

MALAWIAN LAND TENURE AND SOCIAL CAPITAL

Preliminary report 2008

Land Scarcity: Disentangling population effects from estate effects

by

E. Berge¹

Research Group²:

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H. Wiig**

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The Research Council of Norway (Grant no 178757) and
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in Malawi)

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Abstract

Increasing land scarcity has multiple impacts. It leads to increasing value of land and in some places to increasing rentals and sales. It leads to disputes about inheritance within families. It leads to increasing difficulties for the customary system of land reallocation as some people, perceiving the value of their land, want to hold on to the land they have inherited, and others want to gain access to more land through rentals and sales.

Two very different processes contribute to the current distribution of scarcity across Malawi. One was the expansion of leasehold estates, though a moratorium was placed on that in the 1990s. The other is the population growth through immigration and innate growth. A new influence derives from the pending land reform policy.

How people react to land scarcity and adapt to its presence may depend on what they see as the main cause of it. The paper will by means of the rich material collected by the MLTSC and NACAL projects explore if it is possible to distinguish the impacts of the two kinds of processes in the kinds of problems experienced by farmers using land under customary tenure.

Key words

Land scarcity, land values, security of tenure, customary land tenure

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Introduction

The basic idea guiding the discussion in this paper is that land scarcity is the ultimate force behind individualisation of land ownership. It is recognized that scarcity is not a fixed ratio of people to land, but depends on soil qualities, water supply and technology available. It is also assumed that the force of land scarcity works across generations to change a way of thinking about land and land tenure. But scarcity in itself may set on within one generation. With growth rates of say between 2% and 3.5%, the population will double every 35 to 20 years, other things being equal.

In an empirical investigation Malawi is a good case because of three particular features:

- There is a clear gradient in land scarcity from south to north. In 1998 there were 146 persons per square kilometre in the Southern Region while there were 46 in the Northern Region. This will to a large extent control for the availability of technology and to some degree for availability of water. Type of land and maybe the quality of the soil may have to enter into the consideration.
- It will be assumed that historically speaking land scarcity is rather recent. In the long history of the Chewa in Malawi it is assumed that land scarcity is beginning to be felt only after the British Protectorate was declared and as a significant force of social change maybe only after independence.
- Between land scarcity and individualisation many factors also intervene and have to be controlled for. Malawi affords control for the possible confounding effect of factors such as system of land devolution. Both patrilineal and matrilineal inheritance of land is present in significant groups of the population. Another confounding factor is access to markets. The data available allows control for this.
- The confounding effect of estate agriculture may be the most difficult to handle. The estates remove land from the ordinary small-scale agriculture. The experience of land scarcity is felt immediately. But the estates also provides work and incomes so that it is possible to survive on less land.

Land scarcity will be measured as persons per unit of an area. After technology, investments in land, and the societal division of labour have been accounted for, the hypothesis is that increasing scarcity will be followed by an increasing pressure towards limiting the number of people able to inherit the land, an increasing pressure on marginal groups to move out of a settlement, and an increasing inequality in power and control of land usage.

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Unfortunately for this paper, the data from Malawi's National Census of Agriculture and Livestock from 2007 is not yet accessible for study. This means we have to confine the discussion here to theoretical possibilities and observations from in dept interviews obtained during fieldwork June-August 2007 in 18 villages systematically selected from the North, Central, and South Region.

Land scarcity

Land scarcity has two components: the available land area and the number of people. The total land surface of Malawi is usually given as 9.42 mill ha. In 1965 some 8 mill ha was classified as customary land, meaning that it was available for traditional agricultural production. Of course, not all of it is suitable for agriculture since it comprises forest and mountain areas not suitable for agriculture. Between 1965 and 2000 the class of customary land was reduced to ca 7 mill ha. In 2002 the government (Malawi 2002) estimated that about 6.5 mill ha was available for smallholder agriculture as customary land.

Distribution of land in Malawi in 2002

	Million ha	%
Parks, Forest, Game Reserves	1.7	18
Estate Lands	1.2	13
Available for smallholders (customary land)	6.5	69
Total land area	9.4	100

In 1967 the population was about 4 million people. Twenty years later, in 1987 it was about doubled, some 8 million people. In 1998 there were close to 10 million people and in 2008 it is estimated to be about 14 million. Internally in Malawi the population growth was uneven. In the period 1980-2000 the Southern Region grew relatively less than the Central and Northern regions. In 1998 the population was distributed with 12% in the Northern Region, 41% in the Central Region and 47% in the Southern Region. The population densities developed as follows.

Population density (persons per sq. km)

	1977	1987	1998
Northern Region	24	34	46
Central Region	60	87	114
Southern Region	87	125	146
Malawi	59	85	105

Source: Malawi in Figures 2007, Zomba: National Statistical Office

Between the mid 60s and 2000 the population more than doubled while the land area available for traditional agriculture shrank by more than 10%. The transfer of land out of customary control was not the same in all regions and did not affect traditional agriculture quite as much as the figure alone might suggest. Much of the land taken out of customary control was forest and mountain land reclassified as forest reserves and national parks, but much was also transferred to commercial agriculture. The transfer to commercial agriculture was done by government, reclassifying customary land as public land, and then leasing it to entrepreneurs. Around 1990 a moratorium was placed on this practice. It is not apparent from the available statistics exactly how much land was transferred to the estate sector in this

way or where it was located. But a large part of it may have occurred in the central region.

Depending on the technology available for food production and the size of the available surface per capita, people will judge the severity of scarcity. The most significant technological development in this period is the introduction of mineral fertilizer. The introduction of high yielding hybrids of maize boosted production enormously. Since the high yield depends on supply of both water and fertilizer, a key factor to watch would be usage of fertilizer. But the role of the hybrid maize and fertilizer in forcing or retarding a cultural adaptation to land scarcity is difficult to judge. The distribution of the inputs is not a simple task and has over time been neither consistent nor seen as equitable⁸. One consequence of an increasing use of fertilizer would be an increasing dependency on government and NGOs for the supply of fertilizer. The cost of fertilizer for most ordinary farm households would be too high for sufficient supply even with some subsidy from the government, and this will increasingly be the case as population grows. The subsidization of fertilizer helps. It postpones the humanitarian crisis of too little land, and affords people some time to adjust their thinking to scarcity, maybe as much as would have been obtained by slower population growth.

An index of land scarcity sums up, and confounds the effects of these three long term trends: population growth, land transfer out of customary cultivation, and availability of fertilizer. There is no doubt that the political system affects these three to a variable degree. Supply of fertilizer has been, and is, subject to controversy, and has fluctuated from year to year. Transfer of land to commercial agriculture was at a high level for a period during the 70ies but has now stopped, and to some extent the trend has been reversed by resettlement schemes on failed estate lands and some local repossession of vacant estate lands. Population growth has come down a bit, but still the population will double every 30-40 years or so if growth continues as before. The impact of HIV/AIDS on population growth is uncertain and the incidence is also uneven across the country. Malaria and malnutrition are probably of more importance. But good cause of death statistics is not available. The upshot of this, however, is that improvements in health and nutrition can only boost population growth and increase the pressure from scarcity.

The reason for focusing on land scarcity in this paper, however, is neither population policies, nor land policies. The reason lies in a desire to understand how ideas about land tenure and popular ways of thinking about land are affected by increasing levels of land scarcity. In all agricultural societies the availability of land for food production for the household, and the availability of land for the children as they grow up, are primary issues⁹. But the form and strength of this worry is contingent on past experiences. A constant and accustomed level of insecurity has less impact than the

⁸ One well-crafted effort was called the Starter Pack program. It provided the best technical 'package' adapted through intensive research projects in the country (funded by Rockefeller) to specific areas. It has been assumed that it would -- if maintained over a long enough period -- manage to push people over a kind of threshold so they could avoid the vicious cycle many are now in. For more see Levy (Levy 2005)

⁹ Macfarlane (1998, in Hann 1998) notes, in discussing the anomalous developments of England and Japan, "In most civilizations, including China, India, and countries under Roman law, the first call on land is the next generation, the blood line." (p120) .

experience of an increasing level of insecurity. Thus increasing levels of land scarcity will be taken as an indicator of increasing levels of insecurity. This means that we ideally have to compare current levels to levels of scarcity from some 1-2 generations (20-50) years ago.

In a recent study by Potts (2006) we find population densities for the 6 districts where we collected in dept interviews on land tenure during the dry season of 2007. The gradient from south to north, and from near urban to far from urban districts, is very clear (Chiradzulu is closer to Blantyre than Phalombe, Dowa is closer to Lilongwe than Kasungu, and Mzimba is closer to Mzuzu than Rumphu). The distance from urban centres is important as control for the access to markets. Access to markets is maybe the most important way for escaping from land scarcity. By finding supplementary jobs or occasional jobs, or by taking education and finding employment in the formal sector, people can supplement their own production with money income.

Table 1

Malawi: population density by district, 1977, 1987 and 1998 (people/sq. km).

	1977	1987	1998
Malawi	59	85	105
Northern Region	24	34	46
Rumphu	11	20	27
Mzimba	29	42	59
Central Region	60	87	114
Kasungu	25	41	61
Dowa	81	106	135
Southern Region	87	125	146
Chiradzulu	230	275	308
Phalombe ¹⁰	122	156	166

Source: Potts (2006)

Language and understanding

Elias (1991) argues that language, thinking, and knowing are three sides to the same issue. They cannot be separated. Hann (1998) raises in several ways the problem of translating indigenous property rights concepts to English. In Malawi we meet the problem of translation in two ways. First we meet it in coming to understand the thinking that is embedded in the local language, Chichewa and related languages¹¹. Second we need to understand the distortions introduced by application of the English legal language to describe land tenure relations for example in customary law (Ibik 1970, 1971).

¹⁰ When Phalombe was created out of Mulanje, boundaries adjustments had to be made to areas under the jurisdiction of the TAs in what became the new district boundaries. Jurisdiction of TAs does not extend beyond boundaries. Whenever a new TA is created boundaries are adjusted and the new area of jurisdiction specified. Thus when the Mwase chieftaincy in Kasungu was revived Kaomba and Lukwa found themselves losing land to him. (Paul A. K. Kishindo, personal communication).

¹¹ The major languages of Malawi are Chichewa/Chinyanja, Chiyao, Chisena, Chitonga, and Chitumbuka

There is no obvious solution to this problem of translation. As far as Elias is correct, that knowledge and understanding is identical to the language as used, translating would require a meta-language encompassing both English and Chichewa. Another suggestion by Elias may provide a partial solution. He suggests that languages, or rather ideas and concepts embodied in a language, varies in reality-congruence. This reality congruence can be applied both to the material reality of things and to the institutional reality of social power (Searle 1995). The fact that the language of formal institutional power in Malawi basically is English is of course important, but the idea of reality-congruence goes deeper. The important characteristic of a language is ability to impart understanding of a dynamic reality in ways that makes the community (not the individual, but the language community) able to orient itself and adapt to the dynamics in and of an environment. For land tenure in Malawi today this means that the language for example must be able to describe land scarcity in ways that makes people able to adapt to this scarcity. As part of the legal language such a description also need to be flexible enough to deliver a reasonable level of justice.

An investigation of Chichewa and its ability to deliver an adequate description of land scarcity remains to be done. Provisionally we shall continue using the English language approximations. In this we include a stylized reading of Malawian history.

Emotional foundation for reorientation to scarcity

Without spending time, at this moment, to argue the case, it is assumed that in the hierarchy of motives two worries will dominate:

- People worry about supply of food, and more for the near future than the more distant.
- Parents worry about the future of their children.

If food supply is perceived to be threatened some action will follow. If opportunities for improving on the prospects of children appear, they will be taken.

Consequences of scarcity

As the belief in readily available lands disappears the worry about sufficient lands for current and future food supply will lead to some kind of action in the hope of adapting to the new realities. The action chosen will depend on the perceived causes. As discussed above 3 causes are obviously present.

- Land transferred to public land/ estate agriculture
- Missing or variable supply of subsidised fertilizer
- Population growth

Where people have seen land being transferred to public land, the experience of scarcity will increase the temptation to encroach on the lost land as well as political action to regain legitimate access to it.

Supply of and pricing of fertilizer is a political issue high on the agenda. Successful supply of fertilizer will postpone the impacts of land scarcity on land tenure and fluctuations in rains and soil fertility may mask it. But ultimately, at best, fertilizer will shift the threshold where scarcity comes to be seen as a serious problem. But such a shift may be crucial in a process of adaptation. While the uniform population growth will shift the situation from enough land to insufficient land in one generation, supply of fertilizer and other types of technology like irrigation will buy time to adapt to the

scarcity situation. One powerful factor here may be the demonstration provided by variations in fertility and mortality. Population growth may be difficult to observe by individuals. But the differences between households with many children and households with few are easily seen.

The pressure due to population growth will be felt most strongly in households with many children and in “villages”¹² with no more vacant land for new households. Households with few children will not feel the pressure to the same degree. But they may in a more conflict prone environment be vulnerable to pressure from households with more manpower appealing to old practices of abandoning “surplus” land to those needing it. The actions chosen by those who feel the scarcity may include both increased application of fertilizer, buying, renting, and lending in of extra land, as well as encroaching on public land. Those who do not feel the pressure on the personal level will still react to those who do feel the pressure, and would be expected to look for remedies to defend their current holdings.

One must expect to see redefinitions, or reinterpretations, of the group that may inherit the land that people currently possess¹³. Some may want to make the group that can inherit smaller and more focused on direct descendants, others – those with large households – may emphasize the old rules about redistribution of land. While some will downplay a duty to provide land for nephews or nieces compared to the duty to provide land for own children, others will look for vulnerable people that can be forced off their land.

At the village level land scarcity may be expected to affect public opinion on the issue of “newcomers” or people that in other ways can be defined as marginal and with little social power. A reinterpretation of their tenure relations and efforts to force them to abandon their lands may increase. The increasing level of conflicts between households and between lineages will, other things being equal, be expected to lead to less trust in fellow villagers.

Relative abundance and conflict resolution

The variable but ultimately inexorable decline in available land per capita has its history in relation to population growth, technology, production system, and political system. That story has to be investigated elsewhere. In this context, looking for how a way of thinking about land tenure develops, let us just note that the significance of land scarcity foremost is a relative phenomenon. In the development of a way of thinking it is important to see that the significance of land abundance is not that land is without exchange value or that all lands are equally valuable, but in the exit option it provides. If the community grows too big or if there appears a political rift, a section

¹² The quotes around village is there to signal that when we translate the local languages as village we are shifting our mind frame from the Malawian one of lineage/ family settlement to our European one of small population agglomerations. This will, particularly in land tenure matters, bias our perceptions. Where a Malawian villager see family/ lineage lands, a European will see community land. The problem of “ownership” rights will correspondingly seem different. The question of loyalty to commands from your village leader uncle or grandfather will seem a bit different from the loyalty to a similar command from an elected mayor. And the question of authority, loyalty, and trust is at the core of a host of questions in economic development, not only security of tenure.

¹³ This was rather apparent in many interviews in the Central Region. The ideas about inheritance was not consistent with tradition and displayed a clear preference for own children of both sexes to inherit.

of the established community may move to virgin lands and start a new settlement. In local disputes the impetus is not to find a compromise that all parts can live with, it is to win. The way of least resistance for the losing faction will be to either submit or secede¹⁴. One possible implication of relative land abundance is thus that cultural / institutional mechanisms for solving collective action problems would be undeveloped or weakly developed. Large-scale collective action, such as building large-scale states, would in such circumstances require particular leadership skills and charismatic powers.

From abundance to scarcity

The European way of thinking about land has for more than a millennium adapted first to land scarcity then to industrial production based on an extensive division of labour¹⁵. The cultural legacy of Malawian land institutions, the ways of thinking about land among for example the Chewa, and how they relate to land, is not well documented¹⁶. Hence, here it is just assumed without much argument that since late 19th century an increasing number has felt the reality of scarcity and that today we are at the beginning of a cultural shift from abundance being taken for granted to scarcity being taken for granted. Therefore the approach taken here will have to start from more general observations on land tenure and customary law in African countries as well as more general observations on customary law.

A basic fact is that in the last decades of the 19th century Malawian peoples met with European thinking about land and land tenure on a fairly massive scale by for example the rapid growth of estate agriculture and the concomitant colonial administration. The two ways of thinking about land cannot have been compatible. But compared to many other parts of Africa the pressure for change seems to have been less due to the indirect rule approach of the British Protectorate. It is the assumption that Malawi now one hundred years later is at a crucial point in this process, maybe close to the turning point and that we can study this shift in thinking by both the urban-rural dimension and the north-south dimension.

Power and land control

According to Sahlins (1972:92-93) the power relations of “the two systems of property work differently. In one system, the chieftainship system, a right to things is realized through a hold on persons. In the other system, the bourgeois property system, a hold on persons is realized through a right to things.”

- **Chiefly “ownership”** means control of producers, which indirectly provides control of means of production and product.
- **Bourgeois “ownership”** means control of means of production and product, which indirectly provides control of producers.

¹⁴ Relocations have both push factors and pull factors. The push is often too little land where a family or lineage lives for the moment. This may initiate a search. Finding a Chief with sufficient land and willingness to grant them land will then pull them into a particular location. We heard stories of “villages” that had relocated several times during the last 3-4 generations.

¹⁵ Good starting points for a discussion of this might be Berman (1983), Macpherson (1962), or Macfarlane in Hann (1998).

¹⁶ This conclusion, however, is not based on extensive research. Starting points have been the Saidi commission’s report (Saidi 1999; Misisha 1999), and Ibik’s investigations of customary law (Ibik 1971). It is an impression that has accumulated. Also see (Kishindo 1993, 2006) and (Peters 1997, 2004, 2006).

To increase power the main problem for chiefs in the ideal typical small-scale society in equilibrium as described above, is to command and control a sufficient number of people. The command of the means of production (such as land) is incidental to this. The main problem for the bourgeois property owner is to command and control sufficient land and its produce, the command and control of people is incidental to this.

For chiefs intending to control people the problem of loyalty must be at the forefront. With a strong tendency to dispersal, loyalty is not something that can be taken for granted. Its most well know form is created in the family between parents and children. Recruiting people within the family is thus the first option. Two ways of expanding on this would readily be available: The chief with many sisters and daughters may marry them off to those whose loyalty he wants to secure. The chief with mostly brothers and sons may increase his number of loyal people by having more wives for each. The two possibilities may easily, by the tendency for dispersion inherent in the economy, be separated into matrilineal and patrilineal cultures. Landholding will appear very different but ultimately be incidental to the system of power over persons. Malawi have in the south clearly expressed matrilineal cultures and in the north as pronounced patrilineal cultures. Rules for devolution of land will be fundamentally different in the two cultures. But will ideas about individual rights develop differently in a situation of scarcity? The observation that some communities may shift from patrilineal to matrilineal family forms in a relatively short time (historically speaking) suggests that in a theory of how people think about, and behave in relation to, land, patrilineal or matrilineal family form does not play a major role.

With the entry of the European settlers, with their colonization and cultural hegemony, three developments affected the traditional way of thinking simultaneously. First there is an “artificial” development of land scarcity from transfer of land to commercial estate agriculture; secondly there is a de-legitimization of the traditional powers over persons; thirdly there is a preferential treatment of patrilineal devolution practices¹⁷; and fourthly modern health and nutrition become available¹⁸.

¹⁷ Carr (2006) observes: “I worked with another Bank retiree to carry out the audit of LLDP in the early '90s and spent some weeks on the job. Our first concern with the land registration was why titles were issued to males in a matrilineal society. I was lucky enough to track down the one senior Malawian who had been on the staff when it was initiated (all the other senior staff were expatriates). He gave me an instantaneous response: “The first Project Manager (an Englishman) had been convinced that the reason why men did not work as hard as he would have liked on the land was because the land was in the hands of the women and so he sought to change the situation dramatically”. We found no evidence whatever of the fact that the change in nominal ownership had any impact on men's attitude to farming.” (We have been unable to track down the audit of LLDP referred to).

¹⁸ With the introduction of modern medicine and environmental controls the doubling time for populations would easily come down to 20 years (3.5% annual growth). At some point in time people will experience a shift from too few people to too many in less than one generation.

The land scarcity is in this situation immediate, manifest, and observable¹⁹. This is so whether the scarcity is due to estate agriculture or to a population explosion. But the social and political repercussions originating from the scarcity may take different forms. Political and revolutionary action against commercial agriculture is only one possibility. Another and rather inevitable development is struggle over inheritance. The internal devolution from parents to children and distributional questions internally to households and families becomes a problem when the family holding in reality is insufficient for the number of people with customary rights to the land. When all have too little land further subdivision will not help anybody. However, the process will be embedded in efforts to adapt by both supplementing the household production with income from work, and from increasing the production through improved technology such as irrigation, hybrid corn, and fertilizer.

The distribution of children across families will have some interesting consequences. Some families have few children others have many, some families have mostly boys others have mostly girls. Matrilineal girls in families with a majority of boys will do better than girls in similar size families with mostly girls. In patrilineal families boys with mostly sisters will similarly do well compared to those with mostly brothers. At crucial points in time when the scarcity becomes a strongly felt factor such demographic fluctuations may create observable differentials in land holding. We shall have to check for the impact of sex ratio and size of households. The causal factor, however, will be the sex ratios of the families of the landholding person, one generation ago. So relevant data will not be available.

In struggles internal to families chiefs find themselves on the sideline. And in the formal state system their traditional power over persons is seen as suspect and maybe in decline. Again one may see several approaches for the chiefs to counter their loss of power. One approach may be to embrace modernity and its democratic system of power. Once in position this power can be used in traditional ways, rather unhelpful to a larger project of social and economic development, but consistent with their conception of what chiefs are supposed to be able to do. Another approach may be to work in the symbolic sphere making people behave according to the chief's bidding by means of charismatic abilities and symbolic powers. Both approaches tend to forget about land scarcity as such. Land tenure continues to be incidental to the control of people. But some will see the possibility of the estate agriculture, obtain control over land and will in this process discover that in a situation of scarcity it leads to control of people. In this field, however, they have competition from outside the ranks of the traditional chiefs. Whose cultural precepts will prevail? How can judicious legal interventions shape developments?

Rate of change in density

The growth in scarcity is uneven. It is uneven over the geography as seen in the north south gradient. And it is uneven historically due to the many conjunctures of events: migrations, removals of land from small scale agriculture, and internal

¹⁹ The shift from land abundance to land scarcity can perhaps be viewed as a phase transition, a bifurcation of history. But the bifurcation is not so much material as cognitive. Thinking has to shift in all sorts of ways. Ultimately the shift may involve a shift in the view on power to match the bourgeois pattern noted by Sahlins (1972). This can hardly be effective unless the production of loyalty shifts from the family sphere to the institution providing security of tenure for the right to control the use and usufruct of the land.

population growth. The ability of societies to adapt to changing environments is considerable. The ability for Malawian society to adapt to land scarcity is undoubted. But the ability to adapt does depend on the timeframe available for adaptation. The more rapid the onset of the scarcity, the more difficult the adaptation will be. Comparing population densities between 1987, 1998 and 2007 may give an indicator of where the scarcity has grown fastest. We will expect that there are more problems and disputes about land matters and uncertainty about the future of land availability where scarcity has grown most rapidly, independent of the level of absolute scarcity.

A preliminary summing up

It would seem reasonable to assume that other things being equal a rise in scarcity past a certain threshold will lead to a rise in perceived insecurity of tenure. From this perception opinions and beliefs will change and ultimately actions will change. The argument, put briefly, is that

- Supply of food per person declines,
 - perceived insecurity increases
 - conflicts around food producing resources increase
- Supply of land for children declines,
 - conflict levels among siblings increase,
 - conflict levels within lineages increase
- Increasing village level inequality in land per person in the HH,
 - conflict levels between households increase
 - trust and solidarity within the villages declines

The measurable quantity here is the ratio of land to people, qualified as well as possible. A reasonable level of measurement would be the traditional authority area (TA), since the Chief is the primary customary law land authority for all villages within his area. After control for intervening factors the pressure from land scarcity (a lower ratio of land to people) will show a distinct co-variation with indicators of perceived insecurity, conflict levels, trust and solidarity.

One of the difficult intervening factors is the presence of estate agriculture within the economic horizon of a village. While the estate removes land from customary agriculture it also provides work that may supplement the close to inadequate ordinary production of the poorest households in the villages. The number of workers employed will be a necessary additional factor to control for in looking at the link between scarcity and experiences of its impact.

Estates are also important since they introduce a politically sensitive factor in the growth of scarcity. How thinking about scarcity is affected is difficult to judge. Some conflicts around devolution of land within families and lineages will probably be unaffected. But at a higher level the development of formal institutions may perhaps be retarded by the argument that estates will provide land if they are returned to the people. Resettlement programs might be seen in this light.

Estate effects in the scarcity dynamic

Finding out about the development of the estate sector is not easy. Between 1985 and 2000 no figures have been found. Here and there we see glimpses. The World Bank notes in 1987 (World_Bank 1987) that between 1977 and 1983 the estate sector grew rapidly with an additional 400,000 ha transferred to tobacco estates

alone. So far we have seen no consistent numbers making it possible to judge the rapidity and regional distribution of the estate agriculture. It is hoped that the NACAL figures may provide possibility for taking account of the presence of estates locally.

The figures presented below are collated from 3 different sources, two of them secondary. They should be treated with caution. But they may be the best we have to judge the historical trajectory of the estate sector which is located in the category leasehold/ freehold. The certificates of claim issued by the first British administration became in time recognized as freehold tenure. While this in 1894 was estimated to cover some 15% of the surface many processes worked to reduce it. By the time of independence it was down to some 2%. The decline of freehold continued and was in 2000 estimated to some 0.7%. Leasehold was set to 3.1% up from near zero at independence.

Land classes in Malawi. Percentage of three official types of land at some point in time between 1894 and 2000

Source ²⁰	1894	1920 ²¹	1958	1961	1965	1970	1974	1975	1977	1980	1981	1985	2000
Customary	--	76,1	--	87	85.0	81.6	80.7	79.9	79.8	79.6	79	78.6	74.7
Public	--	0,4	--	11	12.4	16.3	16.7	17.6	18.1	18.0	--	--	21.4
Leasehold/ Freehold	15	23,5	3	2	2.5	2.1	2.6	3.6	2.1		--	--	3.8
Total		100		100			100		100				99.9

From the figures above one may conclude that the largest loss of customary land occurred between 1961 and 1974 and between 1985 and 2000. During the first period most of the conversion might have been to create protected areas rather than land for lease to estates. Thus the largest growth rates in estate agriculture might have been in the late 1980s until the moratorium on conversion was put into effect.

²⁰ Sources: Shaw (1985) Table 2 and Statistical Yearbook 2004, table 1.1 for 1965, 1970, 1975, 1980, and 2000; it is notable how the statistics disappear between 1980 and 2000.

²¹ All figures from 1920 are taken from Msisha (1999), page 19. The figures given by Msisha do not add up. The area owned by British South Africa Company in North Nyasa is obviously also included in the figure of land owned by private owners. Even so the total land area is 93 acres larger than the sum of the subcategories. And the total land area figure is larger than the official size of Malawi today (9,398,721 hectares). The difference of 783,948 hectares or 1,937,177.7 acres is unaccounted for. It amounts to 8.3% of the total, and may have an impact on the percentages presented here. It may account for the difference in leasehold and freehold between 1894 and 1920.

Some preliminary observations

Based on recent access to some preliminary data from NACAL we shall investigate the basic geographic distribution of some of the correlates of scarcity.

Table 2

Malawian households expressing 1) Fear that land may be taken away, 2) Fear that their land might be encroached upon, 3) Having had a dispute over land with someone during the last 10 years.

Preliminary data from the 2007 Malawian Land Tenure and Social Capital study.

DISTRICT	Relative distance from city	Density 1998	Taken away	Encroached	Dispute	N*
Rumphi	Far	27	22.2%	33.3%	28.9%	45
Mzimba	Near	59	6.7%	13.3%	17.8%	45
Kasungu	Far	61	24.5%	22.9%	22.4%	49
Dowa	Near	135	6.0%	16.0%	22.0%	50
Chirazulu	Near	308	4.2%	6.3%	25.0%	49
Phalombe	Far	166	22.2%	37.8%	20.0%	45
Total		105	14.2%	21.4%	22.6%	283

Distance from one of the big population centres (Mzuzu, Lilongwe, and Blantyre) seems to correlate strongly with expressions of fear. But the level of fear seems rather independent of density in 1998. An interesting question then, since we do not expect density levels per se to have an impact, but rather changes in density, is to see if rate of change in density between 1998 and 2007 can be seen to have an impact as expected. This question will have to wait for a more in dept study of the data from the 2007 National Agricultural and Livestock Census of Malawi (NACAL). A preliminary study of these data shows a pattern similar to the one above. Interestingly enough, comparing answers to the question about fear of having land taken away in Chiradzulu and Mzimba, the answers in Chiradzulu frequently provided more explicit reasons why they did not fear, emphasizing inheritance and registering with the village head. However, they did fear losing land by renting it out. In Mzimba we were most told that they did not fear losing their land and had not thought much about registering it. The few in Chiradzulu that expressed fear of losing their land linked this to their status as "strangers". A male yao expressed it thus:

"I fear that I may lose land just like my grandmother did. She lost land to the CX family, cousins to the village head. The land used to belong to my late mother CH who bought it from MM, aunt to the village head. Two years ago I was threatened by the same people who took the two gardens from my grandmother saying 'iwe obwera tidzakulanda watsala nako kaja' (we will grab the remaining land). These words came to me from the CX's sons. I did nothing since they are very close to the village head."

The ability to provide good reasons for having no fear losing land suggests that the topic has been discussed extensively enough for most people to grasp the problem. This is one sign that scarcity has affected thinking about land holding. The fear of losing land by renting it out is also interesting. It is discussed more in dept in Smette's paper in another session here.

Table 3

Malawian households expressing 1) Fear that land may be taken away, 2) Fear that their land might be encroached upon, 3) Having had a dispute over land with someone during the last 10 years. Preliminary data from the 2007 NACAL, NSO, Malawi (See table A1 below).

DISTRICT	Relative distance from city*	Density 1998	Taken away	Encroached	Dispute	N*
Rumphi	Far	27	30.9%	26.7%	23.7%	636
Mzimba	Near	59	16.0%	18.9%	19.3%	903
Kasungu	Far	61	28.0%	26.2%	15.7%	997
Dowa	Near	135	19.6%	24.3%	17.8%	872
Chirazulu	Near	308	23.7%	16.3%	13.2%	770
Phalombe	Far	166	22.6%	11.9%	11.1%	746
Total		105	21.4%	20.1%	14.9%	24111

*Mzuzu, Lilongwe, Blantyre

The urban rural gradient is there for the north, but not for the south region, while central seems ambiguous. Obviously there are many intervening factors in the chain of causation from density. One factor here is the relatively shorter distances to urban centres. Even if Phalombe is relatively far from Blantyre, parts of it are relatively close to Zomba which is large enough to provide income possibilities as a supplement.

Table 4

Average landholding in hectares per household in various districts. Preliminary data from the 2007 NACAL, NSO, Malawi (See table A2 below).

District	Relative distance from city*	Density 1998	N	Valid N	Minimum	Maximum	Mode	Median	Mean
Rumphi	Far	27	624	583	0.02	5.53	0.40	0.62	0.780
Mzimba	Near	59	884	864	0.00	11.64	0.40	0.78	1.024
Kasungu	Far	61	972	939	0.01	8.53	0.22	0.85	1.097
Dowa	Near	135	864	814	0.00	5.21	0.50	0.78	0.944
Chirazulu	Near	308	759	722	0.01	3.41	0.19	0.40	0.525
Phalombe	Far	166	746	723	0.01	6.07	0.43	0.49	0.698
Total for Malawi		105	23896	22173	0.00	11.96			0.706

*Mzuzu, Lilongwe, Blantyre

If we look at the landholdings of households in the various districts the north and central districts do not seem very different. But south districts are obviously lower than the others are. Both the median and mean of landholding show the same pattern of regional variation. Interestingly the mode is clearly lower than the median which is lower than the mean. This means few large holdings and the most frequent size of a holding is less than the median.

Table 5

Presence of unallocated lands (chilala) and estate lands within walking distance of the village

Preliminary data from the 2007 Malawian Land Tenure and Social Capital study.

	Density 1998	Unallocated lands within walking distance				Estate lands within walking distance			
		Count of 1	Row%	Count of 2	Row%	Count of 1	Row%	Count of 2	Row%
Rumphu	27	63	33.0	128	67.0	76	39.4	117	60.6
Mzimba	59	195	69.1	87	30.9	98	34.4	187	65.6
Kasungu	61	227	64.5	125	35.5	171	48.0	185	52.0
Dowa	135	159	60.5	104	39.5	40	15.1	225	84.9
Chirazulu	308	41	19.7	167	80.3	37	17.8	171	82.2
Phalombe	166	33	43.4	43	56.6	11	13.8	69	86.3
Total	105	2552	46.7	2702	49.4	1349	24.7	3915	71.6
Missing					215				205

Comparing Rumphu and Mzimba they both have about the same presence of estates but Mzimba has twice as often unallocated lands and twice as high density. This would seem to ask for further investigations. Kasungu shows up as the big estate district. Dowa, Chirazulu and Phalombe have about the same presence of estate lands. The drop in presence of unallocated lands come between Chirazulu and the rest, that is between a density between 166 and 308. The presence and absence of unallocated lands can of course not be expected to show a linear relation to density. The interesting question is at what density the unallocated lands are gone.

Concluding remarks

This is a first report from work in progress. The data analysis has just started. Basically we cannot conclude about anything yet. During the next year more in dept studies will be produced.

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TABLE A1

% HH with any dispute with anyone over land in past 10 years

% HH with fear that own land will be taken away

% HH fearing their land might be encroached upon

DISTRICT	Taken away	Encroached	Dispute	N*
Chitipa	13.8%	13.7%	13.4%	627
Karonga	15.4%	18.0%	21.2%	693
Rumphi	30.9%	26.7%	23.7%	636
Nkhata Bay	20.2%	19.0%	15.3%	643
Likoma	27.9%	18.0%	11.5%	61
Mzimba	16.0%	18.9%	19.3%	903
Mzuzu City	22.1%	24.1%	14.1%	452
Kasungu	28.0%	26.2%	15.7%	997
Ntchisi	28.0%	29.2%	21.5%	705
Dowa	19.6%	24.3%	17.8%	872
Nkhota kota	25.7%	22.5%	14.0%	701
Salima	20.2%	20.8%	14.7%	702
Dedza	24.3%	22.7%	14.2%	1080
Ntcheu	21.3%	17.3%	16.2%	887
Lilongwe Rural	30.8%	29.2%	16.4%	1740
Lilongwe City	18.7%	20.9%	12.3%	457
Mchinji	25.8%	30.4%	15.7%	762
Balaka	21.6%	21.2%	20.3%	765
Mangochi	22.0%	19.3%	10.3%	1318
Machinga	15.2%	12.7%	12.7%	885
Zomba Rural	20.9%	15.2%	11.7%	1119
Zomba Municipality	16.8%	16.6%	10.4%	439
Chirazulu	23.7%	16.3%	13.2%	770
Blantyre Rural	18.0%	17.3%	13.2%	839
Blantyre City	26.0%	32.9%	14.3%	387
Thyolo	23.0%	17.1%	17.1%	964
Mulanje	16.3%	10.8%	12.0%	968
Phalombe	22.6%	11.9%	11.1%	746
Mwanza	20.8%	21.5%	14.4%	618
Chikwawa	20.9%	24.6%	17.2%	789
Nsanje	23.6%	24.5%	18.2%	586
Total	21.4%	20.1%	14.9%	24111

N includes missing: Taken away had 751, Encroached had 776, and Dispute had 724. Percentages are computed with missing excluded from preliminary data from NSO, NACAL 2007, National Statistical Office, Zomba

TABLE A2

Mean size of landholding in hectares per household for each district. The difference between N and valid N provides the number of missing observation on total household land holding.

District	N	Maximum	Median	Minimum	Mode	Sum	Valid N	Mean
Chitipa	620	9.91	0.82	0.00	0.31	594.32	609	0.976
Karonga	682	4.49	0.42	0.01	0.22	326.96	566	0.578
Rumphu	624	5.53	0.62	0.02	0.40	454.91	583	0.780
Nkhata Bay	627	3.89	0.44	0.02	0.22	354.50	574	0.618
Likoma	60	0.33	0.06	0.00	0.01	4.00	60	0.067
Mzimba	884	11.64	0.78	0.00	0.40	884.46	864	1.024
Mzuzu City	449	4.17	0.40	0.00	0.40	149.69	307	0.488
Kasungu	972	8.53	0.85	0.01	0.22	1030.53	939	1.097
Ntchisi	700	8.21	0.72	0.00	0.22	645.64	680	0.949
Dowa	864	5.21	0.78	0.00	0.50	768.64	814	0.944
Nkhota kota	691	5.30	0.43	0.00	0.22	445.31	660	0.675
Salima	702	8.21	0.52	0.00	0.22	556.49	669	0.832
Dedza	1078	3.54	0.59	0.02	0.37	783.77	1069	0.733
Ntcheu	883	5.95	0.51	0.01	0.22	494.53	815	0.607
Lilongwe Rural	1735	7.22	0.61	0.00	0.22	1400.20	1693	0.827
Lilongwe City	448	3.86	0.22	0.00	0.22	141.93	385	0.369
Mchinji	756	11.96	0.65	0.00	0.22	627.55	725	0.866
Balaka	761	4.91	0.55	0.00	0.22	492.55	711	0.693
Mangochi	1301	5.15	0.49	0.01	0.22	781.29	1232	0.634
Machinga	882	4.05	0.43	0.01	0.22	357.92	651	0.550
Zomba Rural	1109	4.22	0.54	0.00	0.43	733.87	1057	0.694
Zomba Municipality	435	1.39	0.22	0.00	0.22	117.91	395	0.299
Chirazulu	759	3.41	0.40	0.01	0.19	378.96	722	0.525
Blantyre Rural	836	4.62	0.39	0.00	0.22	390.98	778	0.503
Blantyre City	382	3.12	0.21	0.00	0.22	85.74	205	0.418
Thyolo	962	3.74	0.31	0.00	0.22	378.86	902	0.420
Mulanje	966	6.75	0.37	0.01	0.22	535.60	914	0.586
Phalombe	746	6.07	0.49	0.01	0.43	504.59	723	0.698
Mwanza	618	4.53	0.48	0.01	0.22	397.98	589	0.676
Chikwawa	781	4.00	0.47	0.00	0.43	456.44	717	0.637
Nsanje	583	4.26	0.54	0.00	0.20	381.62	565	0.675
TOTAL	23896	11.96	...	0.00	...	15657.740	22173	0.706

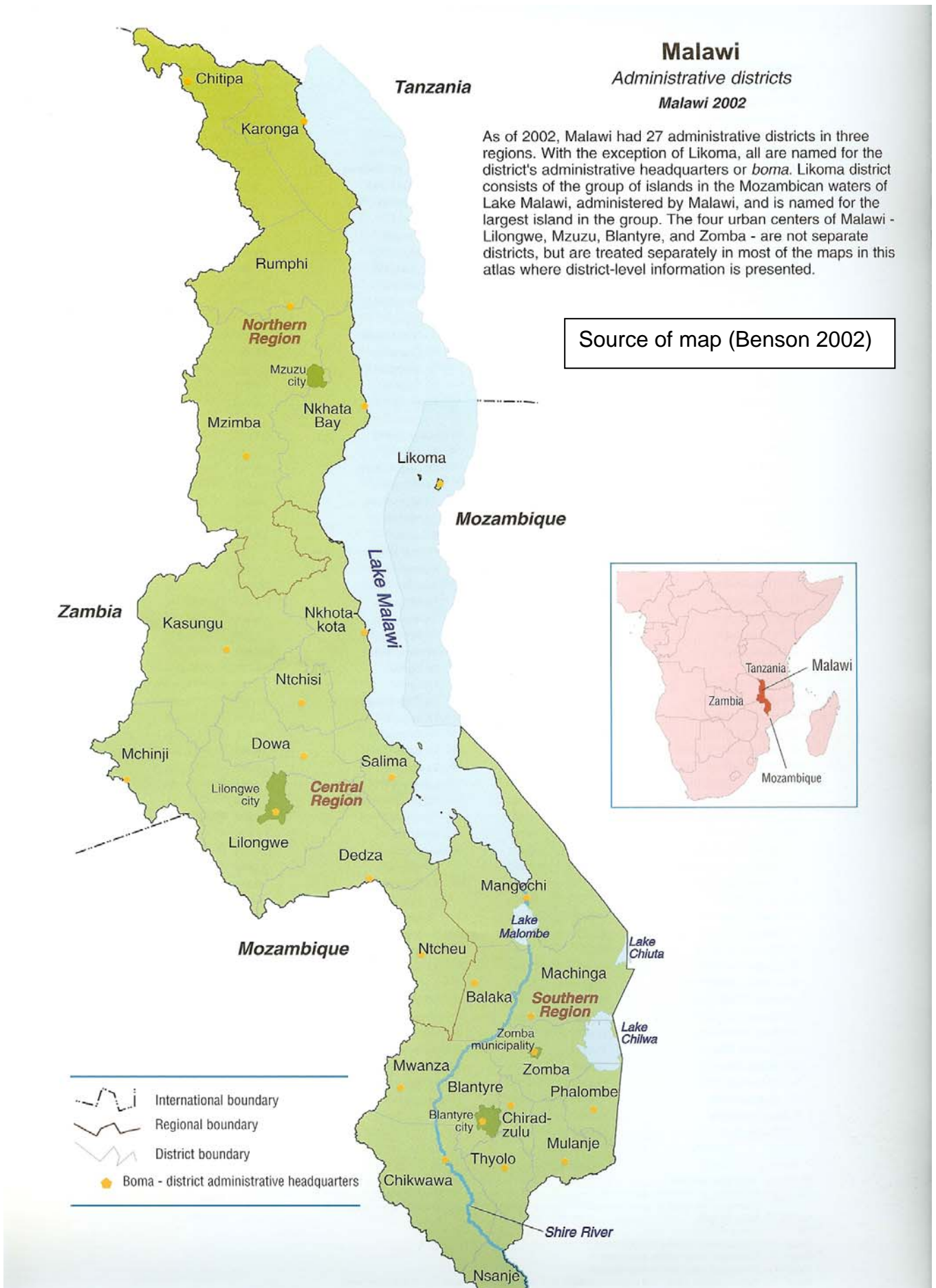
Preliminary data from NSO, NACAL 2007, National Statistical Office, Zomba

TABLE A2

Presence of unallocated lands (chilala) and estate lands within walking distance of the village

	Unallocated		Estate		Estate			
	Count of 1	Row%	Count of 2	Row%	Count of 1	Row%	Count of 2	Row%
Chitipa	121	69.9	52	30.1	26	15.0	147	85.0
Karonga	70	47.6	77	52.4	11	7.5	136	92.5
Rumphi	63	33.0	128	67.0	76	39.4	117	60.6
Nkhata Bay	76	52.8	68	47.2	56	38.4	90	61.6
Likoma	10	76.9	3	23.1			13	100.0
Mzimba	195	69.1	87	30.9	98	34.4	187	65.6
Mzuzu City	7	33.3	14	66.7	2	11.1	16	88.9
Kasungu	227	64.5	125	35.5	171	48.0	185	52.0
Ntchisi	165	68.5	76	31.5	40	16.6	201	83.4
Dowa	159	60.5	104	39.5	40	15.1	225	84.9
Nkhota kota	113	74.3	39	25.7	43	28.1	110	71.9
Salima	123	58.3	88	41.7	47	22.2	165	77.8
Dedza	69	31.9	147	68.1	24	11.1	193	88.9
Ntcheu	69	50.7	67	49.3	14	10.4	120	89.6
Lilongwe Rural	226	41.2	322	58.8	149	27.3	397	72.7
Lilongwe City	10	26.3	28	73.7	5	12.5	35	87.5
Mchinji	120	50.4	118	49.6	135	55.6	108	44.4
Balaka	52	42.6	70	57.4	17	13.8	106	86.2
Mangochi	89	56.3	69	43.7	58	37.9	95	62.1
Machinga	108	50.7	105	49.3	60	28.6	150	71.4
Zomba Rural	130	43.2	171	56.8	52	17.2	251	82.8
Zomba Municipality	2	3.4	57	96.6	3	5.0	57	95.0
Chirazulu	41	19.7	167	80.3	37	17.8	171	82.2
Blantyre Rural	46	30.1	107	69.9	14	9.1	140	90.9
Blantyre City	3	8.6	32	91.4	3	8.8	31	91.2
Thyolo	23	23.2	76	76.8	62	62.0	38	38.0
Mulanje	33	28.0	85	72.0	41	34.2	79	65.8
Phalombe	33	43.4	43	56.6	11	13.8	69	86.3
Mwanza	46	51.1	44	48.9	24	26.7	66	73.3
Chikwawa	53	46.9	60	53.1	28	25.0	84	75.0
Nsanje	70	49.0	73	51.0	2	1.5	133	98.5
Total	2552	46.7	2702	49.4	1349	24.7	3915	71.6
Missing				215				205

Preliminary data from NSO, NACAL 2007, National Statistical Office, Zomba



Population density surface from enumeration area data

Persons per square kilometer

Malawi 1998

This second map on population density uses population and area totals from the census enumeration areas, rather than the TAs and administrative wards used in the preceding maps, to create a population density surface. There are over 9,220 EAs in Malawi, of which almost 9,150 are populated. Blue shading indicates areas of high population, whereas brown and yellow shading indicates areas of low population. Naturally, urban centers and district administrative and trading centers stand out as points of population concentration, while national parks, game and forest reserves, and escarpment areas along the Rift Valley wall show low population density.

Source of map (Benson 2002)

