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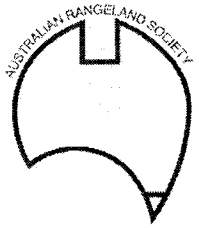

The Australian Rangeland Society

NON-PASTORAL USES OF AUSTRALIA'S RANGELANDS

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As recently as 1970, land use options for Australia's rangelands were simple, limited and founded upon self-evident truths. Pastoralism was the pre-eminent use, given absolute priority to occupy all suitable lands, and capable of being displaced only by a few "higher" (i.e. yielding higher returns) forms of land use, notably agriculture, either irrigated or dryland, and mining. The modest localised land demands of these two alternative uses posed little challenge to pastoralism's way over Australia's arid and semi-arid rangelands. Land legislation was framed to accommodate and encourage these perceived land use options, with covenants on minimum stocking rates and required capital improvements and with provisions for tenure conversion towards "higher" forces of land use. Only one other resource use was covered in the legislation, namely the reservation of timber (for commercial purposes only) by the state.

Any other prospective uses, such as reserves for aboriginal peoples, need not be in competition with pastoralism, as they could conveniently be relegated to areas unsuited to commercial livestock raising, such as Arnhem Land, the northern Kimberleys and the more remote desert regions. The earliest National Parks and nature reserves were also on land of little pastoral value.

A modicum of land uses complementary to, or supportive of pastoralism could be encouraged, the most important being hunting or trapping of "vermin", whether native macropods, dingoes or introduced species. A similar role was granted to scattered, minor activities such as sandalwood cutting or bee-keeping. Regarded as ancillary to pastoralism, these scarcely merited official recognition as a form of land use, and could conveniently be ignored in land legislation. Traditional aboriginal rights of movement and resource use received formal or informal recognition, provided they were not a "nuisance".

Land legislation and administration conformed to these simple precepts, having evolved by trail-and-error from the experience of over a century of pastoral occupancy, within which the twin goals of resource development and closer settlement had been pursued with vigour, if only with mixed success.

THE CHANGING CONTEXT OF LAND USE AND LAND MANAGEMENT

Only over the last two decades has this simple model of pastoral land use and land management been subject to questioning, but the questions have rapidly proliferated. So also have the alternative land use options, obviously challenging the pastoralists' domain, particularly on marginal lands where pastoralism's hold is tenuous. Significant new forms of alternative land use include restoration of: aboriginal land rights, whether including pastoralism or not; nature preservation; wide-ranging recreation and mineral exploration; water catchments; defence and quarantine; locally focussed but widely scattered intensification of land use, for tourism, mining, agriculture, urban, defence, spaceport and other activities; and a growing incidence of land held for speculative purposes.

Pastoralism's case as the "highest" form of land use has not been helped by growing public concern about such outcomes as: land degradation; loss of habitat and of native species; over-subdivision into non-viable holdings, with consequent low incomes and increased demands for public assistance; and

the mounting cross-subsidies needed to support enhanced services such as D.R.C.S. telephones, S.W.E.R. electrification and improved roads.

While pastoralism continues to be seen as an appropriate use of Australia's rangelands, there is a growing public recognition that its tenure should not continue unquestioned. Two traditional related assumptions are under close scrutiny. These are:

1. The paramountcy of pastoral production goals on lands under pastoral occupance.

2. The priority of pastoralism to occupance of any tract of rangeland with grazing potential.

Public opinion has markedly shifted in relation to these two questions. I suggest that, two decades ago, the general response would have been strongly supportive of the paramountcy of pastoral production and of its priority in pastoral occupance. To-day, I suspect that there would be equally strong negative responses or qualifications to these two assumptions. These changing perceptions relate to a growing recognition of the alternative goals (or uses) for pastoral lands, mentioned above. Their implications are clearly recognisable.

The assumption of paramountcy of pastoral production

The developmental, output-maximising goal of pastoral production is increasingly questioned, with growing recognition of the high sensitivity and low resilience of most of our rangelands and of our limited capacity to take remedial or restorative action. The public perception is that, not only should pastoral practices ensure long-term sustainability, but, further, that these practices should be compatible with preservationist goals, involving protection of natural ecosystems and native species, where appropriate. This applies not only to kangaroos and other macropods, but also to a widening array of plant and animal species, considered under threat either nationally or regionally. The acceptance of these goals thereby imposes an additional non-pastoral use on these rangelands, namely the preservation of native species and habitats. This use clearly infringes upon pastoral management practices, which may be (and often are) voluntarily adopted by the landholder, but are increasingly likely to be imposed by lease covenants or other forms of regulation or prohibition.

Recreation is another use which increasingly infringes on pastoral management, particularly in areas of high recreation intensity: attractive waterholes and wetlands; major estuaries and shorelines; spectacular landscapes; challenging 4WD routes; or lands in close proximity to population centres. Landholders, willingly or otherwise, are forced to adapt their management in areas of high usage. Attempts to reassert the paramountcy of pastoralism by prohibiting access will only lead to a strong outcry from these directly affected, supported by a wider public, concerned to maintain the principle of open access on well-used routes. These issues, not previously requiring the attention of land administrators, have recently been addressed in the various state enquiries into pastoral land administration, with the most comprehensive appraisals and policy recommendations being those contained in the South Australian (1981) and New South Wales (1983) enquires.

The assumption of priority on land occupancy:

The traditional view has been to allow, indeed encourage pastoral occupancy of all land which might yield some return, however meagre, to pastoralism. The momentum of pastoral occupancy ensured its entrenchment over all available land, being displaced only by "higher" forms of land use. Just as nature abhors a vacuum, so also have Australian land administrators. In Queensland, for example, where vacant crown land embraces less than one percent of the state's area, the declared policy has been to offer leases and

licences generously over all available land, ostensibly for pastoral use, to ensure that in all cases some person has a responsibility to "look after the land". On the most marginal lands pastoralism may well have been only a token activity, with the land being held as a very low-cost , speculative "investment". Nevertheless, the occupancy could only be legally justified in relation to its actual or potential pastoral use, as indicated in the covenants attached to leases and occupation licenses.

Pastoralism's claim to priority in land allocation has been dramatically undermined in the last two decades, with two major, distinct, powerful political and social impulses emerging to challenge for control over major tracts of Australia's rangelands.

The first of these impulses, with very strong national and international foundations, is the growing public acceptance of the need to achieve at least partial restoration of traditional aboriginal land rights. This has become an issue of paramount public concern, entailing the creation of a series of single-purpose major public enquiries, by-passing established administrative practices in land allocation within the rangelands and leading to a remarkably rapid transformation of systems of land tenure and land ownership over major tracts of the Australian rangelands.

The second of these impulses is the much more diffuse, but very persistent growth of a diversity of public interests relating to access, use and management of Australia's pastoral lands. A multiplicity of public and private interests, sometimes complementary to, but often in competition or conflict with each other (and with pastoralism) have been rapidly emerging. These interests are being met in part by the withdrawal of land from pastoralism and its reallocation to National Parks, nature reserves, recreation reserves and various other uses, and in part by a redefinition of the rights and obligations of pastoral leaseholders *vis-a-vis* other interested parties. Compared with aboriginal land rights, the policy response to this second impulse has been gradualist, piecemeal and incomplete with the policy shift largely occurring as a succession of *ad hoc* decisions in response to specific issues. The main vehicle for overall policy review has been the pastoral tenure enquiries undertaken or currently in progress in all Australian jurisdictions with extensive rangelands. See: Western Australia, Minister for Lands, 1979; Northern Territory, Minister for Lands and Housing, 1980; New South Wales Parliament, Joint Select Committee to Enquire into the Western Division, Second Report, 1983; South Australia, Minister for Lands, 1981; Western Australia, Department of Premier and Cabinet, 1986. Further impact into policy review has come from recent reports into two marginal regions, namely the Kimberley District (Western Australia, Minister for Regional Development and the North-West, 1984) and the Northern Territory Gulf District (Northern Territory, Department of Lands, 1986; Department of Lands and Housing, 1990; also see: Holmes, 1990. Currently a pastoral tenure review is being undertaken in Queensland, the only jurisdiction in which no public review had been undertaken in the previous decade.

LAND TENURE AND LAND USE DIMENSIONS IN THE PASTORAL/NON-PASTORAL CONTINUUM: A CONCEPTUAL FRAMEWORK

Given the current very complex, rapidly-changing context with a diversity of land tenures, land uses and jurisdictions, it is important to construct a logical, consistent conceptual framework within which various combinations of land tenure and use can be placed. I am indebted to Michael Young for providing the first step in the conceptualisation, given below, by making a distinction between multiple and joint use. According to Young (personal communication) the term *multiple use* entails two or more uses where one decision-maker has control over the type, intensity and combination of land uses, whereas the term *joint use* is appropriate where no single decision-maker has total control. As examples of multiple use, Young instances pastoral and resort activities under one owner, or forestry and conservation

under a single department. Examples of joint use include: pastoralism and mineral exploration; pastoralism and open access; or pastoralism and traditional aboriginal activities. The concept of joint use can be clearly differentiated into contexts where two or more identifiable decision-makers are involved, as with pastoralism and mineral exploration, compared with contexts where one (or more) of the parties either is a surrogate user, as with a trustee involved with public recreation access, or is not formally identifiable, as with traditional aboriginal use or informal recreational activities.

Table 1. Land tenure and land use dimensions to the pastoral/non-pastoral continuum.

Land tenure/ land use	Pastoral use only	Multiple use: pastoralism dominant	Multiple use: pastoralism subordinate	Non-pastoral use (single or Multiple)
Pastoral tenure only	1. Unfettered monofunctional pastoralism	2. Pastoralism with one or more of: recreation; presentation; speculation; commercial hunting; etc....all at discretion of pastoralist.	3. Pastoralism subordinate to one or more of activities listed in 2 and also to residential use... at discretion of land holder. Lease held by mining company.	4. Lease either destocked or with unmanaged unharvested livestock, with one or more of activities listed in 3 and also unused ...at discretion of landholder.
Joint tenure: pastoralist dominant	5. Monofunctional pastoralism with production-related lease covenants	6. Pastoralism with one or more of: aboriginal use mining or mining exploration; public access; covenants or conservation or preservation; or other designated non-pastoral uses.	7. As in 6 but with pastoralism a subordinate use by decision of landholder	8. As in 6 but with lease either destocked or with unmanaged, unharvested livestock.
Joint tenure: pastoralist subordinate	9. Grazing right or occupation licence on Crown land, which is not used for any other purpose	10. As in 9. but with a lower level of non-pastoral than pastoral uses: recreation; camping; water; forestry or other reserve.	11. As in 10 but with a higher level of non-pastoral uses, also possibly including preservation.	12. As in 11 but with inactivity by holder of grazing right or occupation licence.
Non-pastoral tenure	13. Monofunctional pastoralism on land held under other tenure (very rare).	14. Pastoralism with traditional activities on aboriginal land.	15. Pastoralism subordinate to traditional activities on aboriginal land.	16. Aboriginal non-pastoral lands; National Parks; nature reserve; recreation reserves; vacant Crown land; etc.

This distinction between multiple and joint use can be used as a starting point for a more comprehensive conceptualisation, in which two separate but related attributes are linked, namely the ownership/control/ access/resource rights attached to the land, here simply described as *tenure*, on the one hand and the *use* of the land on the other. It is then possible to provide a cross-analysis of a spectrum of land tenures (single or joint) with a comparable system of land uses (single or multiple.)

This cross analysis is undertaken in Table 1. This is a special-purpose table, structured around the partitioning between pastoral/non-pastoral tenures and uses. It is thus a special case from a generic cross-analysis partitioning all possible combinations of tenures and uses.

It is suggested here that the nomenclature proposed by Young provides a very useful first approximation to describe two sharply differentiated contexts, but that it fails to provide a basis for encompassing the range of combinations which currently exist.

It is further suggested that comprehensive reviews of land tenure policies and land use strategies within Australia's rangelands cannot be effectively undertaken as two separate exercises, but that they should proceed in a co-ordinated way, recognising the close functional ties between tenure systems and the preferred land uses, as indicated in the cross-analysis shown in Table 1. This will involve a more systematic, rational, up-dated approach to land tenure than currently exists in most states.

These issues will be touched upon in the summary reviews of aboriginal and non-aboriginal tenures and uses, in the remainder of this paper.

ABORIGINAL LAND RIGHTS

The rapid public recognition of aboriginal land rights, together with the formulation and implementation of public policies, largely through the medium of high-level independent public enquiries, has created the most radical shift in Australian land legislation since the New South Wales Robertson Land Acts of 1861. Already there have been far-reaching consequences, most strikingly in the transfer of land to aboriginal ownership, and, to a lesser extent, in the clearer recognition of traditional aboriginal rights on lands not under aboriginal title.

Aboriginal land title

There has been a speedy transfer of substantial land tracts to aboriginal ownership, most notably in the Northern Territory and South Australia. Equally significant has been the creation of entirely new forms of land tenure which differ radically from the transferable proprietary titles which were previously considered the only appropriate form of non-public land ownership. The communally-owned, non-transferable freehold land title granted in the Northern Territory by the federal government and also in South Australia by the state government is a markedly different land title concept, yet to be fully tested and with the long-term implications yet to be determined. A wide array of issues has emerged, concerning land use and access by both aboriginals and non-aboriginals.

Aboriginal use and access

There are many questions, not yet fully resolved, about the land rights of individuals and groups, particularly with conflicts over traditional ownership versus residency criteria; over the restoration of traditional resource use through hunting and collecting versus pastoralism; over long-term goals of cultural survival versus economic viability; over land management and the threat of over-use with aureoles of land degradation near settlements and in well-frequented areas; and over decision-making procedures.

A very high proportion of aboriginal freehold land is former vacant crown land of such low resource potential that it is largely insulated against misuse. Most of this land will remain "unused". However, the progressive transfer of pastoral leases with significant resource potential to aboriginal ownership will accentuate issues of land title and use mentioned above. One further problem arises from the misplaced assumption that these pastoral holdings hold out the prospect of commercial viability, sufficient to support

the resident population. There are two basic problems: firstly the intensity of pastoral use and the level of income generated is likely to be lower than formerly, particularly if pastoralism is treated as a subsistence supplement; and secondly, the resident population is generally too numerous to be effectively supported from the limited resource base.

There is a growing body of research into the economic and social structure of remote aboriginal communities, but only limited attention has been given to land uses which are culturally, economically and environmental sustainable. To this writer's knowledge, the most comprehensive appraisals of land use and resources on aboriginal rangelands is that undertaken by Cane and Stanley (1985) and in the East Kimberley Project (see the various project reports and also Coombs, McCann, Ross and Williams, 1989). At the behest of Coombs, the Centre of resource and Environmental Studies at A.N.U. is initiating a major project on sustainable use of aboriginal lands.

Many of these issues are inextricably linked to the nature of the land title. Given the multiplicity of federal, state and territorial jurisdictions existing in Australia, and the divergent attitudes to aboriginal land rights, it is hardly surprising that there have been widely differing approaches to the grant of aboriginal title and to the rights awarded to aboriginals under various titles. In the Northern Territory the matter is further complicated by the decision of the federal government, in 1976, to reserve to itself powers relating to the granting of lands to aboriginals at the time of territorial self-government. These powers were incorporated in the aboriginal land rights (Northern Territory) Act 1976, which continues to have a decisive role in land allocation and land use in the territory, much to the annoyance of the territory government, which has pursued an independent policy on aboriginal land rights, partly in conflict with, and partly complementary to, federal land rights programmers. Conflicts embrace a wide array of issues, but are mainly directed to the areal extent of freehold land grants, the rights attached to freehold land (particularly restrictions on access and negotiations over royalties,) the programme of excisions from pastoral leases for aboriginal community living areas and the aboriginal claim to stock routes and stock reserves.

The most radical land tenure changes have been implemented by the federal and South Australian governments, with communal, non-transferable freehold title, awarding rights according to traditional aboriginal law. At the other extreme are the limited land rights, hastily awarded by the Queensland government under the impending threat of federal intervention, using an existing land tenure titled Deed of Grant in Trust to award trustee rights over existing aboriginal reserves to the resident aboriginal communities. This title gives scant recognition to traditional rights. Indeed, under the previous National Party government, there was a persistent, though relatively unsuccessful, move to "privatise" much of this land by award of rights similar to pastoral leasehold to individual aboriginals who could supposedly demonstrate a capability and establish a commercial pastoral enterprise. This limited-term individual title was also made available for other purposes. It remains to be seen what course of action the new Labour government will pursue in relation to aboriginal lands in that state.

Non-aboriginal use and access

Equally problematic are questions relating to access and use by non-owners, both aboriginal and non-aboriginal with the main policy issues relating to the rights of non-aboriginal peoples and companies to gain access for recreation, tourism, mineral exploration and mining. One further issue concerns the preservation of significant habitat and endangered species. Linked to these are questions of royalties, compensation and other payments. The issues are complex, and, again, the emerging picture is confused by the variety of jurisdictions involved. At one extreme has been the federal and South Australian aboriginal freehold title by which access and use by non-owners is gained only following very extensive negotiations in individual

cases. Such negotiations have been needed to ensure the ongoing status of Uluru and part of Kakadu as National Parks, following the award of aboriginal title to these lands. Similar negotiations are needed between land-owners and mining companies, in both the exploration and the operational stages of mining ventures. Powers initially granted to landholders have proved so far-reaching that the federal government has bowed to pressure for legislative change which requires aboriginal landowners to follow an ongoing procedure of negotiation with mining companies through to mine development once an initial mine exploration agreement has been signed.

Aboriginal land ownership has become a major topic of ongoing research, discussion and public enquiry, and is not pursued further in this paper. However, one closely related issue deserves attention, namely the award of certain usage rights to aboriginals on pastoral leases.

Aboriginal Rights on Pastoral Leases

Paralleling the award of aboriginal land ownership has been a revived recognition of aboriginal rights on other lands, most notably on pastoral leases. Three related developments should be noted:

1) The reaffirmation of long-standing *rights of access* to engage in hunting, collecting and other traditional activities. These rights had not been revoked, but had fallen into disuse in many areas. This reaffirmation was a common recommendation in various pastoral tenure reviews.

2) Of considerable importance has been the formal recognition and *declaration of sacred sites* and other areas of significance to aborigines. In some states, access to major sacred sites is now legally under the control of traditional owners, even when on pastoral leases.

3) In response to federal pressure, the Northern Territory government has legislated to allow for *excisions from pastoral leases for aboriginal community living areas*. These excisions are not based upon traditional ownership but on a current need to provide secure tenure for small communities, usually historically tied to a particular pastoral holding. Secure tenure will enable public investment in housing and services. Following a strong reaffirmation of the underlying principles, in the Toohey Report (Australia, 1983), excisions have been made or are being negotiated on a large number of pastoral leases. Although the excised areas are usually very small and inadequate even to support a small "killer" herd, their significance on land use and management of pastoral leases should not be underestimated. Freed from the historical dependency ties on the pastoral lease, these small communities will be able to utilise adjacent pastoral lands for traditional and other purposes, less fettered by the long-established constraints imposed by dependency. Some pastoralists may well find it in their long-term interests to negotiate arrangements involving joint use of pastoral lands adjacent to excisions, including contracted rights to livestock agistment or sub-leases for grazing or other purposes.

In all these cases the long-established paramountcy of pastoralism is being abridged. Management will need to adapt to the pressures granted by these alternative uses.

OTHER DEMANDS ON RANGELANDS

Of the non-aboriginal demands now being imposed on Australia's rangelands, by far the most important and widespread are those arising from tourism/recreation and from conservation/preservation. Where these two interests converge, as in areas of high tourist and environmental value, pastoralism is almost certain to be relegated to a subordinate role or

entirely excluded. These conjoint uses are generating inexorable pressures for a comprehensive, representative system of National Parks and nature reserves across all biogeographical regions within Australia's rangelands, even in the face of concerted resistance, indeed outright hostility, from local pastoralist groups. The strength of this demand for land use change was clearly demonstrated when, even under the previous rural-dominated Queensland National Party government, a circuitous procedure was adopted to establish the Thrushton and Idalia National Parks in the midst of mulga country, in the face of persistent, strident local opposition, based upon the perceived incompatibility between sheep raising and habitat preservation on adjoining land, because of presumed threats from dingoes, feral animals, kangaroos and other "vermin."

These mounting pressures, generating a multiplicity of major and minor "flash points," clearly indicate that land policies based on *status quo* or *laissez-faire* or even desultory review are not good enough. Such approaches were adequate only when pressures for land use change were less persistent and less widespread than is now the case, and policy-makers and land administrators could rest on the comfortable assumption that there were sufficient wide-open spaces in the Australian Outback to allow satisfactory extempore compromises, involving informal arrangements for multiple land use, with "give-and-take" between landholders and a small, irregular, reasonably well-known group of other users. Given the enhanced mobility of Australians, particularly using 4WD and other cross-country vehicles, the growing threats to our native plants and animals and the attention to land degradation, it can be predicted that the pressures on pastoral leaseholders to accept multiple land-use goals and on other users to regularise their access to pastoral lands, can only be properly handed by the adaptation of leasehold tenures to these changing circumstances. This has been partially recognised in the various pastoral tenure reviews, but only adequately addressed in the South Australian review, and formalised in the Pastoral Land Management and Conservation Act, 1989, which contains mechanisms to monitor and regulate rangeland condition as well as to regularise procedures for public access to rangelands.

Quite apart from the two major land uses, described above, there are other pressures for land use change in Australia's rangelands. Most of these entail localised intensification of land use and parallel conversion of tenure to more secure title. Examples include: intensive agriculture; tourist resorts; mining; urban growth; infrastructure requirements; and even spaceport proposals. These localised developments lie outside the scope of this paper but highly relevant to the present discussion is the speculative purchase of pastoral leases in anticipation of windfall profits. The causes and consequences of land "investment" are briefly discussed later.

Whereas land speculation can best be addressed by clarification of the property rights attached to particular tenures, the demands being generated by tourism/recreation and by conservation/preservation are much more widespread and complex, requiring a combination of land use planning with land tenure reform. As with aboriginal land rights, there is a need to achieve a sensible balance between land transfer away from pastoralism to other uses, on the one hand, and, on the other, the reform of land tenure policies to facilitate and encourage an appropriate mix of land uses in conjunction with pastoralism. These two strategies are briefly discussed, below.

Conversion of Land to Recreation/Tourism and to Conservation/Preservation:

The conversion of land to these non-pastoral uses generally requires a strong policy commitment by state/territorial governments, involving a reasonable level of public support and collaboration between various government departments. This is particularly the case in meeting the goals of preservation, involving the retention of significant tracts of land in as

pristine condition as is feasible, thus requiring the exclusion of pastoralism. On the other hand, conservation, recreation and tourism can often be accommodated with pastoralism in a multiple land use strategy.

The states/territory have been proceeding at markedly different rates in establishing National Parks and nature reserves in their rangelands. The initial stages are relatively uncontroversial, since they involve the acquisition of land of high scenic attraction and tourist potential, as well as high conservation status. Also, commonly, these areas have very low pastoral value, Examples include Uluru and Kakadu in the Northern Territory, Mootwingee, Kinchega and Sturt in New South Wales, Simpson Desert, Carnarvon and Iron Range in Queensland, Lake Eyre, Simpson and Gammon Ranges in South Australia, and Hamersley Range in Western Australia.

The task becomes much more complex and problematic at the stage of acquisition of a comprehensive, system of parks and reserves, fully representative of the ecological diversity within each biogeographic region, while also ensuring the survival of endangered species. This must entail the acquisition of some lands of much higher pastoral productivity where the conservation values and tourism benefits to the local economy are not so readily discernible, particularly to local landholders. Futhermore, the sprinkling of these reserves throughout pastoral lands is sure to maximise the scope for local opposition, on the grounds of land use incompatibility, already mentioned. These local concerns are sure to present formidable management problems, at some cost, to national parks services. In some cases, the only solution may be to engage in a form of multiple land use, involving grazing licences with strict limits on livestock numbers and with other tight management provisions, as the only expedient solution to otherwise very costly management methods.

An example of a comprehensive scheme is the proposal for a network of fourteen nature reserves within the Queensland mulga country, from research commissioned by the Queensland National Parks and Wildlife Service (see Purdie, 1986). As already mentioned, the establishment of the first of these reserves generated such conflict, that a persistent, determined governmental commitment was needed to achieve success. Somewhat perversely, the biogeographic regions within Queensland's rangelands have a smaller and less representative set of reserves than do Queensland's more closely settled coastal areas. This, in part, reflects the strong ongoing opposition of pastoral landholders to establishment of reserves in their vicinity, reinforced by an ongoing belief in the priority of pastoralism in all rangelands.

Multiple Land Use: Pastoralism with Conservation/Preservation:

Of comparable importance to the assignment of land to conservation/preservation uses is the pursuit of strategies to ensure that conservation and preservation objectives are pursued in conjunction with pastoralism.

The most basic conservation goal is coincident with ongoing pastoral land use, and this cannot be considered as a separate land use. This is the goal of sustainable pastoral land use, which also entails effective land care programmes. The complex set of policy issues and programmes involved in pursuing these goals lies outside the scope of this paper. However, it is worth noting that New South Wales and South Australia have both implemented land tenure reforms directed towards monitoring either stocking rates or the impact of grazing to ensure that degradation is minimised. In both cases there are penalties and enforcement provisions.

The adoption of conservation goals in leasehold covenants can be interpreted as a possible prelude to further policies by which more avowedly preservationist objectives may be pursued. These may well be directed towards

preservation of remnant significant ecosystems in near-pristine condition, by limitations on the intensity and timing of livestock grazing, thereby establishing a system of multiple land use, entailing expansion of the public involvement in a joint tenure arrangement. In its more modest form, this can be achieved by revision of leasehold covenants. In its more radical form, where preservation outweighs production goals, the tenure system should reflect this relative weighting by having the land revert to some form of public reserve, with pastoralism being pursued under occupation licence or gazing rights with strict limitations. In either circumstance, compensation for diminution of property rights would be due to the leaseholder. These forms of tenure may well be appropriate for extensive areas of grazing lands of low productivity and high sensitivity on the arid margins. They may also be appropriate for many wetland areas, in both the arid zone and also in the northern savannas, particularly adjacent to the coastline.

One very recent innovative land tenure, being used selectively in South Australia, offers prospects for formalising a balanced multiple land use and land management plan under a joint tenure on former pastoral leases which have a high use value for native preservation or tourism or some other land use. This new tenure is title Regional Reserve, and is initially conceived as a lower-cost, more readily manageable alternative to a National Park. On the initiative of the National Park and Wildlife Service, the two relevant departments (Lands, and Environment and Planning) will negotiate an agreement with the pastoral lessee by which appropriate areas are designated for preservation or tourism purposes, with livestock excluded, and with limitations on livestock numbers on the remaining pastoral area. The lessee continues to have management responsibilities over the entire lease and has the right to develop tourist facilities and activities, by agreement. The lessee receives compensation for any reduction in pastoral capacity and also a reduced, incentive-related annual rental charge. Only select areas will be designated as Regional Reserves, with the first two being Innamincka, focussing on the wetlands of the lower Cooper system, and Arkaroola, involving tourism and conservation in the Northern Flinders Range. The Regional Reserve concept is a logical response to concerns about excessive amounts of land being absorbed into National Parks which are then inadequately financed and managed. As a joint-tenure, multiple-use system, it can be classified under categories 6,7,10 or 11 in Table 1, according to the relative balance in tenure and use.

Multiple Land Use: Pastoralism with Tourism/Recreation

As elsewhere, tourism and recreational activities have proliferated and diversified in recent decades, with considerable further growth to be reasonably expected. Although tourism/recreation typically is focussed at major points of attraction, there is also a significant level of "free-ranging" activity, much of which is strongly attracted to the rangelands because of its combined sense of freedom and of challenge, with the opportunity to venture into the "wide open spaces", to experience "wilderness", to enjoy some spectacular and unusual scenery and because of the availability of specialist recreational opportunities: hunting, fossicking, cross-country 4WD ventures, safaris, working holidays on stations and so on.

Recreation/tourism is not "land hungry". It requires exclusive use of only very limited tracts of land, most notably for capital intensive resorts and related infrastructure. When properly managed, recreation/tourism can be complementary to other land uses, including both pastoralism and conservation/preservation, in a system of multiple land use. This offers a challenge and an opportunity for rangeland landholders and administrators to achieve an effective integration of these activities. Various problems and possible solutions, particularly relating to controlled access and to educating recreationists, have been addressed in the various pastoral land

tenure reviews. South Australia's Regional Reserve tenure is certainly the most innovative of various recent proposals.

On the more productive pastoral lands, particularly those controlled by large stations, recreationists are regarded as a major nuisance, to be discouraged in all possible ways. The large stations on the Barkly Tablelands well exemplify strictly monofunctional land use and encapsulated, self-contained life-support systems (see Holmes, 1984). On the more productive lands, with capital improvements and tight herd or flock control, uncontrolled visitors can create serious problems. Furthermore, the pastoral enterprise is so specialised and substantial that pastoralists can see little advantage in income-supplementation from recreation use.

It is an entirely different matter on the most marginal pastoral lands of low productivity, with few capital improvements, few fences, relative uncontrolled herds and low incomes. In this situation, many pastoralists welcome the prospect for income diversification, but commonly are handicapped by their isolated location, well away from major centres or routeways, and largely visited by non-local, self-contained parties of hunters, fishers and other recreationists in 4WD vehicles, yielding few income-earning prospects, even where recreational opportunities are quite high. This is well illustrated in the Northern Territory Gulf District where the recent proposal to convert pastoral leases to multipurpose Crown leases may have little positive effect, given that the income potential from tourism may prove even more elusive than that from "harvesting" of semi-feral cattle. (see later).

One context which does provide significant opportunities for land use diversification is in more accessible locations, most notably those adjacent to major population centres or to well-frequented tourist locations. Near major centres, such as Darwin, Broken Hill and Mt Isa, some landholders have tried to turn to their advantage previously burdensome recreational pressures from local urbanities. This has led to well-established informal agreements such as exclusive hunting rights to a small group of identifiable individuals at an annual fee. These hunters can then share with the landholder a common interest in effective recreational/pastoral management.

Where significant capital investment in tourist facilities is undertaken,the accepted procedure is to transfer the needed land from pastoral lease into some other land tenure. Commonly the two land parcels remain under single ownership, thus allowing a complementary form of land use, with managed access to the pastoral lease. Where separation of ownership does occur, the complementary relationship can still be maintained by negotiation, ensuring continuing multiple use of the pastoral lease for a set fee.

Land Speculation and Prospective Land Use Change

A rapidly expanding form of land "use" within Australia's rangeland is the speculative purchase of pastoral leases in anticipation of windfall profits from prospective land conversion to more intensive uses. Endemic, low-level land speculation is well entrenched on the most marginal leases which offer very low entry costs and negligible "operating" expenses, as identified in the Northern Territory Gulf Country (Holmes, 1990 a). This must be fairly widespread, with the owner engaging in income-earning only sporadically and optimistically, most commonly by an occasional contract muster of feral cattle.

Since 1988 there has been an epidemic of speculative activity on Cape York Peninsula, triggered by the spaceport proposal and a number of over ambitious resort proposals, and fuelled by the customary over inflated anticipation of benefits. Speculation has been greatly facilitated by the progressive reinterpretation of the property rights attached to pastoral leasehold by the previous Queensland government. This was achieved by over generous Ministerial approvals of freehold proposals and by an over extension of the

rights attached to leaseholders, and even to occupation licences. This writer has made the following comments on the outcome of government policy:

"In recent decades, the state government has been abdicating its legislated powers over Pastoral Leases and occupational licences. It is thereby also abdicating its responsibilities to administer leased and licensed crown land in the public interest.

In doing so, the government has conferred an over extended set of property rights on holders of leases and licences, in many instances closely paralleling rights of freeholders. These additional property rights are rightly seen by land speculators as providing an excellent new land market opportunity, to command land in strategic locations at very low entry cost, relative to prospective final land value if development proposals reach fruition. However, prices are disproportionately high relative to any current use of the land. Also there is a powerful spill-over effect onto other lands, grossly distorting the land market.

Intending *bona fide* pastoralists are priced out of the land market, further undermining the already precarious status of the Peninsula pastoral industry. Other prospective users, including land purchases for conservation, aboriginal or tourist purposes will have to pay unrealistic prices to land speculators.

This speculative land market can readily be extinguished by a clear restatement of the public interest in these leased and licensed crown lands and of the limitation of the rights of lessees and licensees to those related solely to pastoral land use, thus quarantining pastoral land against speculative influences.

An effective land use strategy for the Peninsula will need to be accompanied by a sharp change in the interpretation of land tenure legislation, restoring the powers and responsibilities of the government, particularly in the context of land conversion to non-pastoral uses. Without an effective policy on land tenure, any land use strategy will be very difficult to implement." (Holmes <u>in press</u>).

This divergence between recent Queensland practice and that generally applied in other states is clearly indicated by reference to the 1986 *Final Report on Pastoral Land Tenure* forwarded to the Western Australian Department of Premier and Cabinet, which reaffirmed three basic principles:

• Continuation of the leasehold tenure system, with no provision for pastoral freeholding.

• Provision for any future land use change to be by government resumption and reallocation to other tenures.

• Fair compensation, but based only on the assessed value for pastoral production.

These provisions seem to be necessary if land use change within Australia's rangelands is to be achieved without undue distortion of land markets and consequent negative outcomes regarding land use options and land use planning. Again, it is a matter of ensuring that the land tenure system, and particularly the determination of individual property rights, is compatible with land use requirements.

A REVISED MODEL OF LAND USE AND LAND TENURE FOR AUSTRALIA'S RANGELANDS

With the continuing growth in land use options and in opportunities for competition, conflict or complementarity, so also will there be growing challenges to rangeland administrators and planners. While land use planning

may have seemed a needless activity until recently, it is clearly becoming essential. This is well evidenced by the preparation of a draft land use plan for the Northern Territory Gulf District (Department of Lands and Housing, 1990), the proposal for a comprehensive land use strategy for Cape York Peninsula, and the development of leasehold administration procedures in New South Wales and South Australia, which provide powers equivalent to normal planning provisions.

It can be argued that, in Australia's rangelands, the most appropriate vehicle for planning is through reform of the system of leasehold tenure, by development of an updated set of tenures and revised covenants more attuned to current concerns about sustainable use, about access for other parties and about effective procedures for land use change. The leasehold system can provide much-needed flexibility, and adaptation at the individual-property level, which is more appropriate in the rangelands, rather than rely on the formal land use zoning procedures which are suited to more populated areas with a multiplicity of small landholdings. This property-related flexibility may well prove to be the most powerful reason for retaining the leasehold system, and is currently being utilised, to an increasing extent, in the N.S.W. Western Division (see Campbell and O'Shea, 1990).

This move towards property-based flexibility in the application of land policies should be paralleled by land tenure reform to accommodate emerging land use options and new imperatives towards land use planning. The old imperatives underlying pastoral land tenure served well for a period of one century. There were founded upon an assumed predictable progression towards intensification of land use and investment, requiring a parallel progression towards privatisation of land ownership by conversion to more secure tenures, with land alienation to freehold as the final step. This was founded upon a coherent philosophy of land development and closer settlement.

This model of sequential change in land use and land tenure has long been obsolete, yet it has not been replaced effectively by any alternative model upon which a philosophy of land tenure legislation and administration can be based. It is argued here that the new model can indeed be discerned, founded upon a full recognition of the emerging land use options for Australia's rangelands with a set of land tenures mirroring these options, more effectively than currently indicated in Table 1.

A useful starting point is to examine the geographical contexts within which land use change is occurring. Our growing knowledge of rangeland ecosystems and productivity levels can be of considerable help in this task. The most critical basis for land tenure differentiation lies in the broad zonal gradients in land productivity and land resilience which can readily be identified, even though these two attributes are only imperfectly connected. This gradient is roughly paralleled by other zonal gradients including:

- diminishing livestock densities and income per unit area;
- lower land values and capital inputs;
- a lower relative importance of pastoralism *vis-a-vis* other uses, if only because of the diminishing value of pastoralism;
- further enhancement of environmental compared with economic values, partly from ecological fragility and partly from higher wilderness/habitat values;
- greater attractiveness of the land for certain other purposes, including recreation, conservation and, in some areas, aboriginal use.
- accordingly, a strengthening of the accumulated public and outside private interests relative to the private interest residing with the landholder.

It is argued that these recognisable, interrelated zonal gradients should be examined as a possible basis for defining and delineating geographically distinct sets of lease hold tenure systems, involving possible lease terms as well as covenants.

This model of geographically differentiated land tenure systems is founded upon two major zonal pastoral productivity gradients, the first being associated with increasing aridity, proceeding towards the desert margins, and the second with lower pastoral productivity in the higher-rainfall northern savanna zone. These zonal models provide only an approximation of localised diversity in pastoral productivity, but, even within this diversity, there generally persists an inverse relationship between pastoral value and the value of the land for other purposes, most notably recreation and preservation. This fortunate inverse relationship provides a very useful basis for differentiation of recommended land use and related land tenure, with the more secure pastoral tenure on the more productive land, as is proposed in the *Draft Gulf Region and the Development Study, 1990,* described below.

The most noteworthy exception to this suggested inverse relationship occurs in the wetlands and adjacent frontage country in almost all contexts, extending from northern estuaries and riverine tracts to the channels, billabongs, swamps and ephemeral lagoons of the interior. These areas will require carefully negotiated multipurpose tenures similar in character to South Australia's Regional Reserves, to ensure effective complementary multiple land use.

THE NORTHERN TERRITORY GULF REGION: LAND TENURE REFORM FOR LAND USE PLANNING

The Northern Territory Gulf Region provides a useful context in which to observe forces which are leading to land use differentiation, prospectively facilitated by land use planning and land tenure reform. This region contains some of Australia's most marginal pastoral lands. Cattle raising, never securely established on these lands, is in retreat under the unrealisable management and investment pressures exerted by the Brucellosis and Tuberculosis Eradication Campaign. The Department of Lands invited this writer to examine the viability of marginal leases and to identify alternative uses for non-viable pastoral leases, (Northern Territory 1986; Holmes 1990). Already two alternative uses have emerged, in an informal way, on the most marginal leases. One use is an entrenched form of low-cost, endemic land speculation, facilitated by a highly entrepreneurial Sydney-based real estate dealer who arranges a steady turnover of five or six leases, acting as agent for seller, for buyer and then agent "manager". These leases are not placed on an effective production footing, but are subject to token investment and management. The second use is as residential plus semi-subsistence blocks on a group of leases engaging in sporadic mustering only when the pressure to pay outstanding bills becomes too great.

Within the Gulf Region there is a very marked productivity gradient from south to north, but with considerable local variability, particularly in the transitional zone between Barkly and Gulf ecosystems. This leads to a definable mosaic of lands of varying pastoral productivity, which this writer (with the assistance of Graeme Hockey, N.T. Department of Lands and Housing) has delineated into core management areas for pastoralism, together with areas suitable for ongoing bush mustering and finally, areas of no pastoral value. Also, as part of the investigation, this writer examined possible land use options for non-viable pastoral leases. This included the delineation of prospective areas for National Parks, nature reserves and wilderness preservation. While the report included preliminary discussion on alternative pastoral tenures, these lay beyond the terms of reference of the investigations.

However, it is significant that the Northern Territory Department of Lands and Housing has used the Holmes Report as the starting point for a more wide-ranging investigation into future directions for land use and regional development in the Gulf Region, including recommendations for restructuring land tenures, with an expanded use of Crown leases to encourage multiple

land use, involving a mix of pastoralism, recreation and preservation uses, similar to South Australia's Regional Parks (see Northern Territory, 1990). If implemented, the recommendations of this report will lead to a mosaic of land tenures and land uses, consistent with the environmental and pastoral productivity mosaics identified in the 1986 report.

While the 1990 report is only a draft, released by the responsible minister in June and now receiving public comment, it nevertheless is indicative of the major new policy directions which will emerge in recognising the relationship between land capabilities, land use prospects, land management needs, land tenures and overall land use planning, which will become more firmly established within Australia's rangelands, particularly in those areas where pastoralism's loss of status as the prior and paramount land use requires much more attention to future options.

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Figure 1. Recommended pastoral management areas for the Northern Territory Gulf Region. (Source: N.T. Dept. of Lands, 1986)