



*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

# THE CURRENT STATUS AND IMPACT OF FENCING IN THE COMMUNAL-TENURE AREAS OF NORTHERN NAMIBIA

M. Fowler<sup>1</sup>

## 1. INTRODUCTION

This paper provides a review of the literature on the fencing of the communal-tenure rangelands in northern Namibia and summarises the current state of play at both field and policy levels. Implications of the enclosure of these lands are discussed, both for the different stakeholders in the process as well as for the agricultural sector as a whole. The paper concludes with some suggestions as to the likely evolution of the fencing issue in the near future, makes a plea for additional research to be undertaken as a matter of priority in a number of areas in order to inform the policy-making process, and proposes a number of interventions which should immediately be made in order to assist farmers adversely affected by the fencing movement.

### 1.1 The phenomenon

Over the last twenty years, large portions of rangeland have been excised from the communal-tenure areas in many places in the north of Namibia, particularly that area lying to the north-east of the Etosha National Park, in Oshikoto region which is located in the north-central part of the country (*see Figure 1*). The process, which has involved the enclosure of communal-tenure grazing land to form *de facto* private farms, has been a rapid one, such that extensive tracts of land in eastern Oshikoto region are now being operated and managed as private farms. For the most part, the communal pastures in question were previously sparsely settled and/or only used on a temporary basis for grazing in the dry season by livestock belonging to herders living to the west. For a number of

---

<sup>1</sup> Policy and Planning Adviser, Division of Agricultural Planning, Department of Agriculture & Rural Development, Ministry of Agriculture, Water and Rural Development (MAWRD), Private Bag 13184, Windhoek, Namibia. The views and opinions presented in this paper are those of the author and do not, in any way, necessarily reflect the official views of the MAWRD, nor of any other organisations with which the author is associated.

reasons, the land allocation process which traditionally operated within communities on the basis of customary law has been undermined by a process of allocating areas of rangeland land to individuals, usually in return for payment to the traditional authorities. These areas have subsequently been fenced-off from the communal grazing land.

Some of these farms are extremely large, even by private-tenure farm standards. For example, a fence running along one side of an enclosed farm in the Okongo area was measured as being more than 20 kilometres long (Fuller & Turner, 1994: 22).

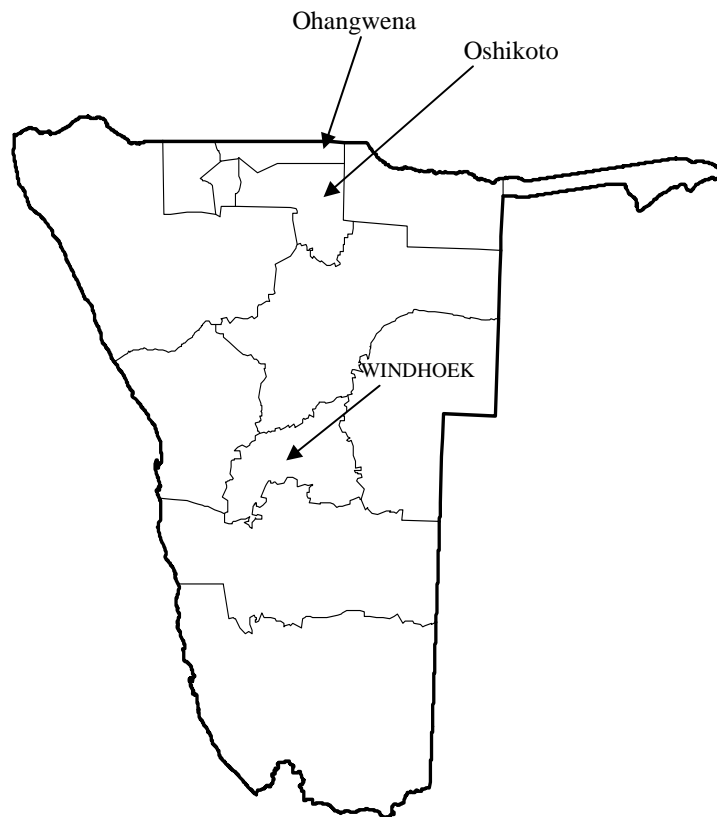
## **1.2 The methodology used in drafting the paper**

Given the office-bound nature of the work of the author, original field research into the issue of fencing was not possible. Nevertheless, as a part of his work activities he has attended a number of meetings at which the fencing issue has been raised and the interest which he showed in the subject meant that he was asked to review some of the reports drafted by the researchers involved in the detailed study of fencing in eastern Oshikoto, carried out under the auspices of the Overseas Development Institute, ODI, and the Namibian Economic Policy Research Unit, NEPRU (Cox *et al.*, 1998). For these reasons, the approach followed by this paper is largely one of a review of the literature – both published and grey – supplemented, wherever possible, with ideas and information obtained from discussions with those who have carried out work in the field.

Given the comprehensive nature of the ODI/NEPRU study and the fact that it was carried out only recently, the report of the study provided the principal source document for this paper.

## **1.3 The geographical focus of the paper**

While the enclosure movement has been taking place over much of the communal-tenure land in the country, the focus of this paper is on the fencing taking place in the north-central part of Namibia and, in particular, in Oshikoto region – one of the four regions which cover the area formerly known as ‘Ovamboland’ (see Figure 1).



**Figure 1: Main regions in the Northern Communal Areas where fencing is taking place**

#### **1.4 Why study this topic?**

The area under review contains a high proportion of the country's poor and destitute. For this reason, any changes (*de facto* or *de jure*) in its land tenure status can have a significant impact on poverty. The enclosure of vast areas of rangeland means that the poor no longer have rights to the resources (mainly pasture and water) thus enclosed and this directly reduces the livelihood options of those amongst the poor who have livestock.

#### **1.5 The position of livestock in rural households' livelihood systems and the economy at large**

Throughout most of the communal-tenure farming areas, livestock are the backbone of the farming systems, with crop production being important but making only a marginal contribution to farm incomes. In the study area, for

example, arable farming provides less than 10 per cent of farm incomes (National Planning Commission, 1994:161<sup>1</sup>. Livestock are kept because they have multiple uses – meat, milk, manure and hides – as well as increasing the efficiency of arable farming through the draught power which they provide. They are, in addition, a means by which savings can be accumulated and earn interest.

However, not all households hold livestock, and surveys of livestock holdings amongst rural households in former Ovambo region show that ownership is highly skewed. More than a quarter of all cattle are kept in herds of more than 100 head and owned by only 5 per cent of the households, while almost 40 per cent of farm households own no cattle at all<sup>2</sup>. Thus, 90 per cent of the cattle in the region are held by only 37 per cent of households (Grimm, 1994:19). It also appears that there is an increasing disparity in ownership, with wealthier individuals maintaining or increasing their herd sizes while an increasing number of households own no livestock at all (FAO, 1992: Annex 1:7).

Moreover, there are indications that the impact of drought serves to aggravate the unequal distribution of livestock holdings, with small herds being wiped out – through death or emergency sales. The owners of larger herds usually have the resources (both on- and off-farm) to tide themselves and their herds over until the next rainy season. For this reason, any process which is making households with small livestock holdings more vulnerable to drought – and it has been argued that this is one impact of the fencing-off of communal-tenure rangeland for private farms – serves to increase inequalities<sup>3</sup>. This fact, alone, underlines the importance of investigating further the fencing phenomenon.

At the same time, the livestock sub-sector is of considerable importance to the national economy – livestock and meat provide approximately 90 per cent of agricultural exports which, in turn, make up more than 15 per cent of the country's visible export earnings. Furthermore, livestock husbandry contributes 98 per cent of national agricultural income. For these reasons, any changes which are likely to affect the productivity and rate of offtake of the herds in the northern communal-tenure areas are likely to have a significant impact on the economy as a whole.

## **2. THE PROCESS**

### **2.1 Description**

The first reports of communal-tenure rangeland being fenced-off in southern Oshikoto region, occurred in the late-1970s when local businessmen began to seek and obtain approval from local chiefs for large areas of land to be allocated to them for grazing<sup>4</sup>. Once it had been thus allocated, the new 'owners' argued that by fencing the land they were merely demarcating its boundaries.

If someone in the communal-tenure areas wishes to construct a house, they first apply for land and an adjacent area on which to plant crops to the village headmen who have customary control over land matters. On the other hand, however, for rangeland which lies outside the village area, the request is made to the senior headman or traditional leader of the area or, in some instances, to the King.

Because the decision to allocate rangeland is made by the tribal authorities who in most cases are located outside the area in question (and therefore, it can be assumed, have little detailed knowledge of it), the first that the communal-tenure farmers whose livestock have previously grazed the land know about permission having been sought (and granted) for the area to be excised, is when the fencing is put up.

During a survey of fencing carried out in central Oshikoto region in 1994, a number of chiefs confirmed that it was common for a far larger area of land to be enclosed by individuals than had been envisaged by the authorities when they had approved the application to fence. In addition, reports have appeared of some land areas being appropriated without any authorisation at all having first been granted by the traditional leaders.

However, it is not only grazing land which has been enclosed - water sources are also fenced off since adequate water supplies are essential for any livestock enterprise<sup>5</sup>. These sources include natural ponds formed during the rains and in which water remains for some time after the end of the rains. In addition, hand-dug wells are scattered throughout the rangeland areas. Finally, there was a rapid increase in borehole construction as part of the government's 1992/93 drought relief measures in the eastern part of Oshikoto region.

All three of these types of water sources have been enclosed and thus incorporated into 'private' holdings: for example, most of the boreholes installed by the government in the Onamisu area which is located near the eastern boundary of Oshikoto region, have been enclosed by private fences. The only

borehole not fenced is, effectively, controlled by a farmer whose fence runs adjacent to the borehole. In the case of this area, it is understood that government employees heard that boreholes were to be drilled in the area and immediately set about fencing land adjacent to their future sites (Cox *et al.*, 1998: 74). Other examples are given by researchers from the field, of “defensive” fencing taking place around boreholes provided by the government: residents in the surrounding area who make use of the water from that borehole are forced to fence the structure in an attempt to prevent the degradation of the rangeland surrounding it which would threaten their own herds. They may also fence the structure before it and the surrounding pasture are annexed by a wealthy, well-connected ‘encloser’ from outside the area. Indeed, there are even reports of these communities starting to charge non-local herders wishing to use water from this source.

Recent field research in eastern Oshikoto region has shown that two-thirds of the boreholes in a study area, most of which were provided by the Government (others are traditional wells) for use by local communities, now lie within or along the boundaries of fenced land. Most of the remainder are in the process of being fenced-off. This amounts to the *de facto* privatisation of water supply – water being the principal scarce resource in the area and a key input to livestock farming. Not all water requirements for these new private farms are met in this way – Silfverberg (1995:41) notes that a significant amount of water infrastructure investment is undertaken by the ‘enclosers’ themselves subsequent to the fencing of the grazing areas (see Section 3, below).

## 2.2 History

The enclosure of land began shortly after the demarcation and fencing of the “Mangetti Block” which lies along and immediately to the north of the Veterinary Cordon Fence, stretching from near Oshivelo eastwards, as far as the main road to Rundu in Kavango region. Indeed, some researchers maintain that the fencing movement was triggered by the creation of this “FNDC<sup>6</sup> mega-ranch” (Green, 1990: 5) which comprises, among other things, a large quarantine farm and 150 individual holdings used for livestock rearing. Fuller *et al* (1996: 9) report that farmers felt threatened by the action of the South African authorities in enclosing the Mangetti Block. They therefore decided that ‘defensive fencing’ was necessary in order to prevent any possible expansion northwards of the Mangetti farms which would eat into the grazing areas which they had

traditionally made use of. In this way, they would be able to preserve their access to the resources before others did the same.

Given the absence of any land policy and the lack of any constitutional recognition of customary land rights in communal-tenure areas, 'illegal' fencing grew rapidly in the 1980's and accelerated around the time of Independence in 1990<sup>7</sup> (and has reportedly increased since then). Thus, by the early-1990's the enclosure of land was being regularly mentioned in the literature: "... There has been an unverified amount of unscheduled fencing and water development north of Mangetti. These official and unofficial ranches are largely held by businessmen and politicians who are seldom resident and who derive secondary rather than primary income from them". Again, in 1993, the report of a field survey carried out in the former Ovambo region, noted that, "some illegal cattle enclosures were observed near the cattle post" (MASDAR Zambia Ltd., 1993:15). Indeed, by this date, the phenomenon of fencing had become so widespread that the same report describes farmers as belonging to one of four categories, namely: "village", "absentee", "legally-enclosed"<sup>8</sup> or "illegally enclosed" (*ibid*:19)

In 1994, an aerial survey of fencing in Oshikoto region for the first time provided hard evidence that extensive land enclosure had taken place. It was also able to show that the fenced area was continuing to expand rapidly. At this time, too, many reports on the phenomenon and the impact it was having on herders' ability to graze their cattle on the remaining communal-tenure rangeland, began appearing in the local print media (*see Section 5, below*).

The Ndonga Tribal Authority encouraged and authorised local people to undertake 'defensive fencing' in accordance with a specific approval procedure. Copies of the approved 'agreements' were kept. Thus, by the end of 1996, the Authority had registered records of more than 100 fenced properties. This did not, however, prevent the alienation of some areas without the approval of the Authority and its gradual loss of control over the process of land allocation has continued since Independence - evidenced by a significant drop in the number of registrations since 1990 (Cox *et al.*, 1998: 39).

The situation today is, to all intents and purposes, that the new elite is able to enclose communal-tenure rangeland for private use without obtaining authorisation from anyone. This land-grab<sup>9</sup> is encouraged by various factors including the realisation among some enclosers that good returns can be



obtained from market-oriented livestock husbandry and that fences are needed if such a system is to be operated efficiently (Seely *et al.*, 1994:16).

Evidence that enclosure is continuing apace is provided by Cox *et al* (1998:52) who, during their field work, found markers and posts placed on the ground in several places along what were clearly future fence lines. The increasingly-fast pace of land enclosure in the recent past may, perhaps, be caused in part at least, by potential enclosers anticipating that legalisation of *de facto* private ownership of land through enclosure is likely in the near future. The reasoning of these farmers is that since the *status quo* is likely to prevail with any new law, they should obtain such an asset while its cost remains minimal – once the legislation is enacted they will simply obtain formal title to the land which they hold.

Pressure may also be coming from the traditional authorities, themselves, who perceive that the income they are earning from allocating land for enclosure will dry up once the Communal Land Bill has been enacted, “hence the allocation of grazing land is rapid so as to reap the benefit of payment while it is still possible” (Blackie & Tarr, 1998: 3).

### **3. THE CURRENT EXTENT OF THE ENCLOSURES AND THOSE RESPONSIBLE FOR IT**

#### **3.1 Spatial distribution**

Researchers and other observers report that fencing is a widespread phenomenon throughout the communal-tenure areas, although most reports and research have focussed on its evolution in Ohangwena and Oshikoto regions, as well as Omaheke in the east to the south of the VCF (Quan *et al.*, 1994:90). Indeed, the only communal-tenure area administrative regions having a high population density which have not been fenced to any great extent are Kavango and Caprivi (Blackie, 1998:7). For example, reports indicate that the enclosure of land has now spread to areas where it had previously been unheard of. *The Namibian* (1994: 4) reported that “rampant illegal fencing.... right through traditional communal areas” in Kaokoland<sup>9</sup> was being carried out by entrepreneurs from “far off places”. It is also widespread in the eastern communal-tenure areas which lie to the south of the Veterinary Cordon Fence<sup>10</sup>.

As noted earlier, the enclosure movement spread rapidly in the area to the north of the Mangetti Block and has expanded outwards from there ever since. It was further encouraged by the ending of hostilities in the north-central part of the

country shortly before Independence and the return of a significant proportion of the population from Angola, some of whom immediately sought to obtain large land holdings. More recently - the past three to five years - eastern Oshikoto region has witnessed a rapid increase in the fencing of large pieces of land, such that one study estimates only one-quarter of the region now remains un-enclosed<sup>12</sup> (Blackie & Tarr, 1998:3).

### 3.2 The 'enclosers'

Tapscott (1994[a]) described those undertaking the fencing as being part of an "unholy alliance - the political elite, the traditional elite and business people". Indeed, this has been confirmed by other field researchers who have interviewed 'enclosers' and categorised them as representing powerful political and economic interest groups and having good contacts with customary authorities; they include business people, urban-based wage earners<sup>13</sup>, traders, teachers, nurses, clergy, civil servants, politicians and other top government officials, and others with access to off-farm income (Cox *et al.*, 1998: 40). They also include a few full-time farmers who own large livestock herds (Quan *et al.*, 1992:92).

Clearly, then, they are largely town-based, with few of them resident on or near their farms, while only some of them are from the local area. Not surprisingly, given the length of fencing which is required to enclose even a small area of land, it is these people - the wealthier ones - who are the only ones able to meet the considerable expenditure involved<sup>14</sup>. Indeed, the high cost of such fencing also explains why many of the areas being privatised in eastern Oshikoto region are not completely enclosed, since the encloser probably has insufficient funds to complete the work in one go (Cox *et al.*, 1998: 51). For the individual 'encloser' his<sup>15</sup> primary concern has been to establish visible ownership of the allocated area, driven by the fact that "possession is nine-tenths of the law" and should any legislation on fencing be enacted, *de facto* private occupation would be formalised. Receiving no clear signals to the contrary, potential 'enclosers' have thus been encouraged to apply for land (Tapscott, 1990:20).

Members of the wealthy elite are also able to afford the payment required by the traditional authorities for the land to be allocated to them, a not inconsiderable sum in certain instances<sup>16</sup>. In addition, the provision of water infrastructure can be an expensive investment - costing anything between N\$ 37,000 and N\$ 196,000 per unit (Blackie, 1998: 3<sup>17</sup>).

Thus, less well-off individuals are excluded from the fencing option and from the resources the fences enclose.

#### **4. GOVERNMENT POLICY ON LAND ENCLOSURE**

##### **4.1 Legal status**

Despite the fundamental consequences of enclosures, those acquiring exclusive access to land by fencing are not, strictly speaking, breaking any laws, since unrepealed legislation means that traditional authorities retained *de facto* control over land matters (Cox *et al.*, 1998:13) and have continued to allocate land at their discretion. It has been argued that in the absence of any legislation, such action is not illegal.

##### **4.2 Statements made by leaders and other opinion formers**

One of the resolutions of the National Conference on Land Reform and the Land Question, held in July 1991, was that the communal-tenure areas should be retained and developed – various resolutions to this effect were passed, including a plea that the practice of paying for land, particularly in the north, be stopped, that fencing be prohibited and that all “illegal” fences be removed (Werner, 1997:4).

At this time, shortly after Independence, fencing was a relatively rare phenomenon. However, as the process ‘took off’ in the years shortly after Independence (*see above*), reports on fencing, and on the reaction to it of government officials and politicians, began appearing in the press. For example, *The Namibian* carried a report as early as November 1993 that the Cabinet had expressed its view that action should be taken to stop illegal fencing in the communal-tenure areas (26/11/93). Shortly thereafter, the then Minister of Lands, Resettlement and Rehabilitation, stated that “illegal fencing of communal land cannot be tolerated and fencing-in grazing areas in a way which bars the rest of the community is against Cabinet and the Constitution”. However, he stated that many of the large farms in the communal-tenure areas were legal “because a local chief or headman gave permission for the fences”. Rather surprisingly, perhaps, he emphasised that there had been “no complaints at all of headmen handing out land to the detriment of the community” (*The Namibian*,; 09/06/94). The Minister went on to note that “investigations are underway to determine

illegally fenced off areas and action would follow the new act" (*The Namibian, op cit.*). There is no evidence that such investigations were, in fact, ever carried out.

More recently, President Nujoma declared a moratorium on fencing of all land in excess of 10ha, effective from March 1997. However, not surprisingly in the absence of any census of the existing fenced areas, the moratorium apparently had little impact and the process has continued unabated. Furthermore, it would appear that the President was referring to "illegal" fencing – in other words, that fencing which had taken place without the consent of traditional authorities. For the bulk of the area already fenced any moratorium would not have had any relevance since it was authorised by the traditional authorities (Cox *et al.*, 1998:15).

## 4.2 Land policy

The absence of any constitutional recognition of customary land tenure rights in communal-tenure areas and of a comprehensive land policy until very recently, resulted in communal-tenure farmers and traditional authorities having no recourse to statutory law to defend their rights (Cox *et al.*, 1998: 39). Powerful interest groups sometimes used this policy and administrative vacuum<sup>18</sup> to their advantage and ignored customary land tenure rights to obtain fenced farms.

It was not until late-1997 that the White Paper on the National Land Policy (MLR&R, 1997) was published. It addressed the fencing issue by declaring (*p.* 25) "an immediate end to any new fencing (for private enclosure of non-residential or crop land)". An earlier draft had included the phrase, "any fencing erected after the date of adoption of the Land Policy will be removed without compensation irrespective of whether or not it had been with the approval of the traditional authority". This did not appear in the final version of the Policy document. The document was discussed and approved by the National Assembly in early-1998; the Communal Land Bill has still (the end of the third quarter of 1998) not been debated by Parliament, although the latest information is that it has been forwarded to the Council of Traditional Leaders for comment, which is explicitly provided for in the Constitution – and will subsequently be debated in Parliament.

The Policy bravely states that before the fencing of land is approved, "it must be demonstrated that enough land remains available for other local users at present and in the foreseeable future" (MLR&R, 1997:25). Given the impact that fencing

has already had on the bulk of the rural population excluded from the enclosures (see Section 5, below), this could prove virtually impossible to demonstrate.

It has also been argued that the fencing movement has served to impede the broader land reform process, since the 'enclosers' are those who in the absence of the option to enclose, would have been most likely to press for immediate land reform. However, they have been able to obtain land relatively easily. It is also felt that the relatively slow uptake of loans under Agribank's Affirmative Action Loans Scheme can be attributed, at least in part, to the enclosures - there being no incentive for potential large-scale farmers from the communal-tenure areas to purchase private-tenure farms south of the Veterinary Cordon Fence.

### 4.3 The Communal Land Bill

Under the Communal Land Bill which was recently published, the communal-tenure areas will continue to be held in trust by the State for 'traditional' communities residing in them (MLR&R, 1998: Clause 17); the Bill does not explicitly recognise collective ownership nor secure group user rights to communal grazing land and water points, nor does it provide a mechanism for formalising communal tenure through applications made by groups to the Communal Land Boards<sup>19</sup> which are to be established under the Act. It would therefore appear that, once again, the opportunity for communities to take effective control of their resources has been lost.

The Bill explicitly prohibits fencing of the rangeland areas once the Bill is enacted, while existing fences will be removed unless they have been authorised "in accordance with the provisions of this Act" (*ibid*:18). The *de facto* owners of the enclosed properties will have to apply to the Land Boards within three years of the enactment of the Bill, for authorisation to retain the existing fences on the land. This application will need to be accompanied by a supporting letter from the chief/traditional authority who gave consent for the fence(s) to be erected.

A Board will, itself, have the power to resolve any conflicting claims in respect of the land in question, and may convene a hearing to help it to resolve the matter. The matter can also be referred back to the chief/traditional authority in order to seek their opinion on whether or not to allocate the fenced property to the applicant. If a Board is satisfied that the fences were erected with the consent of the chief/traditional authority, and that the fences are performing a useful function, it may grant that the fences be retained, subject to any conditions which

it deems appropriate. A lease can then be granted to the applicant. However, if there is evidence that the fenced boundaries are not in conformity with customary law, that they encroach on the communal grazing area or that any other person claims to have rights over the land area in question, then a hearing can be called and the claim may be refused.

There are some aspects of the Bill which could have a critical influence on the fencing issue in the future. They include: firstly, the maximum length of a lease is 10 years if the applicant is not a member of the "traditional community" in whose communal area the land is situated (*ibid*:34). This may well be the case for many of the 'enclosers'<sup>20</sup> Moreover, it would be too short a period for them to invest in any meaningful way in the land they have fenced. Secondly, it may be difficult for the Land Boards to establish that it is "reasonably necessary" to allow the applicant to retain the fences (*ibid*:29[8]). Finally, it is of concern that the enormous resources – both financial and human – that will be required if the Bill is to be enacted vigorously and in an efficient manner, may not have been fully planned for by those who will be involved in its implementation. It is important that such resources be budgeted for, in full, by the government.

## 5. THE IMPACT OF FENCING

The strong likelihood that fencing would have a negative impact on the government's efforts to develop livestock farming in the communal-tenure areas was recognised early on. For example, the need for the government to take the steps necessary "to enforce the existing law of preventing individuals from fencing land in the communal areas...", was a specific requirement laid down in the agreement drawn up between the International Fund for Agricultural Development - principal financier of the Northern Regions Livestock Development Project - and the government, in November 1994 (IFAD, 1994:18).

### 5.1 On the production and productivity of the 'privatised' farms

Researchers appear divided on the impact that fencing is having on the livestock enterprises of the 'enclosers' (although some of the ambiguity can perhaps be explained by the fact that improved management practices have been adopted only in the very recent past).

On the one hand, there are those who argue that there is little difference between the farming systems being practised inside and outside the fenced areas: "....

there is little evidence that management and offtake is generally higher than in the rest of the communal areas" (Food & Agriculture Organisation, 1992: *Annex 3*:11<sup>21</sup>). Similarly Pankhurst (1995:570) found little evidence that the different *de facto* land tenure status gave rise to any improvements in range or stock management. For this reason, she argued, marketed output of livestock from the area had not increased.

A common finding has also been that owners of fenced farms will leave their livestock to graze outside their holdings on the communal-tenure ranges during and immediately after the rainy season when the pasture is abundant. After some time, when the pasture is no longer able to support the animals, the 'enclosers' remove their stock to their own fenced holdings to graze the protected 'reserve' areas. It is probable that range management specialists could have been looking at just such a situation when they commented on the "extremely good" grass growth inside several fenced areas visited in former Ovambo region (MASDAR Zambia Ltd., 1993:15).

Hardly surprisingly, therefore, the livestock of the 'enclosers' will be in a better position to cope with drought conditions than those husbanded on the communal-tenure pastures throughout the year. Indeed, Tapscott (1994[a]) argued that this was the case during the 1992/93 drought – those who had fenced were less affected than those herding outside enclosures. He, however, provided no evidence to support his argument.

On the other hand Cox *et al.* (1998) and others argue that fencing is aimed at preserving fodder for dry season grazing, since the commencement of Meatco buying operations in the area in the early-1990's resulted in farmers seeing that the animals they sold were being downgraded due to their low body-weights. One way to overcome this was to obtain control over one of the key production inputs – feed.

Fencing also enables commercial producers to keep expensive, high-performance breeding stock from mating with other herders' cows and is a simple way of keeping the cattle which have been vaccinated against various diseases apart from other cattle, thus avoiding reinfection.

Other observers have remarked that internal fences have been erected on some of the enclosed farms to enable rotational grazing to be undertaken (Fuller *et al.*, 1995:10)<sup>22</sup>. But, just because land is enclosed into such camps does not

automatically guarantee that better pasture management is practised. Indeed, no hard evidence is provided in the literature of the improved pasture management and livestock husbandry practices which have reportedly been adopted (Fuller, *op cit.*), nor of the impact that these have had on the actual productivity of the livestock enterprises. Similarly, although Cox *et al* (1998:93) note that following fencing, some of the farms were stocked with high-performing livestock breeds - Afrikaner, Simmentaler and Brahman - in order to ensure production of good quality beef, no details are provided of the resulting increased volume and quality of marketed output. Likewise, a number of 'enclosers' are making regular use of animal health and production inputs (veterinary drugs, vitamin supplements and licks, for example), but no evidence exists on the impact that their use has had on enterprise productivity.

One feature agreed upon by all observers is the limited use made of labour on the fenced farms once they have been established - rarely more than five labourers are employed on a full-time basis. Furthermore, particularly since Independence, large numbers of Angolan nationals have become available to work as labourers. They tend to comprise the bulk of the pool from which the farmers obtain their workforce and, because of their availability, tend to be a low-cost source of labour (Fuller *et al.*, 1996:9).

## 5.2 On the unfenced areas

The land currently being fenced is ideal for extensive livestock raising. Over many years, a highly-effective pastoral system based on the seasonal use, resting and rotation of grazing areas has been developed - as far as possible adjusting the number of animals to annual rainfall and forage production (referred to as "tracking" by some writers). Herders have done this through the seasonal movement - transhumance - of animals in an opportunistic manner, which is essential in the semi-arid and variable environment of Namibia. The fencing of some areas of rangeland has disrupted these migration patterns - cutting herders and their animals off from their traditional seasonal watering points and grazing land, thus reducing the area of the range over which the livestock are able to be herded. The flexibility of the age-old pastoral strategy, which is essential given the variability of rainfall in these areas, has been reduced (Quan *et al.*, 1994: 6). This, therefore, has resulted in under-utilisation of the grazing resource.



### 5.2.1 Social and economic differentiation

As has been shown earlier, most enclosure is being undertaken by individuals who are rich and politically powerful, while the poor and powerless remaining on the communal-tenure land are becoming marginalised as they are excluded from the resources – both grazing and water – that the fences enclose (Werner *et al.*, 1990:102). Tapscott (1990:12) provides anecdotal evidence to show that there is growing differentiation between cattle owners and non-owners. Furthermore, those households with only limited numbers of animals (and research shows that these tend to be the poorer households operating on the open ranges) have tended to suffer disproportionately from the effects of drought – often losing their entire herds/flocks during these disasters (FAO, 1994:30). Richer farmers on the other hand have usually survived such droughts with a viable herd – their wealth – still intact.

Whilst, early on, it may have been the case that, “.... the villagers are accepting these enclosures” (MASDAR Zambia Ltd, 1993:15), with the same number (or, possibly, more) livestock competing for a reduced area of pasture, it was not long before tension between ‘enclosers’ and non-encloser communities increased, with reports appearing in the press of owners of livestock which strayed into the fenced areas being punished or, worse, having their cattle confiscated by the ‘encloser’ in question (*The Namibian*; 05/05/94). In their study conducted in the mid-1990s, Fuller & Turner (1995:22) refer to the “explosive nature” of the fencing issue. Even the White Paper on Land Policy (MLR&R, 1997: 4) recognises that simmering resentment between those who are excluded from sections of communal-tenure rangeland and those who feel that the land is rightfully theirs, is now common: “.... in several parts of the country there is growing tension between those who are thereby excluded from access to this land”<sup>23</sup>. Cox *et al.* (1998:107) also note that, at the present time, conflicts are becoming increasingly common and that there continue to be reports in the press of violence associated with land disputes.

### 5.2.2 Drought susceptibility

The areas which are now being fenced in the east of Oshikoto and Ohangwena regions, were, in the past, used as emergency grazing areas. For this reason, in times of drought in future years the livestock herds of the ‘non-enclosers’ will have no feed resources on which to fall back. These herders are also blocked by the fences from moving their herds to remote water points (and the associated

grazing) to which they have traditionally had access for dry-season grazing, beyond the current enclosed areas – in western Kavango region<sup>24</sup> for example – even after these areas have experienced good rains. The result of the fencing is, therefore, to limit the options for these herders who tend to be the poorest producers and to increase, significantly, the vulnerability of their herds to the mortality and morbidity arising from variations in environmental conditions – drought, in particular (Dewdney, 1996:17). As a result, their livelihoods and those of the members of their households, are being directly threatened.

### *5.2.3 Environmental considerations*

With fencing, seasonal transhumance routes have been disrupted. The ‘non-enclosers’ have thus been forced to graze their animals on ever-smaller areas and to keep them grazing longer on a given area of rangeland – in particular, in the areas adjacent to water points (compounded in recent years by the virtual absence of land-use planning inputs in planning the siting of new boreholes). Not surprisingly, therefore, inordinate pressure is being placed by the livestock on the ecology of the pasture of the non-enclosed lands, in general, and on the “sacrifice zones”<sup>25</sup> around still-accessible water points and settlements, in particular. This, in turn, means that far-reaching, permanent damage is being done to the vegetation – certainly, in these latter areas – leading inexorably to desertification (Seely *et al.*, 1994:16).

Furthermore, residual ‘corridors’ have been created between the fenced properties, along which the livestock of the ‘non-enclosers’ must pass; rarely is there access to water along their length and they tend rapidly to become heavily overgrazed narrow strips of land.

Thus, poor range management practices have been forced on the farmers making use of the unfenced communal-tenure pastures (Ashley, 1994: 9). The overall effect, then, of the enclosures has been the creation of a shortage of grazing where virtually none existed before while, at the same time, some remote pastures are now under-utilised as access to them is no longer possible.

### *5.2.4 Marketing and herd productivity*

The existence of the fenced areas means that significant deviations now need to be made from the routes traditionally taken when trekking animals to market

(Fuller *et al.*, 1996:8). This clearly acts as a deterrent to these producers to maintain – let alone increase – their rates of offtake.

The overall impact of fencing on the productivity of the ‘non-enclosed’ herds has not been studied in any objective way. However, it is possible to hypothesise that productivity is likely to have been adversely affected – the livestock have to be trekked further to reach the remaining un-enclosed boreholes and rangeland causing the output of meat, draught power and milk to be less than would have been the case under the traditional grazing systems.

#### 5.2.5 Crop production

One researcher has pointed out that the fencing of large tracts of land has serious implications for the sustainability of pearl millet output, given the complementary nature of crop and livestock production in the farming systems found throughout the Northern Communal Areas (NCAs). The ‘enclosers’ crowd out the existing small herders and make it difficult for potential new herders to enter the ‘ownership arena’. By farming without cattle and, consequently, without the manure they provide, “.... poor farmers are forced to mine the soil that accelerates degradation accompanied by declining grain yields and yield stability” (Matanyaire, 1998: 164).

#### 5.2.6 On the welfare, in general, of the local population

Research in similar agro-ecological environments elsewhere has shown that enclosure leads to a reduction in overall agricultural output from the now-privatised land but that this reduced output is shared between fewer people. For this reason, the smaller number of beneficiaries tend to be better off than the average farmer in the communal-tenure areas. Parallel with this is the reduced output from the non-enclosed areas, as described above. Taken together, it can therefore be concluded that fencing is having a negative impact on output from the rangelands and that the welfare of the ‘non-enclosers’ and their families is suffering as a result, since agriculture provides an essential component of the livelihoods of most of the poorest households in the area under review. In addition, it can be hypothesised that the enclosure movement is leading to a reduction in the number of people able to earn a living from agricultural production in the rangeland areas. The farm households which find themselves surplus to requirements in the area will therefore have to seek employment in off-farm enterprises (Cox *et al.*, 1998:90) aggravating still further the already high

rate of rural-urban migration in the country (Division of Agricultural Planning, 1997:4-5).

In summary, the enclosure of the rangelands would appear to be working directly against national development policy which emphasises, among other things, the goals of employment creation, poverty eradication and improved household food security (National Planning Commission, n.d: 39 & 169). Indeed, it is also contrary to national policy on land which, "will at all times seek to secure and promote the interests of the poor..." (MLRR, 1997:6). The combination of private land enclosures and the "privatisation" of water sources is perhaps the most salient land use issue to be considered in analysing the rural poverty situation and in drawing up measures to combat it.

Finally, as touched on earlier, the current situation is acting as an impediment to the broader land reform process, since there is no incentive for any potential investor in land to consider purchasing land in the private-tenure farming areas. In spite of the payments which need to be made to the traditional authorities in order to obtain land in the communal-tenure areas, the cost of this is likely to be only a fraction of the cost of a similar-sized area to the south of the VCF. Until something is done to alter this situation - for example, by levying a tax on farm land - entrepreneurs wishing to get involved in cattle production will continue (from the cost point-of-view alone) to seek land in the communal-tenure areas. The result will be for the negative impact on productivity, output and welfare for the majority, as outlined above, to continue unabated.

## **6. POSSIBLE WAYS FORWARD AND FUTURE PROSPECTS**

### **6.1 Inventory and monitoring**

From the evidence presented earlier, there can no longer be any doubt that the enclosure movement is highly significant - from the spatial, social, economic and political points of view (Pankhurst, 1995:568); certain individuals have now obtained exclusive rights to and influence over, significant areas of grazing land. It is, therefore, somewhat surprising that virtually no efforts have been made by the government to carry out an inventory of the extent of the fences nor to monitor the evolution of the 'privatisation' process. If a survey were to be carried out, it would then be possible for both the fences and the remaining communal-tenure rangeland areas to be registered, and the rights pertaining to them, codified (Fuller & Turner, 1995:48).

Equally urgent is the need for a comprehensive inventory of water installations in the area. The information collected and analysed during this exercise would serve both to provide an objective basis for planning any new boreholes in particular areas and to control abuse of the existing boreholes.

For these and other reasons, it would be important for both these inventories to be publicised widely. The information gained through this work would also facilitate future land-use planning in these areas – including the rationalisation, where appropriate, of the land areas occupied by the ‘enclosers’.

## **6.2 Studies**

There is an urgent need for detailed, applied studies to be carried out on a number of different aspects of the fencing issue in order to inform and shape national policy on communal land tenure, as well as on associated water development activities. For example, a programme of research is needed to assess the extent and nature of the fencing phenomenon in order to decide how affected communities might best approach the problem of reduced mobility (Dewdney, 1997:32). Other studies should be undertaken to establish to what extent overall agricultural output has been and is being affected by fencing (and, by association, whether the resulting farming system is able to support more people). Such a study should review the productivity per unit of land, capital and labour employed as well as the net financial returns realised from, livestock farming systems on fenced and non-fenced areas and, within the ‘fenced areas’ category, between newly-enclosed properties on communal-tenure land and established farms in the nearby private-tenure areas.

To complement this research, a sociological survey should be undertaken investigating the private- and communal-tenure forms of rangeland and water management and control which exist in the geographical areas under consideration here. The results of such a survey could be used to facilitate the work of the government ministries and Land Boards, which are to be responsible<sup>26</sup> for managing the land tenure reform process in communal-tenure areas and for resolving any differences which exist between communal-tenure farmers and ‘enclosers’.

Only with the data provided by this research will planners be able to assess the impact of fencing on key resources and productivity and, only with the results of

analyses of the data, will policy makers be in a position to make objective and informed decisions on the future strategy to be adopted in respect of these critical issues. Cox *et al* (1998: 5) underline the need for studies to obtain “objective, reliable and up to date information on current trends in resource ownership, access and allocation procedures”, in general in the communal-tenure areas<sup>27</sup> and in the regions affected by fencing, in particular.

### **6.3 Land tenure resolution**

It is important that the new communal-tenure land legislation clarifies the legal ambiguities and resolves the outstanding questions which have continued to surround the whole question of enclosures to the present day. The existing vacuum has created the latitude necessary for large-scale and rapid private enclosure of communal-tenure land to take place. From what has been said earlier, however, the land legislation appears not to provide a legal framework for the development of community oversight and control of resources, nor for collective land ownership and effective mechanisms of common property resource management by local communities. In the absence of such a framework the current chaos in the resource management situation will continue, with responsibility for decision making at the local level remaining unclear.

This serious shortcoming must be addressed by the members of the National Assembly who will shortly begin debating the Communal Land Bill. (Nevertheless, the Land Boards which the Bill proposes should be established, do have the potential to resolve conflicts between ‘encloser’ and ‘non-encloser’ farmers). It is important, for example, that the Land Boards ensure that detailed consultations are held at the local level, involving the affected communities as well as chiefs/traditional leaders, when an application is lodged to retain any existing fences. Such consultations, which should also be a requirement when any community/local land management issue arises, will ensure that there is maximum local input into decisions about any future fencing. Apart from anything else, this should result in more co-ordinated planning – from the ecological and equity angles – of land enclosures, as well as more efficient and effective use of the land.

Finally, on this topic, if the fenced areas are formally surveyed and registered, the new owners (lessees) will be required to make annual rental payments based on the size of their holdings<sup>28</sup>. The Bill currently states that these payments will be made to the State Revenue Fund. However, it would seem more appropriate for them to be made to the local community and spent in various ways decided

by the community itself; perhaps the most obvious would be for these funds to be used as the local contribution in respect of the various interventions detailed below (Werner, *pers.comm.*).

#### **6.4 Interventions**

Steps should immediately be taken to assist groups of herders whose animals have only limited access to water in the distant (unfenced and under-used) rangelands over which they have rights to graze, to develop small-scale water points. Such action is likely to impede the privatisation of the water points in these more-remote areas and, by implication, the surrounding rangeland areas, since communities would have been involved in constructing them and could, therefore, rightfully claim ownership of them (Cox *et al.*, 1998:95). Other suggestions for assistance to those herds/flocks (and farmers) grazing the communal-tenure rangeland that remains, include: intensified efforts by the public veterinary service to raise animal health status and to assist in making veterinary inputs more widely available; improvement of the livestock marketing system through such interventions as rural feeder road and auction pen construction; and, training herders in improved techniques of livestock husbandry. All such interventions should be focussed, at least initially, on the more remote parts of the NCAs - Oshikoto and Ohangwena regions in particular.

Given the poverty-reduction focus of such interventions, Namibia's aid partners and NGOs are likely to be keen to support them. It is therefore important that these agencies are requested to provide both technical and financial assistance in these fields as soon as possible. They could also be approached to provide the training necessary to strengthen and thus increase the effectiveness of, the local-level institutions involved with organising and managing common property resources. Finally, these agencies should be requested to assist in building the capacity of the community organisations representing the poor in these areas, to enable them better to articulate the needs of their members and to remain vigilant against their remaining rights being overridden.

#### **7. CONCLUSIONS**

The process of rangeland enclosure has been a relatively recent phenomenon, yet it already represents a significant legal, social, economic and administrative

problem. It has been shown that far from bringing relief to communal-tenure rangeland areas, the *de facto* privatisation process is creating a shortage of grazing land where none existed previously. It is, thus, intensifying problems of access to community resources particularly by the poorer sections of the population in these areas and aggravating their livelihood status. If poverty reduction is, indeed, a national development goal, this group should be receiving support through policies which widen their access to these same resources. Worryingly, the outcome of the fencing phenomenon appears to be simply the substitution of the injustices inherited at Independence by new social and economic inequities.

At the same time, however, it is important to be realistic as regards what action can now be taken. The fences have been erected and it is highly unlikely that any of them will now be taken down since any attempt to have them removed would be virtually impossible to enforce. Clear and comprehensive legislation backed up by prompt action finally to resolve the many issues which have arisen as a result of the enclosure movement, are urgently needed. Only in this way will both the 'fencers' and those excluded from the rangelands be in a position to plan for an improvement in their social and economic well-being. And, only in this way can we be assured that there will be no repetition of the enclosure movement in other so-far relatively unaffected parts of the country – western Kavango region, for example.

## NOTES:

1. *Although a 1995/96 farm management survey carried out in Kavango region throws doubt on such a low figure. It found that one-third of (imputed) agricultural income was derived from the crop sub-sector – even for households with large livestock holdings. Unfortunately, analysis of the survey data collected during the 1997/98 season in Ohangwena region has not yet been completed and time-series data are not available for any region.*
2. *However, one reviewer who has recently carried out PRA surveys in the area, argues that the proportion of farm households with no livestock is less than this. She believes that the sample used in the survey from which the 40 per cent figure was derived, included peri-urban households (El Obeid, S. pers. comm.).*
3. *"Under drought conditions such as those that occurred in 1991/92, small subsistence farmers who lack the means to fence land suffered higher stock losses than those who had access to private grazing" (FAO, 1994: 30).*



4. *Tapscott (1994[a]) indicated that the first application to fence-off an area at Oshivelo was made and approved in 1978.*
5. *Leading one commentator to stress that, "... fencing is less about grazing control than about controlling access to water" (Cox et al., 1998: 77)*
6. *The First National Development Corporation – the South African authorities' parastatal "development" agency (although Cox et al. [1998: 37] state that it was the Bantu Investment Corporation [FNDC's predecessor?] which established the Block).*
7. *Tapscott (1990: 21) stresses that fencing has taken off, "during the course of the past 18 months, in particular".*
8. *Presumably those farming in the Mangetti Block.*
9. *One extreme view is that this land-grab resembles that which took place in the United States during the Wild West days!*
10. *Presumably, the northern part of Kunene region in the north-west of the country – see Figure 1.*
11. *Fuller & Turner's 1995 study shows that fencing was widespread around Okakarara in Omaheke region in the central-east part of the country, in addition to Ohangwena and Oshikoto regions.*
12. *The total fenced area also includes the land used for cropping and the associated small grazing enclosures.*
13. *Including those employed in mining.*
14. *For example, a 1,000-hectare block of land would require approximately 12.6 kilometres of fencing. At current prices, this would cost at least N\$ 50,000, in materials alone (Dr A. Norval, pers.comm.). [The enclosures tend to be constructed with fence posts and wire – not the usual log or log and thorn-branch fences which are found around homesteads and arable plots in the communal-tenure areas (MASDAR Zambia Ltd., 1993: 15)].*
15. *This word is used advisedly; women 'enclosers' are never mentioned in the literature.*
16. *"... the 'prices' for some parcels ran into the tens of thousands of dollars" (Fuller et al.,*

17. *In reviewing an early draft of this paper, Blackie noted that these cost figures are already somewhat out of date (pers.comm.).*
18. *Cox et al. (1998) refer to the "fuzziness" of the land tenure situation.*
19. *Presumably, these are the same as the "adjudication commission plus tribunals" which were envisaged by Cabinet as being set up under the Act to, "deal with....problems" of "... illegal fencing in the communal-tenure areas" (Minister Hamutenya, quoted in The Windhoek Advertiser, 04/12/94).*
20. *However, a reviewer has stated that this 10-year clause has since been removed since it is discriminatory on ethnicity grounds (Blackie, R. pers. comm.)*
21. *This finding is echoed by Adams et al (1990: 111) for eastern Namibia, where they found evidence of severe over-stocking of fenced communal-tenure land in the Okamatapati area.*
22. *Contrasting strongly with the often-expressed view that there is little evidence of internal camping (paddocking), nor of water being made widely available, on the 'privatised' farms.*
23. *The final part of the sentence appears to have been omitted!*
24. *Although this avenue, increasingly used in recent years by livestock herders from Oshikoto and Ohangwena regions seeking new areas for their animals to replace the lost pastures, may not be available for much longer (Cox et al, 1998: 78). Kwangali authorities in Kavango have recently expressed their concern about this increasingly-common practice and the likelihood of it leading to friction in the near future unless restrictions are placed on it (Fuller et al, 1996:8).*
25. *Behnke, R. (pers. comm.)*
26. *According to the Communal Land Bill.*
27. *They also stress the need for this research to be carried out by Namibian researchers (ibid: 96).*
28. *The precedent has already been set in the Mangetti Block, where leases on 97 fenced properties of 1,200 ha each, were granted some time ago and annual rental payments have been made since that date.*

## BIBLIOGRAPHY

ADAMS, F. & WERNER, W. [WITH VALE, P]. (1990) *The land issue: an enquiry*. Research Report No. 1. Windhoek : Namibia Institute for Social and Economic Research, University of Namibia.

ASHLEY, C. (1994) *Population growth and renewable natural resource management: the challenge of sustaining people and the environment*. Research Discussion Paper N°. 1. Windhoek: Directorate of Environmental Affairs, Ministry of Environment & Tourism.

BLACKIE, R. (1998) *Communities and natural resources: trends in equitable and efficient use*. Research Discussion Paper, N°. 29. Windhoek: Directorate of Environmental Affairs, Ministry of Environment & Tourism. (forthcoming)

BLACKIE, R & TARR, P. (1998) *Government policies on sustainable development in Namibia*. Research Discussion Paper N°. 27. Windhoek: Directorate of Environmental Affairs, Ministry of Environment & Tourism (forthcoming).

COX, J. KERVEN, C. WERNER, W. & BEHNKE, R. (1998) *The privatisation of rangeland resources in Namibia: enclosure in eastern Oshikoto*. London: Overseas Development Institute.

DEWDNEY, R. (1996) *Policy factors and desertification – analysis and proposals*. Prepared for Namibian Programme to Combat Desertification. Windhoek: NAPCOD.

DIVISION OF AGRICULTURAL PLANNING. (1997) *Food security or food self-sufficiency for Namibia? The background and a review of the economic policy implications*. Windhoek : Directorate of Planning, Department of Agriculture and Rural Development.

FAO. (1992) *Namibia: northern regions livestock development project : Preparation mission*. In two volumes. Rome: Investment Centre, Food 7 Agriculture Organisation (Report number: 162/92IFAD-NAM 3)

FAO. (1994) *Report of the inter-agency WCARRD policy review mission to Namibia: 29/11-10/12/93*. Mission report N°. 26. Rome: Food & Agriculture Organisation.

FULLER, B., AND NGHIBKEMBUA, S. [WITH FORBES IRVING, T.] (1996) *The enclosure of range lands in the eastern Oshikoto region of Namibia*. SSD Research Report No. 24. Windhoek: Social Sciences Division, University of Namibia.

FULLER, B., AND TURNER, S. (1995) *Resource access and range land management in three communal areas of Namibia*. Windhoek: Social Sciences Division, University of Namibia; Ministry of Lands, Resettlement and Rehabilitation; and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ).

GREEN, R.H. (1990) *The land question: restitution, reconciliation and livelihood – some political, economic and agro-economic issues*. Windhoek: AGRECONA seminar proceedings.

GRIMM, J. (1994) *Farming systems analysis: consultancy report*. Windhoek: Sustainable Animal and Range Development Project.

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT. (1994) *Northern Regions Livestock Development Project : Loan agreement between the Republic of Namibia and the International Fund for Agricultural Development*. Loan number: 362-NA. Rome.

KERVEN, C. (1997) *The knife cuts with both blades: redefining property rights in eastern Oshikoto region, Namibia*. London: Overseas Development Institute. (Final draft).

MASDAR ZAMBIA LTD. (1993) *Northern Regions Development Program : interim report volume 1; main report*. Windhoek: Burmeister van Niekerk & Partners.

MATANYAIRE, C. (1998). Sustainability of pearl millet (*Pennisetum glaucum*) productivity in northern Namibia : current situation and challenges. *South African Journal of Science*, 94:157-166.

MINISTRY OF LANDS, RESETTLEMENT & REHABILITATION [MLR&R]. (1997). *National land policy*. Windhoek. September.

THE NAMIBIAN. (1994) *Illegal fences spring up in Kaokoland*. Article by Motinga, J.04/04. Windhoek.

NATIONAL PLANNING COMMISSION. (n.d.) *First National Development Plan (NDPI): Volume I, 1995/96-1999/2000*. Windhoek: Government of the Republic of Namibia.

PANKHURST, D. (1995) Towards reconciliation of the land issue in Namibia: identifying the possible, assessing the probable. *Development and Change*, 26:551-585.

QUAN, J., BARTON, D. & CONROY, C. (1994) A preliminary assessment of the economic impact of desertification in Namibia. DEA Research Discussion Paper No. 3. Windhoek: Directorate of Environmental Affairs, Ministry of Environment and Tourism; and Chatham: Natural Resources Institute.

SEELY, M., J. KAMBATUKU AND E. SHANYENGANA. (1994). The Namibian environment and desertification. In: *Proceedings of Namibia's National Workshop to Combat Desertification*. Windhoek: DRFN.

SILFVERBERG, K. (1995) *Environmental study*. Oshakati: Water Supply and Sanitation Project in Ohangwena Region (MAWRD/FINNIDA; DPR 4/95).

TAPSCOTT, C. (1990) *The social economy of livestock production in the Ovambo region*. NISER Discussion Paper No. 4. Windhoek: University of Namibia.

TAPSCOTT, C. (1994[a]) *Seminar on the fencing of the communal area rangelands*. (Notes taken at the seminar: 18/05/94). Windhoek: SSD, UNAM.

TAPSCOTT, C. (1994[b]). The socio-economic situation of farming in Namibia, and sustainable development. In: *Proceedings of Namibia's National Workshop to Combat Desertification*. Windhoek: DRFN.

WERNER, W. (1997). *Land reform in Namibia: the first seven years*. Switzerland: Basler Afrika Bibliographien. (BAB working paper N°. 5)