RANGELAND TENURE - THE DEBATE

The following are contributions by various authors to the debate concerning appropriate forms of tenure for grazing land in South Africa that is to be redistributed through the Government's land reform programme.

LAND REDISTRIBUTION AND LAND TENURE ON RANGELANDS

Michael C Lyne
Agricultural Economics, University of Natal, P/Bag X01, Scottsville 3209

Introduction

The purpose of this contribution is to briefly review the major forms of land tenure and their implications for land use efficiency and equity. This topic is particularly relevant as the country embarks on a process of land reform designed to settle legitimate claims to land and to redistribute land currently held by the State and large scale commercial farmers. Restitution of land rights will transfer some land, but there is an urgent need to accelerate visible redistribution in order to promote political stability and economic growth in the long-term. The range of policy options that can be considered for land redistribution has been narrowed by the new constitution. In the case of privately-owned farm land, redistribution is to be effected by the land market, albeit a market distorted by grants or soft loans to new entrants.

The principle of voluntary market transfers has been endorsed by organized agriculture but may have created a misconception that new entrants and successful claimants will own their farms, and that ownership will strengthen their incentive to conserve, improve and use the land productively. The reality of the situation is that both private and State-owned land will tend to transfer to groups of beneficiaries rather than to individuals because (a) the cost of sub-dividing large farms into smaller and more affordable units is very high, and (b) it is difficult to negotiate with large numbers of individual claimants or buyers.

The result will be co-ownership of land. Group ownership is certainly not a new concept in South Africa and does not necessarily imply that productive land will become unproductive. Unfortunately, experience has shown that certain types of group ownership do curb productivity to the detriment of both consumers and the intended beneficiaries of land reform. Many people consider communal land tenure to be the root cause of poor agricultural performance and the over-utilisation of grazing resources in the homelands.

Objective information about the likely effects of alternative tenure arrangements on the long-term use of agricultural land is vital as these institutional rules establish the incentive structures that shape decisions taken by investors. If incentives are weak, agriculture will stagnate no matter how skilled the emerging farmers, or how good the extension and support services provided by the State.

Land tenure institutions

Figure 1 attempts to summarise the major forms of land tenure ranging from open access to private ownership. Open access implies that rules governing individual access to land are either absent or unenforced. This condition holds even if the community using the land is well defined, and regardless of whether the land is legally owned by the group, the State or an individual. At the other extreme, private land owners can effectively exclude other people from using their land.

Between these extremes, there exists a range of common property institutions. In this case, a well defined group makes and enforces its own rules to regulate access by its members and other individuals. If the rules are highly inclusive or weakly enforced the common property institution approximates an open access arrangement. It is convenient to distinguish between two basic common property institutions:

The first relates to user groups. Here members of the group exercise their own managerial decisions within the constraints established by the group as a whole. For instance, the rules may restrict the number of cattle that each member is allowed to graze on the common, but each member controls his or her own herd. To be successful, user groups must be small otherwise the costs of negotiating and enforcing rules will exceed the benefits gained by preventing over-utilisation.

The second relates to non-user groups. Here individuals surrender some or all of their use-rights to a

management team. For instance, the members may constitute themselves as a legal entity (eg. a business trust, corporation or company) with a formal constitution defining the powers and responsibilities of hired and elected managers.

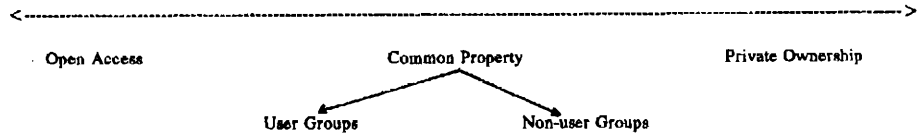

Figure 1. A continuum of land tenure institutions

Efficiency and equity implications

Efficient use of agricultural land requires:

(a) That farmers have an incentive to improve and conserve the land. This incentive is diminished if investors cannot capture all of the benefits generated by their investment.

(b) An efficient land market. If the land market is efficient land will transfer to the most effective farmers and lenders will accept land as security for loans. The market not only improves a farmer's ability to finance investments but also strengthens his or her incentive to invest as the land can be liquidated at any time.

Neither of these conditions is satisfied when access to land is open. First, the benefits of an investment made by an individual accrue to other users (free-riders) and second, the land market is constrained by high transaction costs because negotiations have to be conducted with a large number of users. These problems are only partly resolved when access to land is regulated by user groups. Following this logic, the conditions for efficiency are best satisfied when individuals or management teams (representing non-user groups) have exclusive rights to land.

It is often argued that efficiency is gained at the expense of equity. For example, if communal land is privatised, some farmers will not succeed and will have to sell out. Without land, these households are left destitute. This argument is much less convincing when applied to groups that purchase private land, and assumes that households will sell rather than lease out their land. It also ignores the welfare of consumers (who benefit when land is farmed properly) and prospective farmers (who rely on land markets to enter the industry and to 'scale the agricultural ladder').

Suggestions for future land tenure institutions

While a compelling argument can be made to partition farms bought by groups into smaller privately-owned units, it may not be feasible to fence and develop small areas of extensive grazing land. Likewise, it may not be practical to privatise communal grazing land.

In these instances, common property solutions would be preferable to open access situations. The user-group solution might be considered where small groups of farmers acquire freehold land from commercial farmers or from the State. Evidence presented by Olson (1971:54) and experience gained in New Zealand (Lyne, 1994) suggests that significant investment may be unlikely in groups comprising more than ten members. For large groups, the non-user group solution is recommended.

In New Zealand non-user groups constituted as private incorporations and business trusts promoted the productive use of Maori land without any loss in equity. An elected management team acts as trustee for members of a kinship group and is bound by a formal and transparent constitution. The constitution may forbid share trading outside of the group, and may prevent the committee from selling land. Otherwise, the committee is empowered to enter contracts. For example the trustees may hire a farm manager and labour or simply rent

the property to tenant farmers.

The profit or rental income is distributed to stakeholders, partly as cash dividends and partly in the form of services - like residential sites, housing, schools and clinics. Over time, dividends have become less important as services provide benefits that are less subtractive. Maori commentators claim that this trend has added to the popularity of the approach as it resembles the original tenure system where land rights served primarily to provide social security.

The success of these private initiatives eventually persuaded the New Zealand government to abandon its 'Development Schemes', which involved state management of land under-utilised by its Maori co-owners, and to support the voluntary transfer of decision-making power to private trustees and body corporates. Today it vigorously disseminates information about organisational structures, arranges meetings where groups draft their constitutions, brokers settlements when conflicts arise, provides managerial training, and assists with office space. In short, the State shares the transaction and administrative costs of building these new institutions.

Conclusion

When large groups apply for soft loans to purchase private land, or claim land as compensation for property that was taken from them, every consideration should be given to the nature of the group. In particular, there should be evidence of a transparent and binding constitution, and the achievements of private institutions like companies and business trusts must not be overlooked. The implication is that beneficiaries must be given objective information about institutions that work, and helped to launch the organisation that they choose. If the State does not provide this support, restitution and redistribution may well convert freehold land into an unproductive open access resource. Success could establish useful precedents for policy initiatives in the homelands.

References

Lyne MC 1994. Ownership and control of Maori land: Some lessons for South Africa. Development Southern Africa (in print).

Olson M 1971. The Logic of Collective Action. Harvard University Press.

Acknowledgement

The author gratefully acknowledges financial support from the Centre for Science Development (HSRC, South Africa). Opinions expressed in this paper are, however, his own.

oooOooo

LAND TENURE FOR SMALLHOLDER LIVESTOCK SYSTEMS

Dave R Tapson
Development Bank of South Africa, P. O. Box 1234, Halfway House 1685

Introduction

The natural resources of South Africa are such that extensive livestock production is the only option available on some 85 percent of the land. A long history of research among the developing communities suggests that the most favoured form of agriculture is based on livestock, backed up by some form of crop production, even in bio-climatic zones which would not normally be held to support crop production. This pattern has developed as a favoured production system over centuries of occupation by the African population and was in fact adopted by the early European settlers on their arrival in the country.

It is likely therefore that one of the main thrusts of the land reform programme will be some form of livestock production, backed up by more or less risky cropping activities, depending on the site conditions which would apply. It is likely that the bulk of the livestock enterprises will be small, at least initially, which means that the topo-cadastral survey and transfer cost of lots to individual farmers will be high, if not prohibitive. Further, the costs of developing the micro "ranches" would be unlikely to be recovered from cattle farming operations.

The commercial "norm" of freehold livestock farms being held by individual title does not, in these circumstances, appear to be financially efficient. An alternative approach is proposed here, involving mixed tenure tailored to each farm unit resettled, which approximates to a more robust version of the institutional arrangements which exist in the so-called commmunal areas of the country.

Principles and assumptions

The most important principle being adhered to in the development of the land reform process is that translocating individuals and communities will be responsible for the planning of the land-use and production systems to be adopted on their new land. The Land Reform Pilot programme makes provision for the funding of resource persons or institutions to enter into planning partnerships with the communities for this purpose. For the rest the process will be congruent with the principles underlying the RDP.

It is assumed that the bulk of applications will be from communities desiring to re-locate, rather than individuals, which introduces the institutional complexity underlying the purpose of this article. Individuals requiring land under the reform process present no more problems than those associated with any other individual transfer in the market.

This proposal, therefore, relates to clusters of households who desire to move and who will mostly have relatively small numbers of livestock.

Technical framework

Regardless of the various routes by which the stage may be arrived at, the land reform process will eventually involve an identified community associated with a specific parcel of land which it will take over. The land reform process requires that the community be responsible for planning the proposed land-use. This process will have to be initiated by a resource inventory to define the type and scale of farming activities available to the planners. The livestock potential will determine the number of households who can be translocated, according to a to-be-defined income standard, probably unique for each community. This livestock carrying capacity will feature as part of a contract between the state and the community, as will be described below. It will not be sub-divided into individual land-holdings but will be used as a common property by livestock owners.

Arable land will be demarcated and allocated according to a formula defined by the households in the cluster. Residential plots should be large enough for appreciable food production to be possible and should be sited on the best available arable land, including irrigated land if this available. The land surrounding the homestead is traditionally the best tended and most productive in the village for many reasons, including the fact that it is more easily protected from livestock and can be more efficiently worked than more distant land. Efficiency in the provision of services dictate that the homestead sites be assembled into villages rather than scattered over the landscape as is the preferred primordial pattern.

This arrangement implies that each household will have rights to three classes of land, with three quite different economic values to the user. It is likely, therefore, that the naturally appropriate form of tenure will vary between the three and will require differing treatment as is outlined below.

Institutional framework

The fact of the concentration of homesteads into villages for technical reasons means that the translocating clusters of households must have some clear and compatible association with each other to increase the probability of social success. This factor is likely to shape quite considerably the nature of the applications received.

Plainly, given the technical outline above, the land-tenure system governing the occupation of the land is a crucially important institution. Secure individual tenure of the high-value homestead sites and arable lots is a pre-requisite. The low-value grazing land can be held under a more flexible right of access. It is proposed therefore that the farm unit be owned by the translocating group under a form of sectional title, similar to that under which individuals own flats within a building on an urban property and have common rights and obligations on the property as whole.

Thus, the homestead and arable lots would be held in freehold by the individual, with a separate title for each lot. These titles could be traded as freely as in the traditional property market, with the exception that the community might stipulate prior approval of the purchaser. This is fairly familiar, and should present no major impediments to the reform process. In addition to the title deed land, each new settler would be entitled to an equal number of grazing rights on the commonage, the total number of which would have been determined by the land-potential assessment carried out in the planning phase. These rights would be purchased as part of the total land transfer package, in terms of the land reform programme provisions and would be freely tradable, as with the title-deed land.

A body corporate (currently recognised as a community trust) would be established to administer the rules of the association. These rules would be drawn up by the members of the body corporate with one important exception. The state has the obligation to protect the environment and the primary production base for future generations. It is common cause that as a result of past distortions in the land market, some element of subsidy will be required to give the new settlers a chance of success. In exchange for the subsidy, the state can reasonably demand a *quid pro quo* in the form of including in the rules of the association, provision for the protection of the environment, most specifically in regard to total stock numbers.

The body corporate would extract levies for its own operation and to pay the rates levied on farm properties by local government. It would also attend to issues of public goods such as bulk infrastructure and social services. It would act in regard to the rights and obligations of the total farm in every sense as the owner of that farm. It and its individual members would have access to all the services which individual owners would be entitled to in the area and would be obliged to participate in their public obligations as well.

This proposal presents a radical shift in responsibilities and benefits for the translocating settlers, compared to their experience in the traditional areas. It is of crucial importance therefore that the state recognises its institutional responsibilities and makes provision for a corps of specialist counsellors to facilitate the change process.

Conclusion

The anticipated desires of translocating settlers who do not have the resources to purchase viable units as individuals and the dictates of economic and finacial efficiency demand innovative approaches to land reform. The model presented here combines the accumulated experience of traditional communities and the familiar legal and administrative processes of the conventional property market. It provides an approach which may meet the requirements of the communities in terms of settlement patterns and land management, and those of society in terms of the preservation of the resource base. It is sufficiently different to require specialist assistance to the new farmers, for which specific provision should be made by the state. It also requires a recognition by the settlers of their obligation to society in return for the subsidy they have received.

oooOooo

LIVESTOCK PRODUCTION, RANGE MANAGEMENT AND LAND REFORM IN SOUTH AFRICA

J van Rooyen
Director, Graduate School of Agriculture & Rural Development, University of Pretoria

Introduction

South Africa's agriculture is facing the prospects of wide and far reaching agricultural adjustments and land reform. Agricultural land reform will be determined by a complex set of conditions in the agricultural sector, political considerations, social determinants, the present status of land, macro-economic considerations and the constitutional framework and provisions. The position of livestock in the household economy of rural dwellers and the intricacy of communal land tenure systems compound this complexity. It is argued that this complexity will require a multi-pronged approach to land reform. Options and strategies to implement such an approach for livestock production on rangelands is briefly discussed in this paper.

Objectives for land reform programmes in South Africa

A land reform programme in South Africa will have to accommodate the following objectives: (1) to enable access to land for all, especially those who were previously denied such opportunities; (ii) to restore land rights to those who lost such rights without fair compensation; (iii) to ensure that those who utilize the land are placed in a position to improve their quality of life and welfare position; (iv) to ensure that agriculture is restructured to optimise its contribution to economic growth, food security and sustainable rural development; and (v) to attend to the needs of those who will either be negatively affected by agriculture and land reform process or not included.

Reality tends to impose trade-offs and compromises any land reform programme. It can therefore be expected that a balance will have to be struck between efficient land use requirements, the political need to provide for the "land hungry" and to restore lost rights, and fair redistribution to structure a sustainable system of agricultural land use.

Options and models

Options to support land reform can be categorised into market assisted and administrative/state assisted categories. Land seizure could be viewed as an alternative but it is argued that market and administration assisted options could ensure an effective rate of land redistribution. Land seizures will also create a unstable rural environment and should be actively discouraged (World Bank 1993).

Within the above categories, the following options can be considered for agricultural land reform (Van Rooyen *et al.* 1993). The acquisition and utilization of land is considered in these options. The options are biased towards market assisted procedures supported by administrative measures.

(1) *Farmer settlement schemes*

Farmer settlement strategies imply (at least a degree of) transfer of rights to assets and decision making to farmers. Prospective farmers can settle by buying (or leasing) land, livestock and other farm resources.

On these schemes farmers are often supported by a co-operative type of service unit responsible for creating access and the management and delivery of support services such as input supply, credit and marketing, processing, training, extension and counselling. Regulatory and administrative arrangements are also centrally coordinated.

(2) *Farmer Services Provision Programmes (FSPP)*

A farmer support provision programme is different from a settlement programme and it is primarily directed at those already farming, i.e. small-scale, part-time, full-time, male and female in developing situations in the homelands. The programme is therefore not a land provision programme *per se* but rather a support strategy attempting to alleviate constraints under which farmers are operating. In homeland areas and especially on lands under tribal/communal tenure arrangements, farmers operate under severe constraints, ranging from a lack of appropriate infrastructure and support services to security of production rights. An FSPP approach to land reform should thus be structured as a comprehensive package of institutional arrangements aimed at creating access to farmer support services. Access to land rights will be considered as one important element

of the programme. FSPP can be specifically structured to cater for the needs of livestock farmers/holders in these areas.

(3) *Private land acquisition (PLA)*
The direct transfer of land (and other assets) through the market is a cost effective process of transfer. Direct land transfers are now possible since the scrapping of the Land Acts. It will thus be strongly recommended that opportunities be created for the settlement of farmers through a system which will promote and facilitate normal land transfers through the market to new farmers in commercial areas. Even when the state is in possession of land, transfer to individuals to farm must be viewed as a potentially useful strategy. Access to funds to buy land remains a problem. The financial dilemma which is presently manifesting in commercial agriculture, strongly accentuated by the present drought, however provides opportunities for land reform. Various approaches, whereby financial institutions such as the Land Bank, commercial banks and the state can intervene, can be argued. Equity swop arrangements have been proposed by commercial banks. The exchange of indebted land to be used for land settlement programmes through debt settlement arrangements and foreclosures provides some alternative options.

(4) *Broadening the farm asset ownership base (BAB)*
Land reform can be extended to accommodate various asset sharing and transfer opportunities to landless groups in commercial farming areas. Farm workers, for example, can be included in profit sharing arrangements, equity acquisition schemes, co-ownership of the livestock herd, etc. Such arrangements will broaden the ownership base on commercial farms and will provide for farming opportunities to farm workers while maintaining productivity. This will address a major problem experienced by farm workers, i.e. that of wealth accumulation and security.

(5) *Increase the supply of farm land through Administrative Support Measures (ASM)*
The above models argue increased access to land through market forces and "willing buyer willing seller" interactions. These models, however may not provide sufficient land for reform purpose, which may activate various politically motivated responses (compare with present Zimbabwe experience) and land invasions. One alternative strategy to increase land supply could be nationalization. This approach, however is not supported in view of alternative, less costly and disruptive methods to increase land supply. Another method is that of informal land invasion. The problem with this approach is that it will damage any trust in normal land market arrangements and create disincentives to invest in farming. Methods to entice "willing sellers" to offer their land, through market transactions, for resettlement purposes need to be developed. Guaranteed "pension schemes" and long term rental schemes, tax incentives etc. could be considered (World Bank 1993). The problem, however becomes acute when "willing buyers" are confronted by "non-willing seller" landowners. Administrative support measures such as expropriation at fair compensation may have to be considered in such circumstances to avoid invasions and political threats. The emphasis, however should still be on market based incentives and procedures to match demand and supply.

(6) *Restoration of land rights: forced removals and historical claims - "dispute lands"*
An important area of action refers to the history of forced removals in South Africa, which is inextricably linked to the way in which the agricultural sector has developed. Some 1.3 million people were dispossessed of their rights to land in the white farming areas up to 1982. The need for appropriate administration and legal processes to address such claims is of vital importance in lending credibility to any land reform programme. Apart from the specific restoration of land issues, it can be argued that a general restitution for the "victims" of apartheid should include mechanisms to gain access to land. If such a policy is adopted, market based mechanisms should be favoured. One example is the provision of start-up and matching grants, up to a certain level, to assist land purchases and access to services (World Bank 1993).

Developing a strategy: selecting particular options
A workable strategy for land reform will depend on many circumstances. Reaching "constitutional comfort" and political commitment to a policy is important for a successful strategy and programme. Present land tenure arrangements, the status of land, possible land claims and the maintenance, and improved productivity must

be viewed as important factors in deciding on a particular option. The following is proposed for livestock farming:

(1) *Communal tenure (including tribal range lands)*
Practical considerations dictate that a FSPP approach be considered as an optimal strategy on land under communal tenure arrangements, especially as no reallocation of land rights is required where many are already involved in some form of farming. Evidence from FSPP funded by the Development Bank of South Africa (DBSA) shows that the provision of the appropriate farmer support services will activate market forces to generate an economic value for land and farm assets. Such forces will encourage market related land transactions.

The co-operative utilization of rangelands, whereby sound management practices and the required services will be introduced for the productive use of grazing resources, can be considered. Clear "rules" of rangeland management must, however be adhered to in order to restrict over-utilization of communal land. Communities should be fully involved in the design of schemes and the setting of rules to ensure a "compact" of accountability and ownership.

(2) *State owned land*
Livestock farmer settlement projects and the selling of land to individuals and groups can be considered on state land. Strategies should be directed to the provision of opportunities to fully fledged commercial farmers as well as emerging farmers and to support poverty alleviation schemes. Existing "squatter" situations will require careful consideration of models that might be appropriate.

(3) *Private land*
Private land acquisition, farmer settlement and farmer support strategies can be considered on privately owned land. Where government decides to acquire private land for the purpose of land reform the principle of fair and just compensation should apply. Direct ownership of land by government should, however be avoided. Beneficiaries should rather be supported to purchase land. Arrangements to include landless farm workers through profit and equity sharing schemes, lease arrangements, out grower schemes, etc should be seriously considered in commercial farming as measures to redistribute ownership while retaining expertise and productivity (Mckenzie *et al.* 1993).

(4) *Urban and peri-urban farming*
An obvious area for providing access to land is to be found in urban and peri-urban farming, for smallholding. At present some 850 000 ha of land around towns and cities in South Africa are zoned as agricultural smallholdings (presently occupied by whites while large mine land areas are available). Some 50 percent of these are mainly for farming purposes. This type of farming has major attractions, namely the proximity of markets for flowers, vegetables and meat and dairy products. Co-operative grazing schemes could also be considered. Urban agriculture is one of the avenues through which relatively large numbers of part and full time farmers could gain access to land and farming opportunities in a relatively short period of time. Zoning to protect high potential agricultural land from urban expansion needs to be instituted.

Conclusions
A South African land reform programme will have to attend to a complex set of issues, motives and situations. A clear framework of reference, linking options to issues, will greatly assist in "unpacking" this complexity in order to design effective support systems and to ensure a politically acceptable, productive and sustainable land reform programme.

A range of options can be considered for livestock farming schemes. Communal rangelands present an opportunity through the introduction of co-operative land-use arrangements and the required support services. It will, however be important to ensure full commitment from participants in order to create ownership and compliance to the "agreed upon" rules of the scheme.

References

McKenzie CC, Van Rooyen CJ & Matsetela T 1993. Options for land reform and funding mechanisms. FSSA Journal.

Van Rooyen CJ, Vink N & Mosebjane M 1993. Agricultural change, the farm sector and the land issue in South Africa. Dev. South Africa 10(1).

World Bank 1993. Options for land reform and rural restructuring in South Africa. LAPC conference on "Land Redistributions Options".

oooOooo

OPTIONS FOR SUSTAINABLE ANIMAL HUSBANDRY SYSTEMS IN SOUTH AFRICA'S LESS DEVELOPED RURAL AREAS

John M Erskine

Institute of Natural Resources, University of Natal, P/Bag X01, Scottsville 3209

Any attempt to reconcile a healthy environment (achieved and maintained through the sustainable utilisation of land and other natural resources) with human economic development in South Africa's less developed rural areas is beset with difficulties. Foremost amongst these is the problem of satisfying biophysical criteria for sustainability at the same time that (a) chronic social and (b) land tenure problems are substantively addressed. The land tenure question, which revolves around the relative merits and local acceptance of private ownership, land rental or communal use (open access or community managed) of land, is particularly important in respect of the management of rangelands and grazing animals.

When dealing with land use systems in South Africa's less developed rural areas we need to take account of (a) the complexity of household economics, (b) community development imperatives, and (c) the problem of really knowing when the sustainability state is under threat. It will be immediately apparent that there is no simple answer, no one land tenure prescription, and no universal panacea for productive and profitable animal husbandry in these areas.

It is pertinent to suggest that sustainability might be approached in a pragmatic way, through unsustainabilty or non-sustainability. This implies identification and analysis of indicators of unsustainability, their underlying processes, and the focused efforts required to reverse the same to restore sustainability to a system. Sustainability is a dynamic (not static) phenomenon compatible with development; it focuses on the primacy of the natural resource base (a key integrative element of a productive system) which cannot be stretched indefinitely without degrading it; it recognises the need for a system or system boundary, in the context of which the phenomenon becomes operative; and it focuses on the crucial importance of intersytemic linkages (a product of prevailing socio-economic arrangements) that help in enhancing the system's performance. The loss of the above-mentioned ability of a system would mean the emergence of unsustainability which, in turn, implies the loss of prospects of inter-generational equity (due to the system's inability to maintain/enhance performance), or the reduced range and quality (production/welfare) of current options for the present generation compared to preceding ones.

There is considerable uncertainty in South Africa at the present time about what to do about land. Should the traditional system (state ownership, with allocation powers in the hands of traditional leaders) be maintained or should there be privatisation of land holdings? There can be little doubt that, in the not-too-distant future, privatisation is inevitable and entirely desirable. However, one of the central tragedies in the history of southern African land and natural resources management to date is that the debate on tenure has largely been restricted to a discussion of the relative merits of state or private property regimes. Policy has assumed two options, privatise or nationalise, ignoring the further option of a communal property regime (<u>not</u> an open access system), even if only as an interim measure on the way to freehold land tenure.

In Zimbabwe's 'communal' lands (37% of the country) where 60% of the population live, a system of 'indirect rule' was in place prior to independence and traditional leadership structures were supposed to play a role in land and resource management. But the ability of these traditional structures had been seriously eroded

by their tenure status. They and the constituencies were on state land with usufructural rights only; they had no powers of exclusion and access to certain natural resources (for example, wildlife) were denied to them. Thus the conditions for a genuine communal property rights regime were removed. Under these conditions, and with the state effectively unable to manage the resources, the use of resources tended to acquire the characteristics of an 'open access' system. It is not surprising, therefore, that the communal lands have been the scene of some of the greatest environmental degradation in the country. Exactly the same conditions can be found at the present time in South Africa. We have a situation right now whereby, on the one hand, some African leaders want to retain the traditional land control system because therein lies the power base of the traditional chiefs; on the other hand, the ANC-led Government is keen to introduce democratic local government and explore various land reform possibilities.

It is worth noting that the policy myopia in Zimbabwe referred to above, which envisaged only privatisation or nationalisation tenure options, has continued in the post-1980 independence era. Land reform programmes have taken a further 8% of total land surface out of private hands for the resettlement of communal land inhabitants, but these resettlement lands are state lands, and are occupied under tenure conditions which if anything are more restrictive to a genuine communal rights regime than in communal lands.

Reference has already been made to the distinction to be made between open access and common property resources. In those circumstances wherein a community does not have control over a state owned resource, the members of that community will inevitably compete for use of that resource and over-utilise it. In South Africa's less developed rural areas, forest areas, water resources and grazing lands often fall into the category of open access resources, with resultant over-use. It is interesting to note that in Nepal, communities that have been given control of previously owned state land and forest areas have introduced management systems that have had a remarkable impact in slowing down and, indeed, in many cases, halting the process of environmental degradation.

Traditional local community management structures are often an appropriate starting point for raising environmental issues, but alone may not be the most effective instrument for coping with the complex present day problems created by competition for space and overexploitation. Conflicts of interest within an increasingly heterogeneous rural community, as well as between communities and 'outsiders'; complex management issues; and effective decision making and control procedures all need to be dealt with. These complex issues may be beyond the capacity and the mandate of the traditional local community organisation. Hence, there may be a need for new organisations to be established, or the traditional local community authority may need to be upgraded so that it can effectively implement environmental management programmes.

Providing that locally acceptable property rights regimes (private and communal) and community management structures are in force, it is evident that sustained development of animal husbandry through appropriate management of feeding systems for what are normally considered to be extensive grazers (cattle, goats and sheep) can bring about economic betterment of the inhabitants of the less developed rural areas in South Africa. However, small-scale farmers need help if they are going to profit from livestock farming. Until relatively recent times, indigenous rangeland management practices withstood the test of time and were sustainable. But now, with increasing human population pressure on available natural resources and the breakdown of social controls and sanctions, these practices are no longer sustainable no matter what land tenure system obtains. People with grazing livestock require fodder resources; it has always been assumed that this requirement will be met by placing the animals on rangelands, that is, on extensive grazing areas. Governments, agricultural development agencies and farmers in a number of developing countries, particularly in South East Asia, recognised long ago that there is only one way to maintain a sustainable animal husbandry sector in respect of grazing animals in conditions wherein there is (a) high and increasing human population pressure on the land, and (b) a rapid and very desirable transformation of the land tenure situation towards private ownership, and that is to change from extensive to zero grazing (stall feeding) systems. Is it not time for researchers and extensionists, working closely with smallholder farmers, to give urgent attention to the transformation of pastoral systems in the less developed areas of this country?

oooOooo

STOCK IMPROVEMENT AS A MEANS OF OPTIMIZING COMMUNAL OWNED LAND

Hennie A du Preez
Department of Agriculture, Northern Transvaal Province, P/Bag X9319, Pietersburg 0700

Over utilisation and mismanagement of communally owned land is a common phenomenon in the former "homelands" of the R.S.A. This over exploitation of the natural resources can mainly be ascribed to a lack of individual land ownership or a legal responsible body.

On a farm or ward of approximately 1500 to 2000 hectare there might be 120 or more family's with land rights, that is people with direct access to arable land and/or grazing rights for livestock. The average number of livestock per family in Lebowa is 4.55 LSU. This figure exclude goats and draft animals like donkeys. On average the whole of Lebowa is overstocked by 282 percent calculated on the 92/93 livestock census.

To analyze the origin of the problem the reasons why so many people want to keep stock must be determined. Livestock usage can be divided into three major categories.

(1) *Private slaughtering's.* The highest percentage of herd reduction is due to private slaughtering's. The overriding coarse is for ceremonial and mainly funeral and other death related purposes. It has been observed that each family keep at least one or two animals in readiness for this purpose. The animals that is slaughtered for this purpose were mainly old cows and oxen (Ramaboa 1993).

(2) *Selling for profit.* According to the statistics, stock sales come second to home slaughtering's. Most cattle were old unproductive animals and oxen. In times of real need a farmer would rather buy stock for slaughtering rather than slaughter his breeding cows, even in times of severe drought, breeding stock will rather die than be sold.

(3) *Other usage* includes milking and animal draught power and to a very lower extend, the repayment of debt.

With this in mind, communal land tenure can be divided into two separate categories; Stock farmers - those people that are farming for commercial purposes and with its sole income from farming. Stock owners - people that keep stock for traditional or ceremonial reasons, most of these people earn their living away from the farm.

To overcome the problem of over utilization a program of intensive extension was launched early 1983 to convince all communities to practice stock improvement. This has been an extension campaign whereby the benefits and advantages of better pasture and stock management, as well as the responsibility of ownership of the existing infrastructure on a farm, were promoted amongst all members of the community.

When the project was initiated most communities were unorganised and livestock tended to roam all over the farm wherever they wanted to go and or where there was available drinking water. Stock owners in a community had different stock numbers that varied from one to a few goats up to a hundred or more LSU. Rotational grazing and stock management practices, except for dipping were absent.

By organizing the community as a whole and let them form a committee of livestock farmers responsible for all the livestock in the ward. The purpose of such a committee are to perform a management task. Rules of conduct for the committee were made by the community and a constitution drawn up as a guide to the committee and the community to be used as a management guideline for the livestock in the ward.

The first major benefit was that the livestock farmers were separated from the stock owners. Decisions that ought to be made in concern with the natural resources and infrastructure were much easier. Stock farmers could be properly trained in farming and management skills. Rotational grazing could be practised with the co-operation of the community as a whole.

When such a project was started there were a great difference in stock numbers between the farmers in a ward. Due to a lack in the recovering of the grazing fees and the very low fees charged there was no control over the number of livestock a individual farmer could keep. This system leads to unfair utilization of the natural resources between stock owners. The fact that there were no limits enforced on the number of LSU per individual or even the number of families without agricultural rights, that also keep livestock, the natural resources were totally over utilised and exploited. There was no practical way to decrease the stock numbers

without a disadvantage to one or more farmers. After a few years of extension and training of the stock farmers in improved farming principles and leading them towards commercial and more productive farming techniques, they as a community started to decrease their stock numbers and kept only the more productive stock. Some unproductive animals were kept to be sold for ceremonial slaughter purposes.
During this stage the community moved towards the second phase where they decided to decrease there stock numbers to adapt to the carrying capacity. They also decided that every farmer will still have his own cattle but equal numbers. This is a better method of utilization of the communally owned natural resources without advantage to one or more farmers. The community also started to farm as a unit where maintenance costs and management responsibility's were shared.

Some of the community's decided that they will farm on a co-operative system where all the animals belonged to all the participating farmers. Cost, management, maintenance and profits were shared equally. Selection and selling of livestock increased while the stocking rate of the farm stayed within the natural limits.

Since 1983, sixty four different schemes were started, twenty three of these were fully functional and run by the community itself. Due to the political turmoil and severe drought of the past few years only twelve of these schemes survived without extension, even though there was no further development on some of the schemes neither were there any decrease in their functionality.

The biggest threat towards all of these schemes was trespassing of stock from the adjacent farms into the camps that were rested with good grazing. The secret of the successes of these schemes was that in every case the community as a whole were involved right from the start. All decisions taken were made with the concern and blessing of the community. The governments only role was that of extension, training and financial support to material in erecting the infrastructure where necessary.

Reference

Ramaboa 1993. People Involvement in Animal Agriculture in Lebowa. Procedings of the annual SASAS National states branch. Aventura Eiland, October 1993.

oooOooo

POPULATION GROWTH, SCARCE LAND RESOURCES AND LAND REFORM IN A DEMOCRATIC SOUTH AFRICA: ARE THEY COMPATIBLE?

Grant P Hatch
Grassland Science, University of Natal, P/Bag X01, Scottsville, Pietermaritzburg 3209

Political change and proposed land reform in South Africa has focused attention on land ownership and current systems of land tenure. This has led to increased demands for access to land and an equitable land distribution. The government is faced with the challenge of aligning political expectations for land reform with food production considerations. Current debate on the land issue has centred on the rights of individuals or groups of individuals to land, and the restitution of land rights to previously disposed communities. This gives rise to inflated expectations and heightened demands for land. Interestingly, little consideration is given to the relationship between environmental suitability i.e. production potential, population pressure, and land ownership and possible redistribution.

South Africa, with some perhaps noticeable exceptions, is an arid country. Range dynamics are strongly influenced by seasonal rainfall patterns although management actions (e.g. stocking rate) also play a major role in influencing system dynamics and determining production potential. This is clearly reflected by the influence of rainfall patterns on agriculture and the broader economy. Superimposed on environmental variability is the spectre of population growth and increased pressure on diminishing resources. While land reform initiatives may consider population limitations, environmental suitability is often overlooked. Importantly, land reform options are strongly tied to both environmental and population factors. This paper outlines the relationship between environment, population and options for land reform (Table 1).

Table 1 **The conceptual relationship between rainfall, population pressure and land reform options in South Africa**

High rainfall/low population pressure * rainfall and productivity consistent * agricultural potential high * land privatisation/communal range-use * development of commercial systems	**High rainfall/high population pressure** * rainfall and productivity consistent * agricultural potential high * form of land privatisation * development of semi-commercial systems
Low rainfall/low population pressure * rainfall and productivity variable * agricultural potential low * communal tenure and nomadic pastoralism * multi-species systems	**Low rainfall/high population** * rainfall and productivity variable * agricultural potential low * extreme pressure on resources * agricultural options limited * need for integration with urban strategy

The suitability and economic efficiency of formal management systems in arid environments, even for commercial production, is questionable where stochastic rainfall events influence spacial and temporal patterns in productivity. Attempts to redistribute land on the basis of permanent tenure may perpetuate past failings and commit the state to an extension of a 'drought' subsidy system. Under low population pressure in areas, such as the Northern Cape, conditions may favour a form of communal land tenure where a high degree of mobility would reduce the risk of forage deficits. Here an incorporation of multi-species systems into existing livestock systems may further reduce risk. At the other extreme, such as the valley systems of KwaZulu-Natal, high population densities coupled with low and erratic rainfall leads to extreme pressure on resources and environmental degradation, both of which perpetuate subsistence conditions. Open-access conditions prevail with livestock stocked at ecological carrying capacity and productivity is directly related to rainfall. Ecological and social constraints provide a major challenge, severely limiting agricultural production potential, and options for land reform may be extremely limited. Land reform aimed at encouraging agricultural production is likely

to fail. Realistic expectations would be for small-scale settlement leading to urban development around major centres.

In contrast, in humid environments, rainfall and hence productivity is seasonally reliable and system dynamics are driven primarily by management. A highly productive system, coupled with low population pressure, provides a number of land reform options. Capital-intensive development and private land ownership, which would lead to investment in land improvement, or conversely communal tenure with strong community control of access to resources through grazing management associations, may be viable options. Similar environmental conditions, but with high population densities, does allow some options for land reform. Although the pressure on range resources is likely to be severe and open-access conditions may prevail, highly productive soils make such regions suitable for some form of land privatisation of communal grazing lands and the development of small-scale, semi-commercial systems.

The present government is faced with a unique opportunity to reverse the effects of 40 years of social engineering and bring about an equitable land distribution. The challenge, however, is to achieve this without disrupting agricultural production. Claims that one third of all commercial farmland should be redistributed within five years are politically expedient but are unlikely to be achieved, and the land aspirations of many South Africans may be frustrated, if land reform initiatives are not aligned with environmental and population constraints. Success will see the emergence of black commercial producers and enhanced agricultural production as a catalyst to economic development, failure will see a repeat of past mistakes where people were settled in large numbers on marginal land at enormous social cost.

oooOooo

SUMMARY

Craig D Morris (Co-editor)

The following are the main points of summary:

1. Redistribution of land will most likely be effected through the transfer of both private and State-owned land to groups of beneficiaries rather than to individuals. Extensive subdivision will be costly and often impracticable.

2. Where land is to be transferred to individuals, normal market forces and administrative procedures can be employed, with some form of financial assistance provided where necessary.

3. Transfer of land to groups creates unique problems and opportunities.

4. The complexity of the rural household economy and traditional ownership pattern dictates that a single model will not be applicable to all situations. Therefore, a multi-pronged approach to land tenure will be needed, with options tailored to each situation.

5. Land reform initiatives should be aligned with environmental and population constraints. Certain forms of tenure may be applicable only to certain environments.

5. Historically, usually only the options of privatisation and nationalisation of land have been considered. Common-property (group ownership) options have received little attention.

6. Certain forms of co-ownership (i.e. "communal grazing"), where access is open or rules of access are not enforced, have been blamed for environmental degradation. However, co-ownership of resources need not lead to impaired productivity and overuse.

7. A range of co-ownership options are available for management of common property rangeland, including options where the owners are directly involved in the management of the resources or where management is left in the hands of a selected group.

8. A mix of tenure forms may be required, e.g. private (freehold) tenure of residential, garden and arable land and co-ownership of grazing land (with co-operative management).

9. Existing traditional institutions may have to be upgraded, or new institutions created, for effective management of common property rangelands.

10. Individuals should be allowed to participate fully in decisions regarding the form of co-ownership, as well as in the planning and implementation of grazing and livestock management schemes. Clear rules for common-property management need to be defined and enforced by the group.

11. The State should not own grazing land but should rather facilitate co-ownership institutions and assist with the provision of infrastructure, support services and finance.

oooOooo

PROBLEM PLANTS OF SOUTH AFRICA

by Clive Bromilow

SPECIAL OFFER TO GSSA MEMBERS

ABOUT THE BOOK

This excellent book is the first and only comprehensive photographically illustrated guide to problem plans in S.A. It covers all of the most common weeds, invaders and other troublesome plans and is illustrated by more than 450 outstanding photographs.

The accompanying text contains information such as:

* Species names, family names, Afrikaans and English common names
* Origin and other items of interest
* Hints on control
* Weedy characteristics
* Economic importance
* Distribution

There is also a chapter on the control of weeds, a list of plant family common names, a comprehensive glossary and complete indexes.

PRICE

PROBLEM PLANTS OF SOUTH AFRICA	**R80.00**

Also available:

GUIDE TO GRASSES OF SOUTH AFRICA	**R80.00**
GIDS TOT GRASSE VAN SUID-AFRIKA	**R80.00**

Normal price per book - R89.50

HOW TO ORDER

Please send the following to us:
A photocopy of this advert/special offer;
Your name, telephone number and postal address;
The quantity and kind of book/s you would like to order;
The amount in Rand per cheque or postal order
or
Your credit card number, whether Visa or Mastercard, and expiry date.

Send to : Briza publications
P.O. Box 56569
Arcadia
0007
Tel/Fax (012) 329-3896

****