstrate that land tenure as a phenomenon changes as times go by providing new forms of rights to land which did not exist before. Although these changes have a long term development, for the land administration activity it is important that legal and operational frameworks are sufficiently adaptive to cope with changes.

More challenging however are the *spontaneous changes* in land tenure forms which result from short- and mid term developments attempting to answer societal needs. New rights to land which draw attention last decades are -in our view- motivated by three drivers:

- the urge for providing secure access to land
- the need for public acquisition of land
- the recognition of indigenous rights to land

Providing secure access to land is in many countries a priority, inspired by the recommendations of the global plans of action of Agenda 21 and Habitat, as well as the current UNCHS Global Campaign for secure tenure. The drivers for improving security of land tenure are mainly to be found in the worldwide approach to poverty alleviation. Therefore the measures to encourage security of tenure apply foremost to the urban and rural poor, and to vulnerable groups (indigenous people, women). Using traditional tenure forms to supply security of tenure (freehold, leasehold etc.) are proven to be cumbersome,

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resulting in long lasting obscure procedures which are badly accessible by the poor. Therefore governments try out *new forms of land tenure* by choosing innovative approaches and inventing simple rights to land which are relatively easy to assign. Examples are the certificates of right, occupancy licenses, permissions to occupy, land sharing constructions, corporate land banks, community land trusts, and anti eviction laws. The nature of these tenure forms is basically that they -all to a different extent- *provide basic de facto security rather than sophisticated de jure security*. A special case is adverse possession, that is the peaceful occupation of land without formal legal agreement. If the law does not recognise adverse possession, while at the same time it exists as a reality (as it supposes very precise knowledge about all involved boundaries, which is in practice an impossible requirement) it is a burden to the land market. If adverse possession however is possible by law, and the land administration system cannot cope with its registration or recording, there is a problem too.

Regarding *public acquisition of land*, there are a few methods for governments to interfere in the land market for its own sake. Of course the government can buy land on the free market, competing with other potential buyers. If the government needs a lot of land, the risk of being too active on the market will result in a price boost. Therefore governments use other instruments. *Pre-emptive rights*, which is a priority right for the government to buy first if an owner sells, are getting quite popular. The existence of an pre-emptive right has legal force against third parties. Therefore a land administration system should record these public rights. The ultimate form of government interference is the right of *expropriation*, where the government revokes private land rights in favor of itself. Normally the instrument of expropriation is embedded in a serious legal procedure which takes several steps, from which an official intention for expropriation is a start. As soon as the law attributes legal force against third parties, land administration systems should be able to record.

Regarding the *recognition of indigenous rights to land*, new forms of land tenure evolve: native titles and common properties. Native titles can e.g. be observed in Australia (Native Title Act 1993), USA and Canada (registerable title to native groups since 1960), New Zealand (since Waitangi Tribunal 1975), Fiji (Native Land Trust Act 1940). These native titles show a growing awareness of the existence of land right by indigenous peoples. Also the nature of these title does reflect this: as in e.g. Australia freehold and leasehold titles are granted (by the Crown), native titles however are considered as titles which indigenous Australians already have and which are not the Crown's to grant. Communal properties evolve in South Africa where an Act has been passed to allow a group of people to own property communally (Communal Property Associations). Knowing that western European land administration systems (mostly in Scandinavia) face certain problems in recording their 'common properties' (properties jointly owned by e.g. adjacent owners by force of the law), it is a challenge for land administration systems to cope with these new forms of tenure.

The autonomous development of land tenure notions mentioned above, place the relationship from men to land in the heart of the development of *norms and values*. Another kind of changes however reflects changes in men-land relationships within the existing framework of law and tradition. In other words: there is no change of the concept of land tenure, but of the actual exercise of these rights. We see five drivers for this change:

- transfer of land rights in a market environment
- urban and rural land use planning
- breakdown of indigenous local systems of land rights
- integration of indigenous land tenure in a statutory legal framework
- various types of land reform

Regarding the transfer of land rights in a market environment, this transfer is based on the concept that land is a commodity, and can be sold and purchased. From a legal point of view this means a conveyance of rights to land from one person to another. The up to dateness of a land administration system depends very much on the procedures of land transfer. The earlier mentioned global plans of action criticize quite heavily the way land administrators design and organise these procedures. For example (Barnes, 1994) reports at the 1994 Congress of the International Federation of Surveyors that the land titling process in Ecuador took between nine months and five years, the process in Bolivia consisted of 23 steps which took many years, in Peru more then 200 bureaucratic steps which took about 43 months. (Fourie, 1999) considers cadastral and land information systems to be one of the most important blockages in land delivery. These systems are too centralised, expensive, and not geared to the urban poor who are in the majority, as procedures are unaffordable, often based on colonial approaches, complex and not transparent. (Van der Molen & Österberg, 1999) show how certain decisions on land administration concepts and procedures might cause important imperfections for land administration systems which impact negatively on the value of land administration systems for society.

Apart from the normal market activity, a government can influence the market to a substantial extent, by attempting to regulate the market. The driving force behind that opinion is that land should not be considered a commodity only, but also as a scarce community resource which needs to be handled with care. This should be done in a well-balanced manner, as too many restrictions and unnecessary regulations immediately will result in an informal market.

Whatever the case, land administration systems should be able to cope with all these changes in the actual relationship men to land.

Regarding *urban and rural land use planning*, the implementation of given land use requires an intervention of the government (mostly local governments) in private rights to dispose. This might result in voluntary and compulsory change of rights and interests in land, by means of either voluntary action taken by owners and users, or forced action by the government. This is most clearly in situations where governments acquires or expropriates

land rights, and -after development of the area- issues land rights to other target groups (e.g. urban people in stead of rural farmers).

Regarding the *breakdown of indigenous structures* a complex situation evolves. Indigenous tenure is dynamic, and provides in certain circumstances sufficient security of land tenure. However experience shows that spontaneous simplification and individualization of rights to land occur whereby households increasingly acquire broader rights of exclusion and transfer as population pressure and levels of commercialization increase (Bruce & Migot-Adholla, 1993). If there occurs a further individualization of land rights, an evolution of use rights to property rights, a marginalization of ethnic groups, a decline of local resolution of land conflicts, the government might start a procedure to change from indigenous rights towards statutory rights. In order to cope with the pace of these social changes, a *wise migration path* is necessary and possible. In the initial design of land administration systems, providing support to these future processes is to be taken into account.

Regarding the *integration of indigenous right in the statutory system*, there might be various rationales. We see at least two:

- the policy to protect indigenous land rights
- the need for land management

The policy to protect indigenous land rights might be based on scarcity of land, causing conflict amongst customary groups. This happen to lead to demands from customary communities to identify and guarantee the outer boundaries of their territory and jurisdiction. In those situations the land law might legally recognise indigenous group titles or common properties, and provide facilities to survey the outer boundaries of these properties. If there is no need for further individualisation within such a community (because of e.g. low land mobility, no land disputes) a government can stick to the outer boundaries. This might be sufficient for the aspect of land management as well. Governments faces difficulties in the implementation of land policy instrument when they do not know who owns the land and where it is. A inventory of outer boundaries of the territory of indigenous groups with their own customary jurisdiction and an indication which persons are in lead ('chiefs') and attributing legal meaning according to the land law to these areas and their administrative structure, give governments possibilities to get in touch and to negotiate or bargain the land management measures. Emerging land title and demarcation forms are native title, village title (Tanzania, Guinea Bissau), allocation of rights within the land boards system (Botswana), and various forms of communal tenure (mentioned earlier). Bringing this land tenure in the legal framework, means a substantial extension of land administration systems, which -on their turn- should be able to cope.

Regarding *land reform*, a continuum of land reform activities exist. In Central and Eastern Europe there is since decline of communism in 1989 an ongoing land restitution, aiming at *restitution of property rights* which existed before communist rule, from the State and rural collectives to the original owners or their heirs. Land restitution also occurs in many

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varieties, like restitution of former land right as some kind of official credit note to be used when buying land or as a share in a collective farm (e.g. Czech republic, Hungary), or even giving back the land allocated exactly on the same location as it was before communism (e.g. Bulgaria). These are all based on political choices. As many countries completed their restitution program (e.g. Slovak Republic, Armenia, Hungary), and now face too much land fragmentation, there is a growing demand for a mechanism to improve agricultural business structure.

Land redistribution is a form of land reform aiming at breaking down large holdings in favor of the poor. For social reasons one might say that land fragmentation is encouraged. This is actual in e.g. South Africa, Namibia and Zimbabwe and almost all Latin American countries (e.g. Argentina, Bolivia). The president of the World Bank, Mr. James Wolfensohn, recently speaking for new Latin American rulers, pointed out that this kind of land reform definitely must have top-priority.

Land consolidation aims for the formation of large agricultural parcels, by a process of reallocation. Basically there is no change in the amount of property rights possessed by a farmer. The location however is changed, by a re-allotment process based on exchange of lands in such a way that farmers keep the same production-value as they had before. The consolidation improves however their economic benefit.

A special case is the *land re-adjustment* (applied in e.g. Germany, Japan), where the reallotment process also aims for making public land available for urban development, but in such a way that the remaining agricultural business sector is well structured.

Land administration systems in countries with a policy of land reform, therefore have to take into account their capacity to be adaptable to these reforms.

REGULATING LAND MARKETS

The previously mentioned global summits expect that a free land market will move the key economic resource of land towards the highest and economically most efficient use. Governments are therefore challenged to encourage the creation of efficient and accessible land markets that meet the community needs by improving cadastres and streamlining procedures in land transactions. The World Bank Land and Real Estate Initiative urges the re-engineering of cadastres, developing regulatory infrastructures, and access for the poor. Access to land, and access to credit especially for the poor, are to be facilitated by simple, fast and clear procedures, cheap and accessible information on land, clear definitions of land tenure and property rights, the World Bank says. Knowing the inequitable income distribution in the world, one might wonder which instruments a government has for regulating the market in such a way that not only the rich benefit. One recent experience is that some governments in Eastern Europe are considering to restrict the new open land market, as the few privatisation-oligarchs will possess the bulk of the land in the country in due course. After all, the effects of a real free open market can be *disastrous*. Without any

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doubt the abolition of moratoria on land transactions, the elimination of restrictions on the size of ownership, the elimination of price restrictions, the elimination of land use restrictions, the minimizing of preferential rights for the government, will be in favor of the rich. Our view is that governments should aim for a well-balanced set of regulations to manage the land market in such a way that access to land and credit for the poor becomes attainable (Dale & Baldwin, 2000). The driving force behind that opinion is that land should not only be considered a commodity, but also a scarce community resource which needs to be handled with care. We would like governments to considering regulations on the maximum size of land holdings in order to break up large holdings, on the minimum size to prevent farmers from being too small, on pre-emptive rights to acquire public land, on the approval of land-transfers for preventing undesirable changes in land use, on antispeculation orders to avoid speculation, on moratoria on land transfer to avoid undesirable land transfers, on price restrictions to facilitate access to land by the poor, on ceilings to credit with land as a collateral to avoid a boost in foreclosures. This should be done, as we said, in a well-balanced manner, as too many restrictions and unnecessary regulations immediately will result in an informal market.

PLANNING AND DEVELOPMENT OF URBAN AND RURAL LAND USE

Regarding the third sector to be facilitated by land administration, urban and rural land use planning, our view is that planning and development should be seen as an intervention by the government in existing proprietary structures. The FAO Guidelines for Land Use Planning 1983 recognise legal and traditional ownership and usage rights for land, trees, and grazing as one of the important basic elements of information about an area when developing land-use plans. The FAO in its study on the role of legislation in land-use planning 1985 emphasizes the influence of existing land tenure patterns in the decision-making process by formulating questions like who owns the land in a legal sense, who controls the land in fact, and how are customary rights integrated into statutory law.

Although the attention of international organisations is attracted more and more by urbanisation they should not forget the *rural areas*, as the complex of food, water and land is a major prerequisite to solving the problem of 600 million people suffering from hunger.

Talking about *urbanisation*, we should however admit that the growth of urban and periurban areas constitute a big problem. The world's urban population continues to boom. While in 1950 30% of people lived in urban areas, the United Nations estimate that in the year 2030 60% will do so. At the same time experience shows that governments in the 'non-western' countries can by no means cope with the migration of rural people to the cities, resulting in a growing number of informal settlements. It is estimated that up to 80% of urban growth is in informal settlements. Problems accumulate dramatically, resulting in lack of services, no infrastructure, bad housing, and above all insecurity of land tenure. The World Bank estimates that 25% of all urban dwellers live in poverty. The HABITAT Global Plan of Action 1996 (mentioned earlier), considers insecure tenure as one of the most essential elements of a successful shelter strategy and no wonder that the Global

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Campaign for Secure Tenure has as its first priority opposition against forced eviction, because forced eviction always exists where the worst housing conditions are, always touches the poor, often is violent, and results in evictees who end up even worse off than before. *Anti-eviction laws* become more and more common which -seen from the cadastral point of view- constitutes a sort of innovative right to land, namely the right not to be kicked off the land you actually live on. A new right, which is eligible for registration in a land administration system! Providing governments with information on who has certain rights to land, where that land is located, what size the land plot has, is a major task of cadastres. This is especially valid when a land-use plan is to be implemented. Such implementation is hardly possible when a government does not know in which private rights to land it has to interfere.

One might wonder how 'non-western' countries can control urban growth without the availability of these basic land administration data. In saying that many governments are too weak to manage their land resources, we guess that it will not always be the weakness of the government as such, but the impossibility to manage the land. Without all the information that *western countries* normally have, our conclusion is that they just can't. What happens is that these governments can only manage land by imposing developments without taking into consideration the existing proprietary structures. They ignore the people living there and apply forced eviction.

TAXATION OF LAND

We would like to be brief on land taxation. Land administration traditionally serve land taxation purposes. An international survey showed that of 14 countries examined spread around the world, all had some kind of immovable property taxation (Youngman & Malme, 1994). All countries used information from cadastres, land registry and land title offices except Israel where they use information extracted from building permits. Normally the land tax is a *local tax*, as a source of autonomous local government revenue. An inventory by the UN/ECE shows that of the 40 ECE member countries, 95% operate a land-valuation system for assessing land values for taxation (UN/ECE 1998). Even in the Netherlands the legal base for the Cadastre was the Law on Land Taxation until 1973 when this law was replaced by a municipal land tax. The current multi-purpose character of the Dutch cadastre was legitimised in the new Cadastre Act 1992 along with the new Civil Code.

In 1999 the Association of Netherlands Municipalities calculated that taxes based on land value generate 4.4 billion Dfl for the municipalities, 3.7 billion Dfl for the State government, and 0.4 billion Dfl for the waterboards, while monitoring costs are no more then 200 million Dfl. For the municipalities this is 47% of their income from revenues.

Countries in transition also introduce land taxation, which constitutes a joint challenge to the efforts towards privatisation, decentralisation of state power, and market development. For example, in the Republic of Estonia the revenue from local land tax already is 3% of

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the local budget, in the Czech Republic 3%, in the Slovak Republic 11% and in Poland even 13%. In Columbia as in many other countries in Latin America a political debate is going on highlighting the difficulty of measurement of the land tax base due to the obsolete current cadastres, reports the Lincoln Institute of Land Policy. El Salvador, recovering from civil war, is discussing the introduction of a municipal land tax for the city of San Salvador starting from a simple tax rate and growing into a more sophisticated system.

An up-to-date land administration system is an essential information source for levying land taxes. Without knowledge about taxable persons, taxable objects and market values it will hardly be possible for tax authorities to enforce land taxation. The Federation of Bosnia Herzegovina, for example, after the signing of the Dayton peace treaty is currently tying to develop local land tax based on the existing cadastral records, combined with local public housing records and information from utilities. The city of Mexicali invested large amounts in a municipal cadastre, and then succeeded in raising the land tax revenue from 5 million pesos in 1990 to 70 million nowadays.

The demands for urban services normally exceed the financial capacity of local governments, which makes land taxation a very popular means of generating revenue.

At the same time a government can regulate the land market by *fiscal measures*. Well-known examples are the tax on potential value (which encourages optimal land use), penalty tax on fallow land (which stimulates the use of vacant land), progressive tax (to avoid speculation) and tax-deduction measures for mortgage rents to advance private house ownership, where the Netherlands by the way is on top of the list of favourable tax-relief policy, at least in Europe and probably in the whole world by allowing 100% tax relief of mortgage rents for a maximum of 30 years on the principal residential home. As a sideline consequence real estate prices are very high: where there is a demand, supply adapts.

INSTITUTIONAL CONTEXT

Land administration systems do not always deliver a good performance. They faces difficulties in coping with the above mentioned developments. In many countries experiences unfortunately show that land administration systems are not always up to date, consist of incomplete registers and incomplete maps, are not always reliable, operate slow, bureaucratic, expensive procedures and do not always deliver timely or customer-oriented services. In short: land administration is a worry for many governments and international donors.

The question then is, is there an explanation? Where is the mistake? In our view the explanation is two-fold. First of all, the institutional conditions for land administration leave much to be desired, and secondly the organisation of land administration systems often is poor.

Unlike normal geographical information systems, where physical attributes to land are recorded, land administration systems register rights to land and consequently are dependent on the institutions in which they have to operate. Without an appropriate legal framework, and without transparent public- administration structures, land administration can only make the best of a bad job. When the rules of the game are not clear, how can land administration organisations play the game? How can a land administration system perform when the allocation of tasks and responsibilities regarding land-policy issues is left unclear within the public administration, whether centralised or decentralised. That is exactly what goes wrong in many countries. Poor definition of land tenure forms makes registration difficult. Complex legal procedures for land transfer result in slow and bureaucratic land delivery. Ignorance of legal pluralism in the land law hampers the integration of nonstatutory rights in land, and leaves major parts of countries without any official recording of property rights, especially in indigenous areas. Unclear division of responsibilities between government organisations, between central and local government, causes confusion and passivity. Sticking to legally imposed high precision requirements for boundary measurements hampers the use of low-cost land surveying techniques. Aiming for fully state-guaranteed titling systems in stead of for simple recordingmechanisms for simple transferdocuments requires expensive and long lasting investigation procedures. Unfortunate government regulations for the land market often result in illegal land transfer neglecting the official land registration. Corrupt lawyers, notaries, judges, land officers, and politicians who consider land as a give-away for friends and voters whoever is the owner, don't in any way create an encouraging environment for sound land administration.

In fact the opinion of the world leaders that development is hardly possible without the application of the rule of law and good governance, is dramatically true for land administration. Guarantee of basic rights, separation of powers, legality of the administration, constitutionality of laws, independence of judges, effective law-making procedures, effective enforcement of the law, and the existence of appeal procedures, really are major prerequisites for sound land administration arrangements. This understanding places the land administration activity right at the heart of the comprehensive development issue.

If the institutional framework is conditional for land administration, at the same time we admit that land administration people all over the world do not always seem blessed in the way they organise their business. Lack of skills in data-modeling, process design, information management, strategy development, ICT policy, and business administration just don't contribute to good performance.

CONCLUSION

Applying land administration means that by the actual registration of existing land tenure, a certain *value* is added, namely the certainty that those possessing these registered rights can be certain that their rights will be valid as long as they are not revoked in a legal and comprehensible way. In our view the word 'legal' here means *any system of norms and*

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values which provides transparency, reliability, predictability to a community. Therefore customary or indigenous norms and values (normally unwritten) where rights to land are recognised as legitimate by the community and where rules for allocation, acquisition and transfer are known, are fully eligible for land administration. Even so called informal settlements (whatever form they might occur) are eligible for recording, as soon as land relationships are commonly recognised and considered as being legitimate within the social setting. This explains again that recording or registering relationships from men to land is basically possible whatever jurisdiction is valid, which provides opportunities to integrate statutory, customary and informal arrangements in a land administration system. At the contrary, where relationships men to land are not recognised and where norms and values concerning this arrangements are not transparent, not reliable and not predictable, recording or registration is meaningless. What is left is nothing more than a recording of who actually uses the land as a kind of pseudo-physical attribute to a certain land unit: a land information system providing facts and no legal notions. Our conclusion is that the institutional context is an important success factor for land administration. That is in our view not synonymous with 'complex' and 'detailed', but at the contrary 'as simple as possible'.

REFERENCES

- Barnes G., 1994, LIS Challenges in Latin America, FIG Melbourne
- Bruce J.W. & Migot-Adholla S.E., 1993, Searching for Land Tenure Security in Africa, Kendall Hunt Publishing Company Iowa
- Dale P. and McLaughlin J.D., 1999, Land Administration, Oxford University Press
- Dale P. & Baldwin R., 2000, Lessons Learnt from the Emerging Land Markets in Central and Eastern Europe, FIG Prague
- Fourie C., 1999, Conclusions from a research study, International Forum on Urban Poverty Nairobi
- Groot R. & McLaughlin J.D., 1999, Geospatial Data Infrastructures, Oxford University Press
- GTZ (1998), Land tenure in Development Cooperation, Universum Verlag Wiesbaden
- Lawrance J.D., 1985, Land Adjudication, World Bank Seminar on LIS Washington DC
- Powelson J.P., 1987, The Story of Land, The Lincoln Institute of Land Policy Cambridge MA
- Ting L. & Williamson I.P. & Grant D. & Parker J.R., 1999, Understanding the evolution of land administration systems in some common law countries, Survey Review 35 (272, April 1999)
- UN/ECE/WPLA (1996), Land administration Guidelines, (ISBN 92-1-116644-6), UN Publication Geneva/New York
- UN ECE, Inventory of Land Administration in Europe and North America, London 1998
- Van der Molen P. & Österberg T., Land Tenure and Land Administration for Social and Economic Development in Western Europe, UN/FIG Melbourne
- Youngman J.M. & Malme J.H., An International Survey of Taxes on Land and Buildings, Kluwer 1994

TS7.4 Prof. Paul van der Molen: The Importance of the Institutional Context for Sound Cadastral Information Management for Sustainable Land Policy

BIOGRAPHICAL NOTES

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