Improvement of Customary Tenure Security as Pro-poor Tool for Land Development – A Zambian Case Study

Paul VAN ASPEREN, The Netherlands and Augustine MULOLWA, Zambia

Key words: customary tenure, tenure insecurity, recording, pro-poor, tenure reform, Zambia

SUMMARY

Zambia has a dual land tenure system. The country consists of Statutory tenure (leasehold) and customary tenure. Leasehold tenure is officially registered, land under customary tenure is not. Customary tenure is officially recognized by the Land Act (1995). The paper focuses on land tenure security in rural areas.

This paper gives an insight into some customary tenure systems in Zambia, based on a literature study. Their main characteristics are described and the levels of security discussed. The definition of rights from different perspectives will be given. Differences between tenure systems mainly depend on land use and the societal system (matrilineal, patrilineal). The role of chiefs in land tenure is analyzed. In general customary systems provide sufficient security as long there is no or little interference with the outside world. One important interference is the conversion of customary land into statutory leasehold, however, a long cumbersome procedure has to be followed. Secondary rights under customary tenure will be deprived, leading to insecurity of customary tenure. These secondary rights are however very important for the poor. It will be a starting point to develop methods for recording customary rights at low cost. A unified model is given which enables recording of customary rights. The model will fit for all tribal tenure systems and even the statutory system.

The paper ends with recommendations in order to improve land tenure security: recording of customary rights in conjunction with land tenure reform.
1. INTRODUCTION

Many studies have revealed that title registration is not the only solution to increase tenure security for land development (Zevenbergen, 1998; Deininger, 2003). Fourie (2002) claims that many African land titling systems are not pro-poor and instead support the needs of investors and the elites. In this paper Zambia is studied in detail in order to assess the level of insecurity and which pro-poor tools on land registration are available to improve tenure security and therefore provide a precondition for land development.

First, the land tenure systems in Zambia will be described briefly. It is followed by the description of customary tenure systems, both theoretically and those applicable in Zambia. The security of these systems is addressed, which will be followed by recommendations in order to improve tenure security for the smallscale farmers.

2. ZAMBIA

Zambia is one of the poorest countries in Sub-Saharan Africa: poverty levels are 74% for the rural areas and 52% in urban areas (CSO, 2003).

Zambia has had a dual land tenure system, founded in colonial times. After Independence the dual system continued to exist, basically consisting of Statutory tenure (leasehold) and customary tenure. Latest changes date from 1995, when the Land Act was implemented. The Act introduced the following changes (Mulolwa 2002, Adams):
- Unlike previous laws the Act explicitly recognizes customary tenure, although it doesn’t protect customary rights;
- The Act repeals previous laws and orders-in-council to consolidate Native Reserves and Trust Lands into a new land category, ‘Customary Area’;
- Conversion of customary into leasehold tenure: the Act facilitates the conversion of customary land into leasehold. This is a voluntary procedure and can be applied by any occupant of customary land. This provision is referred to in this paper as conversion of tenure;
- Establishment for a Lands Tribunal and Land Development Fund. The Lands Tribunal was formed to settle land disputes on State and Customary land. Mulolwa reported that a minority of cases were heard in customary areas. Habitat however claims the Tribunal has no jurisdiction to handle cases on customary land. In general, customary land disputes are settled by the headman or village committee.
Leasehold tenure on State land did continue, as ruled through the Lands and Deeds Registry Act. Land can be leased for 99 years. The procedure to get a title from vacant state land is cumbersome. One may hasten the procedure by applying for a provisional title, based on a 14-year lease. State land is generally located in the larger cities and along the so-called line of rail, where soil fertility is good and agricultural markets are nearby (Mulolwa, 2002).

There are a few special categories of land, due to political and economic developments in the past and present, including:
- Land controlled by local council (statutory housing and improvement areas);
- Scheduled and non-scheduled agricultural land;
- Forestry land;
- surface mining areas, national parks and game management areas.
- informal rights in illegal informal settlements.

These areas have specific land tenure regimes and bottlenecks. These specific issues are not discussed in this paper.

3. CUSTOMARY TENURE SYSTEMS

3.1 General

Approximately 94% of Zambia is officially designated as Customary Area. It is occupied by 73 tribes, headed by 240 chiefs, 8 senior chiefs and 4 paramount chiefs (Chileshe, 2005). There is no single uniform set of customs prevailing across the country, however, the term customary law encompasses a host of customs which are somewhat different for each ethnic group (Subramanian, 1998). There is no evidence found in the literature that tenure differs within a tribe between regions or villages. Chileshe (2005) studied several villages within two tribes and no significant differences within a tribe were reported.

Chileshe (2005, citing White 1963) distinguishes four customary systems:
- Societies in which an individual obtains land rights by residence, without allocation through a hierarchy of estates (most common form in pre-colonial Zambia);
- Land holding under the control of lineages: in this system access to agricultural land was exclusively reserved for use by the members who traced their heritage from a common ancestry, like Luvale (NorthWestern Province) and Lungu (Lake Tanganyika).
- Societies in which chiefs exercised direct control over allocation of land with a descending hierarchy of estates, like the Lozi-kingdom in Western Province;
- Feudal systems with landlords and tenants: not existing in Zambia.

Customary land tenure is heavily dependent on the societal system (matrilineal, patrilineal) and more specific on the custom of settling after marriages (uxorilocal, virilocal). These terms are clarified in the glossary of terms.

In general, bare land in customary systems is seen as a gift from God, which belongs to the village. The Land Act, however, rules that all land is vested in the president, so the Act does not recognize tribes as owners of customary land, tribes are merely de facto custodians.
(Chileshe, 2005). The Act states that every piece of land in a customary area held under customary tenure immediately before the commencement of the Act has continued to be so held and recognized.

3.2 Land rights

Chileshe (2005, citing Mvunga 1980) describes three classes of land rights (preferred over ownership) under customary tenure in all Zambian systems:
- individual rights on arable land;
- communal ownership: grazing areas and access to natural resources (which can be timber, brick clay, firewood, wild vegetables, mushrooms, wild fruit, caterpillar, charcoal wood, river water, fish, etc;  
- concurrent interest: parallel interests in the same piece of land, which can be communal and/or individual. Examples: grazing of small livestock on fallow crop fields, cultivation of forest land (owned by charcoal burner, cultivated by farmer).

Only accepted residents have the customary right (Chileshe, 2005):
- legitimate residence in a particular village;
- to cultivate vacant land;
- exclusive occupation for building or cultivation until abandonment or transfer.

Rights are permanent, proven by oral evidence, except transfer, abandonment, death, expelled from community (as might occur when someone is accused of using witchcraft, Chileshe, 2005). It is illegal to occupy vacant land, without lawful authority and any person so occupying is liable to eviction. For customary land, this authority may be a chief’s permission since the chief is a recognized institution by constitution (Mulolwa, 2002).

A share in village land is regarded as a birth right (Chileshe, 2005, citing Parsons 1985), migrant workers may come back to the village and are entitled to land.

3.3 Aspects of customary tenure

Factors influencing customary land tenure are:
- Transfer possibilities;
- Land use;
- Mode of acquisition;
- Inheritance;
- Gender;
- Communal areas;
- Access to natural resources.
They will be discussed briefly in the coming paragraphs.
3.3.1 Transfer possibilities

Generally, informal rights cannot be traded and exchanged beyond the community (Deininger, 2003). In Zambia, one may transfer to anybody in same village community. There is in general no right to sell. Sjaastad (1998) found very few land sales in his study area, Chileshe (2005) and Smith (2005) reported 4.5 % and 11.5 % of land sales (buying as method of acquisition). What is sold are improvements on land such as permanent structures (Subramanian, 1998), bare land is considered to be without monetary value. There is no modern land market, there is a village community internal market for improvements of land, the idea that land is a fully negotiable commodity is not acceptable (Chileshe, 2005).

3.3.2 Land use

Land use is an important factor in the evolution in land tenure. In Zambia, tribes can be linked to the following land uses: subsistence farming, commercial crop farming and grazing livestock. Subsistence farming is often on slash and burn systems (chitimene), crop farming on (semi) permanent fields. Kajoba (2002a) describes the evolution from subsistence farming towards crop farming with an increasing use of fertilizer and tools (hoe, ox plough, tractor). Forest land is also important for firewood, building materials and burning charcoal.

3.3.3 Mode of acquisition

Cultivation is the traditionally accepted way of establishing title to land. Most common methods of acquisition are first clearing of bush land, allocation through headman/chief, inheritance and inter vivo transfers (within the family, gifts). It depends on the local situation (tribe, land use, etc) which mode of acquisition is most common. As said above, buying does happen (Chileshe, Smith, 2005)

3.3.4 Inheritance

Inheritance is a special case of land acquisition. It is really a customary institute as the Intestate Succession Act does not apply to customary land. Inheritance procedures centered on the customary institution of estate administrators, the person or persons (usually matrikin member) designated to apportion the estate according to customary proportions and to maintain it until the beneficiaries take possession (Smith, 2005). Shifting cultivation fields are rarely inherited.

Some farmers seem to prefer direct bequeathment to children instead of matrilineal land inheritance and have pioneered extra-customary methods (inter vivos transfer, wills, and flirting with statutory registration to do so, Smith, 2005).
3.3.5 Gender

Marriage is important for women’s claims and access to land (Chileshe, 2005, citing Whitehead et al. 2003). Women usually work on the subsistence fields, men usually control the commercial crop fields. In case of polygamous marriage, the wife usually controls her subsistence field in her natal village. Women land rights are usually poorly defined of uncertain duration and dependent on good relations with husband and male relatives. Women have very limited access to land under both statutory and customary tenure systems (Subramanian, 1998).

The position of women with inheritance is also reported weak:
Women do not generally inherit land (Subramanian, 1998), however in some tribes it happens (for example Lozi). In matrilineal systems, land reverts to matrilineal relatives, but inheritance is controlled through matrilineal male relatives. This procedure is definitely biased against women (Chileshe, 2005). However, concerning the tribes Tonga, Luvale and Ngoni, the women’s rights are recognized and enforceable, although the widow has no entitlement in the deceased husband’s personal estate.

With divorce, the woman usually returns to her native village, where she is entitled to land. There are also cases, where the field is given to the woman when she has children, or the field is split for both man and woman.

3.3.6 Role of chiefs

Subramanian (1998) claims that the chief stands as a symbol of ultimate ownership. Chileshe (2005) opposes, saying that there is no evidence that a chief owns land. He only has a regulatory role over the acquisition and use of land in the chiefdom. It is evident that the chief has an important role to play. He has the power to allocate land to villagers and newcomers. He also regulates the use of natural resources like communal woodlands and grazing areas. Both Subramanian (1998) and Smith (2005) claim that some chiefs don’t consider the last task very seriously (or do not have the skills and resources), as environmental degradation often happens. This of course depends of awareness for the chief and the community.

4. TENURE SECURITY

4.1 General

Tenure security depends on a host of both objective and subjective factors, including the clarity with which rights and obligations are defined; the quality and validity of property rights records and whether or not the state guarantees them; the precision with which boundaries are demarcated; the likelihood that rights will be violated; and the ability to obtain redress by an authoritative institution in such cases, along with the assurance that whatever measures that institution decides are deemed appropriate and can be enforced effectively (Deininger, 2003).
Because of the absence of recording, state guarantee and land administration institutions, security of tenure in customary systems is often used with reference to the certainty, duration and full rights of robustness of land rights (Smith, 2005). For the duration of rights it is important that it matches the horizon of expected investment. Although boundaries are not recorded land may have communal rights or concurrent interests, so multiple rights may exist on the same piece of land (Deininger, 2003).

Tenure security is important for the following economic reasons (Deininger, 2003):
- Protection against eviction, often equivalent to longer duration of land rights: less resources spent on defense and prevention of conflicts;
- Ability to transfer: increased pay off of investments;
- Access to credit.

In a secure system, no other person can deny a right holder his right, his/her right is protected. Because his/her right is understood within the community, he/she may transfer the right to any other persons, following certain procedures (by state or customary law). Access to credit is possible when the right is used as collateral for financial institutions.

4.2 Zambia

This paper focusses on tenure security in rural areas. Various researchers studied tenure security. Because of the relatively recent change of law, few have looked upon the impact on the introduction of the Land Act 1995 and the effects of conversion of tenure.

Findings from literature on titling and tenure security in rural Zambia are as follows:
- Kanduza (1984) reports confidence levels of ownership by age groups dropping from 85% (age below 20) to 38% (age older than 70). Elderly people apparently feel more insecure than younger ones. This is confirmed by fieldwork of Smith (2005).
- Subramanian (1998): The majority of farmers do not have documents or title to land. (Eastern Province: 94%, Southern Province 75%). Some do have letters from the chief.
- In Mazabuka district: 30.8% of the farmers felt they needed title deeds to secure their land rights (Sjaastad, 1998).
- Sjastaad(1998) found in a sample of 60 that 14 households have been involved in a land dispute (with a majority in an urban region).
- Chileshe (2005) reported on outsiders in a village: they were allocated customary land, but felt insecure, therefore they did apply for title.
- Mulolwa (2002) reported the existence of farm permits, issued by the chief to outsiders. The field had to be inspected by the council, the applicants were charged with an annual fee amounting to the equivalent of 5 U$.
- Smith (2005) found a degree of perceived tenure insecurity, though more so on State Land than on customary land. Desire for title was widespread, even on customary land, but mainly for defensive tenure security (including securing bequeathment), and to some extent for protecting fixed investment. Land tenure security, or putative insecurity, was not cited by most respondents as a direct constraint on agricultural performance.
Security of tenure for access to credit doesn’t seem to play an important role. In terms of security for credit access, the majority of farmers in Smith’s study (2005) felt that title deeds were not necessary to obtain loans. Financial institutions do need security on the interest to be paid, which is questionable in the case of small-scale farmers. Problems also arise when land has to be sold off in case of repossession. There is yet no real land market. Zambian banks do accept a 99 year lease as collateral, however, they are really interested in assets above ground (Smith, 2005). Small scale farmers have other possibilities for using cattle or harvest as collateral for loans or applying subsidized inputs.

4.3 Insecurity of tenure

Various researchers (Smith, 2005; Chileshe, 2005; Mulimbwa, 1993) conclude that within the village community there is reasonable security of tenure, resulting in equitable land distribution. However due to the following external factors, security decreases:

- Introduction of money economy;
- Increasing population pressures;
- Alternative tenure available.

On the last point, Smith (2005, citing Bruce et al, 1982) explains that the appearance of alternative tenure regimes may stimulate a sense of insecurity (or a desire to obtain the alternative) that would not exist in the absence of alternatives. So the introduction of conversion of tenure through the Land Act will have contributed to a higher level of insecurity of tenure in customary areas.

Insecurity of tenure is heavily interrelated with social insecurity, like the weak position of women after divorce or widowhood, and people being chased from the village and their land when they are accused of practicing witchcraft.

4.4 Conversion of tenure

As mentioned earlier, the Land Act provides for the conversion of customary tenure into leasehold. Strictly speaking, land so converted does not cease to be land in a customary area, because the Land act defines the customary area as the areas described in the repealed Schedules to the Zambia (State Land and Reserves) Orders and the Zambia Trust Land Orders (Habitat, 2005). This could only be in terms of the external boundary, but for the intents and purposes such land is taken of the chief’s jurisdiction.

According to Chileshe (2005), the reason for government to introduce the conversion of tenure was its opinion that customary tenure lacks security of tenure because the rights are not clear. Therefore, the possibility was given for occupants on customary lands to apply for leasehold. However, the following negative effects have been observed:

- The population is not well informed about the possibility of conversion of tenure;
- The procedure is bureaucratic, complicated, expensive;
- Rights to access and cultivate to villagers are deprived.
Adams (2003) even claims that leasehold may be no more secure than unregistered customary land.

4.4.1 Information

Some field studies proved the fact that people were not informed about the introduced Land Act (Kajoba, 2002b; Smith, 2005; Chileshe, 2005). Even some chiefs claim that they were not well informed (Adams, 2003). It is clear that the well-informed, usually the elite, have an advantage above the villagers in dealing with land matters.

4.4.2 Procedure

The procedure to convert to State Land is equivalent to the application for a lease. Various articles describe the problems related with this procedure. It has to follow strict survey regulations. There is a backlog in surveying (Mulolwa 2002; Mwanza, 2004).

4.4.3 Deprivation of rights

When leasehold is granted to the applicant, all customary interests cease to exist (both communal and concurrent interests). This is despite the fact that the land will remain in the land category Customary Area. For the villagers this will lead to scarcity of land and natural resources as usually large tracts of land are allocated for conversion to outsiders. Especially the poor who benefit from the so-called secondary rights (access to natural resources), as it is one of the few ways to get food and necessary items to live.

The role of chiefs in the conversion procedure is often discussed. The chief has to give consent for the application of conversion. Theoretically he should ensure that the rights of his people are not endangered. However, this doesn’t seem to be the case. Kachamba (2004) describes the disadvantages of this requirement:
- It is a personal, non-democratic and non-transparent process;
- A chief is not a professional dealing with land issues;
- A chief is generally biased against youth and women, by customary belief;
- Some people claim chiefs are selling land, as applicants for tenure conversion take gifts to the chiefs, which is a customary habit.

As advantages, Chileshe (2005) mentions that little costs are involved, and there is no bureaucracy. Chiefs themselves claim that they are not well informed by the government and do report land grabbing by officials (Adams).

5. PRO-POOR TOOLS

As said in the introduction, land titling systems are not pro-poor and instead support the needs of the elites. This also holds for conversion of tenure. The customary right holders lose their secondary rights and access to land is reduced. Which solutions could be in favor of the local people?
Deininger (2003) suggests that temporary land transfers have a positive impact on equity, being generally pro-poor and beneficial for women. Despite that, rental markets in Southern Africa are rare.

Fourie (2003) mentions the following tools especially for peri urban areas: anti-eviction rights, adverse possession, local level forms of registration/recording and leases.

Van der Molen et al (2004) and van der Molen (2005) mentions village titles, certificates or rights of occupancy, group ranches, flexible titles, land sharing constructions, customary rights issued by Land Boards, co-ownership and communal titles.

Chileshe (2005) recommends greater specification and formal recognition of customary rights. In this way, village communities will be able to control their key resources themselves. Therefore recording of customary rights is needed and tenure reform necessary. He adds that capacity building of the local communities is required as well.

Zambia does recognize customary tenure, however it is not possible to register customary rights by individual or group (Deininger, 2003). Eliminating or replacing customary tenure is often neither necessary nor desirable. However, conversion of tenure leads to elimination of customary tenure. In order to improve security of tenure, it is proposed to record customary rights. Even Mulimbwa (1993) proposed this, before the implementation of the Land Act.

6. RECORDING OF CUSTOMARY RIGHTS

At first it is important to record the customary rights, not only the individual ones, but also the communal ones and concurrent interests. As soon as they are recorded, one can prove the existence of the right in any land transfer or dispute. Formal titling is not the main aim at the start and might prove to be superfluous. As alternative, the rights and documents mentioned by Van der Molen (2004, 2005) might be appropriate.

An important disadvantage of formal titling systems is their huge costs. Such systems are definitely not benefiting the poor, they cannot afford to register for titling in general. The fees to be paid by the right holders should be in line with the value of rights, which are to be secured. Deininger (2003) notices that some minor or temporal rights are rarely formally registered, the cost of doing so would exceed the value of the right. However, even secondary rights with low economical value, may be very important for their holders, as they provide mechanisms for basic survival.

Recommendations for customary land administration are given by Fourie (2002) and Van der Molen et al (2004):
- The system should cater for other needs, like taxation, natural resource management, service delivery, dispute resolution, etc.;
- Local land records should be accessible and in a format that is easily understood by all stakeholders;
- Map all claims in land, even overlapping claims (even conflicting):
- Land administration should be able to accommodate various land tenure arrangements;
- Land administration systems should be able to accommodate a variety of spatial units.
Low cost demarcation can be added as a recommendation. Demarcation is a high cost portion in land registration, so the way demarcation is done has to be studied carefully.

Tuladhar et al (1995) have proposed a low cost registration system, mainly based on the existing registration procedures on State Land. The system is appropriate for speeding up titling or even tenure conversion (the paper has been written prior to the enactment of the new Land Act), but it lacks specific mechanisms for recording of customary interests.

Mulolwa (2002) designed a unified land registry, which facilitates land administration for both customary areas and state land. The model is applicable for all customary tenure regimes, which will facilitate implementation throughout the country. It is an adapted version of the generally used tripartite model based on owner-right-parcel (Zevenbergen, 2002).

![Unified land registry](image)

**Figure 1** Unified land registry (Mulolwa, 2002)

As Fourie (2002) recommends that the parcel definition should be adapted to the local situation, Mulolwa (2002) took land as a resource as starting point, like soil, water, wildlife, etc. Depending on the nature of the right, a specific spatial unit is required. As a result recorded boundaries will vary in terms of quality.

Examples of the other entities in the model are:
- Use: dwelling, cultivation, mining, etc.;
- Quality & Quantity: Size, value, state, etc.;
- Property right: use, ownership, lease, etc.;
- Obligation: tax, rent, etc.;
- Access right: inheritance, clearing bush, planting trees, etc.;
- Holder: individual or group.

In order to implement such a system, the following steps should be taken (Deininger, 2003)
- Legal recognition (which requires land tenure reform);
- Recording of customary rights (with a lesser focus on demarcation);
- Capacity building for local institutions.

The elements of tenure reform will be discussed in the next paragraph.

7. LAND TENURE REFORM

Zambia needs land tenure reform on at least four levels (Smith, 2005):
- For state land, creation of stronger tenure instruments than no-transferable long leases;
- Better administration of such instruments so as to make them cheaply, quickly and transparently available, thus counter-acting tendencies towards concentration of titled land;
- Aggressive promotion of gender equality;
- Exploration of ways to respond to the demand, where expressed, for ‘titles’ (or more generally, for better tenure security) on customary land aside from simplistically replacing customary with statutory tenure.

From the previous paragraphs, the following recommendations can be added:
- Reconsider the role of chiefs in the process; recording should be treated as a village community issue;
- Inform all people on the land policies and ways how their land rights are protected;
- Investigate the possibilities for a larger rental land market, however tenure security is a precondition;
- Minimizing speculation by incentives against or punishment for non-development, as land becomes scarce;
- When conversion is retained, secondary rights should be protected by, either through the inclusion in the leasehold agreement or through compensation of those affected.

Compensation might be a difficult issue, as the group affected might be difficult to assess. In addition the value of the affected rights may also be difficult to assess. Provision should be made for compensation to the village community as a whole, for example a trust fund.

8. CONCLUDING REMARKS

Customary tenure in Zambia is in itself secure for at least the male members of the village community. Insecurity is increasing for women, especially after divorce or widowhood. The insecurity increases due to external circumstances, like population pressures, outsiders acquiring land and commercialization in general. The introduced possibility of conversion of tenure is not in favor of smallholder farmers under customary tenure.

Using land as collateral for investment and rural development for smallholder farmers under customary tenure will be difficult to achieve, both farmers and financial institutions resist to the idea.

The recording of customary rights will contribute to the security of customary tenure, especially against eviction and deprivation. The registration should preferably be uniform, however it should cater for the recording of various tenure regimes on tribal level.
recording should cater for individual land rights, communal land rights and rights on access to natural resources and for both individuals and group owners. Tenure reform is necessary in order for lawful recognition of customary land rights.

REFERENCES


Chileshe, R.A., 2005, Land tenure and rural livelihoods in Zambia: case studies of Kamena and St Joseph, University of Western Cape, Bellville


Kajoba, G., 2002b, Land Use and Land Tenure in Africa: towards an evolutionary conceptual framework, Sustainable Agriculture Initiative Workshop, Council for the Development of Social Science Research in Africa, Dakar


Sjaastad, E., 1998, Land Tenure and Land Use in Zambia, Cases From the Northern and Southern Provinces, Agricultural University of Norway, As

Smith, R., 2005, Land Tenure and Farm performance in Zambia’s Southern province, University of London


UN-HABITAT, 2005, Land Tenure, Housing Rights and Gender - National and Urban Framework, UN-HABITAT, Nairobi

Van der Molen, P., Lemmen, C., 2004 Unconventional Approaches to Land Administration, a point of view of land registrars and land surveyors, Proceedings of Expert Group Meeting FIG Commision 7, FIG, Frederiksberg

Van der Molen, P., 2005, Capacity Development for Land Administration,10 years anniversary Polytechnic of Namibia, Windhoek


GLOSSARY OF TERMS

Matrilineage: When descent is counted along the mother's line (grandmother-mother-daughter-granddaughter). Even though descent is counted from mother to daughter, matrilineal inheritance is normally transferred from man to man: not from father to son, but from a woman's brother to her son.

Patrilineage: When descent (and inheritance) follow the father's line (grandfather to father to son to grandson).

Virilocal: When husband and wife, after marriage, move to the husband's kin's home to live.

Uxorilocal: When a man and woman, after they marry, move to the woman's home to live.

(Source : www.anthrobase.com)

ACKNOWLEDGEMENTS

The authors wish to express sincere gratitude to Dr. mr. ir. J.A. Zevenbergen of Delft University of Technology for his support and his valuable comments and discussions on this paper.
BIOGRAPHICAL NOTES

Paul van Asperen is currently a project leader within the Ministry of Transport, Public Works and Water Management of The Netherlands. He holds a M.Sc in Geodesy from Delft University of Technology. He has been working as a lecturer at the University of Zambia and ITC. He also worked for the National Mapping Agency in the Netherlands. At the moment he is writing his PhD proposal in order to return to academics. His main research interest is land tenure reform in Subsaharan Africa.

Dr. Mulolwa studied at ITC and Delft University of Technology, The Netherlands and obtained his PhD degree in 2002. He has been a lecturer of GIS and land administration at the University of Zambia, Department of Geomatic Engineering, since 1992. He is currently heading the Department and serving as a national consultant for an FAO sponsored integrated land use assessment project in Zambia.

CONTACTS

Ir Paul van Asperen
Ministry of Transport, Public Works and Water Management
PO Box 5023
2600 GA Delft
THE NETHERLANDS
Tel. +31 15 2757080
Fax +31 15 2757576
Email: pasperen@worldonline.nl
Web site: http://www.rws.nl/rws/agi/home/

Dr Augustine Mulolwa
University of Zambia
Department of Geomatic Engineering
PO Box 32379
Lusaka
ZAMBIA
Tel. +260 96 747745 (cell)
Fax +260 1 295530
Email: amulolwa@yahoo.co.uk
Web site: http://www.unza.zm