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# TOWARDS A PASTORALIST SUPPORT STRATEGY BACKGROUND DOCUMENT

**Frauke de Weijer**  
**RAMP**

# **Towards a Pastoralist Support Strategy**

## **Background Document**

**For distribution among interested partners**



Submitted by:  
**Frauke de Weijer**  
**Rebuilding Agricultural Markets Program (RAMP)**  
**Chemonics International Inc.**

Submitted to:  
**U.S. Agency for International Development (USAID)**  
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## EXECUTIVE SUMMARY

- This report aims to work towards recommendations towards a Pastoralist Support Strategy, to support the pastoralists of Afghanistan to rebuild or maintain a sustainable livelihood.
- The Pastoralist Support Strategy under development does not focus on an ethnic group, it focuses on people with a certain livelihood; e.g. pastoralism. Pastoralism is a social and economic system based on the raising and herding of livestock, in which they migrate to benefit to the maximum of seasonal pasture for the livestock.
- Three categories can be differentiated:
  1. migratory, livestock dependent people (e.g. pastoralists)
  2. recently settled, formerly migratory livestock dependent (e.g. former pastoralists)
  3. settled people, that still hold on to the cultural identity and refer to themselves as kuchi.The Pastoralist Support Strategy targets the first two categories.
- Pastoralists have an important contribution to make to the national economy, as they did in the past (35% of all exports were from livestock products). They also fill an ecological niche, through using the marginal lands which can not be made to sustainable economic use in another way.
- Recent estimates indicate that there around 2.5 million kuchi, of which 1.5 million are still migratory (pastoralists) and 1 million are currently not-migratory (former pastoralists).
- There are large differences in migration patterns and livelihood strategies between the pastoralists of the different regions.
- Income derived from livestock production is often supplemented by other income sources, like harvesting, casual labour but also through the purchase of agricultural land. In recent years, an increased diversification of household income and a move towards a more semi-migratory lifestyle has taken place.
- With increasing economic stress on the household, men find themselves forced to actively search for casual labour in the main markets. They constitute a group of migrant labourers, leaving the families behind in the 'kuchi areas'. Skill levels, other than livestock keeping, are low and unskilled labour is all they can obtain.
- Few pastoralists have been included in vocational training programs in the IDP camps. None of these programs have moved onward from here, and have progressed towards establishing a new livelihood based on the new skills. No job referral, business skills training, monitoring of performance has taken place, which makes it difficult to assess the impact of these training programs at this point.
- Changes in summer pastures and in winter pastures have taken place over the last centuries, and currently the access to the summer pastures in the Central Highlands is compromised. Customary mechanisms to determine pasture user's rights exist, and are functioning to a certain extent. However, particularly in areas where these grazing rights have been relatively recently established, and where these were partly politically manipulated, there is a high level of conflict over these user's rights.
- FAO conducted a livestock census in 2003, but unfortunately very few kuchi herds were enumerated. With caution it can be said that estimates on livestock numbers in the north are reaching their pre-war levels, whereas the south and the east is lagging far behind. It has been estimated that kuchi own around 30 to 50% of the national herd.

- Rangelands cover around 45% of the total land area in Afghanistan, according to the FAO land cover map. However, large areas which are considered 'barren land' or 'waste land' are also used for grazing, particularly in the winter season. The total grazeable area therefore is much larger, estimated at 70-85% of the total land area.
- No comprehensive assessment of the current status of the range lands and the (reversible or irreversible?) effects of the drought on the range land has been carried out. Even though a number of documents claim that there is extensive over-grazing in Afghanistan, there is no evidence to corroborate this. Due to socio-political factors access to certain pasture areas has been reduced, which could theoretically even have led to under-grazing in these areas.
- Increasingly, pastures have come under rain fed agricultural production, with devastating effects, most notably in Dasht-e-Laily and Shiwa.
- Destitute pastoralists, that have lost all their livestock, tend to settle permanently in their traditional winter areas. There they are often at risk of being evicted from the land by local residents or commanders. This land insecurity places additional stress on already destitute people.
- Within the field of Forestry and Rangeland, the initial focus of interventions is in forestry rehabilitation and management. Rangeland issues are viewed as being important to address, but practically there is little progress, with the exception of the Registan.
- All on-going policy development and research in the field of range management that has been carried out points in the direction of 'Community Based Natural Resource Management' as the most appropriate way forward to addressing range land management and conflict resolution. A pasture based local negotiation process on mechanisms and conditions of use of the pasture land is promoted, through a learning-by-doing approach. A legal framework will be required to arrive at the desired level of legitimacy of the Range Management Plans thus obtained.
- Animal health problems are prevalent in the pastoralists' herds, but it is unclear how this compares with the sedentary herds. Anecdotal information suggests that the Kuchi do not make optimal use of the existing veterinary services, and this could be improved upon. According to the staff of the Veterinary Field Units, the pastoralists are more willing to pay for veterinary services (including vaccination) than the sedentary farmers.
- Veterinary Field Units are currently being supported by various organizations, including DCA, PRB, AVA, MC, and Madera, but the overall consensus is that these VFUs shall move towards full privatization. The extent to which the pastoralists make optimum use of these clinics is currently being researched. A Kuchi study conducted in 1999 by FAO reported that 72% of the interviewed households do not visit the VFUs. The VFU staff themselves paint a different picture, with a much higher level of contact.
- Some organizations have trained Basic Veterinary Workers in the past, but due to diminishing support and unclear ties to the Veterinary Field Unit, most of these are no longer working.
- The role of the government will move away from service delivery and towards the more public roles of disease control, and monitoring. Prevention and control of transmittable diseases is supported through a large regional programme by FAO, which aims at establishing regional mechanisms for trans-boundary animal disease control. The pastoralists are considered an important factor in the spread of disease due to their migratory patterns. Herds from different regions meet in large grazing areas in the summer and at water sources and may transfer diseases back to their winter areas, which may lead to a wider spread of disease.

Vaccination, de-worming and ecto-parasite control of the pastoralists' herds is therefore of great importance, even more so than for the sedentary livestock owners.

- Winter nutrition is the main bottle neck for livestock production. To some degree supplementary feeding is practiced during the winter months, but not by all. There may be enormous scope for increased livestock production and improved livestock health through improving the quantity and quality of feed intake during the winter months.
- Livestock production and animal husbandry are not receiving adequate attention, in particular for the more extensive livestock production systems. The focus of on-going programs currently is predominantly on rural poultry production and dairy processing. Extension on animal nutrition, hygiene and breeding, and increasing livestock fodder production for small ruminants could improve the robustness of the livestock sector considerably.
- Very little information is available on the opportunities and constraints of the national, regional and international market for livestock and livestock products. Feasibility studies are currently not being planned, other than a recently conducted livestock marketing study (yet unpublished).
- Recommendations towards supporting the pastoralists fall into two separate categories; 1) to strengthen the pastoralist way of life, and 2) to support the establishment of a substitute livelihood; alternative income generation.

## **POTENTIAL MECHANISMS TO STRENGTHEN THE PASTORALIST WAY OF LIFE**

### **A. INSTITUTIONAL STRENGTHENING**

1. The capacity of the Ministry of Frontiers and Tribal Affairs for mainstreaming pastoralists' interests needs to be strengthened
2. Development of the capacity of the national and provincial Kuchi shuras

### **B. RANGELAND**

1. Technical assessment of the status of the rangeland and potential for rehabilitation
2. Negotiation of access to the resources (rangeland and water).
3. Pasture Monitoring System, linked to a 'Drought Management Strategy'.
4. Advocacy for a legislative framework at national, provincial and district level for Community based Natural Resource Management.

### **C. ANIMAL HEALTH**

1. Improve linkages with the existing veterinary service delivery practice and extension through training of Paravets and BVWs and through the establishment of mobile or fixed Veterinary Field Units.
2. Improve the inclusion of pastoralists in Disease Control and Prevention

### **D. ANIMAL PRODUCTION AND HUSBANDRY**

1. Credit facilities / storage facilities for livestock fodder
2. Extend extension services to pastoralists
3. Increase livestock feed availability
4. Promote the fattening of male lambs

### **E. MACRO-ECONOMIC REGENERATION**

1. Feasibility Studies and Market Assessments for livestock and (adding value to) livestock products.
2. Encourage private sector investment in the livestock and livestock products industry investors.

**POTENTIAL MECHANISMS TO SUPPORT THE ESTABLISHMENT OF A SUBSTITUTE LIVELIHOOD**

- A. Advocate for increased land security for (former) pastoralists in the Land Commission**
- B. Skills Development Centres for (former) pastoralists**
- C. Lamb fattening as an entrepreneurial activity**
- D. Livestock product processing**
- E. Promote small-scale poultry and rabbit production**
- F. Promote the development of large-scale irrigation schemes to increase agricultural land**

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## **ACRONYMS**

VFU	Veterinary Field Unit
DVM	Doctor of Veterinary Medicine
MFTA	Ministry of Frontiers and Tribal Affairs
MAAHF	Ministry of Agriculture and Animal Husbandry and Food
IDP	Internally Displaced People
MoLSA	Ministry of Labour and Social Affairs
CSO	Central Statistics Office
NMAK	National Multi-sectoral Assessment on Kuchi
MISFA	Microfinance Investment Support Facility for Afghanistan
NRVA	National Risk and Vulnerability Assessment
BVWs	Basic Veterinary Worker
Kuchi	Nomadic pastoralist

## 1. INTRODUCTION

***This report aims to work towards recommendations towards a Pastoralist Support Strategy, to support the pastoralists of Afghanistan to rebuild or maintain a sustainable livelihood.***

'Kuchi' is a term that is generally used to describe the transhumant or nomadic pastoralists of Afghanistan. In fact it is a term that may cause confusion, since it refers to both a lifestyle (migratory), a production mode (livestock dependent), and a cultural identity.

The livestock production mode traditionally employed by the kuchi is called 'pastoralism'. Pastoralism is a social and economic system based on the raising and herding of livestock, in which they migrate to benefit to the maximum of seasonal pasture for the livestock. In Afghanistan, the climate serves as an additional motivating factor for migration, since tents do not provide adequate protection for neither heat nor cold.

The Pastoralist Support Strategy under development does not focus on an ethnic group, it focuses on people with a certain livelihood; e.g. pastoralism.

Pastoralism is a social and economic system based on the raising and herding of livestock, in which they migrate to benefit to the maximum of seasonal pasture for the livestock.

Historical, geo-political, environmental and ethnic factors have led to many changes in the context to which the kuchi have had to adapt. This has led to a myriad of livelihood styles employed by the 'kuchi' nowadays, and the single term 'kuchi' can now refer to people with very different livelihood patterns:

Many 'kuchi' may have settled decades ago, own land or large transportation companies, and still refer to themselves as 'kuchi'. Also those that have lost their livestock during the years of war or the recent drought and have been forced to settle (temporarily?) still refer to themselves as kuchi, and have as yet not been able to establish an alternative livelihood.

These 'settled kuchi' may still perceive themselves as kuchi and may be represented by the kuchi leaders. In socio-political terms they still form part of the kuchi community. However, they are not migratory, and not livestock dependent.

Particularly in the north, the migration patterns of the (former) kuchi have been disrupted quite severely which has led to major changes in livelihood patterns. Land ownership among 'kuchi' is relatively high in the north, which has led to a high number of settled 'kuchi' in those areas. This combined with the fact that many 'non-kuchi' residents of the area also practice a transhumant production mode where they migrate to more elevated grazing areas (*ayloq*) during the spring or summer season, leads to a serious blurring of boundaries between 'kuchi' and non-kuchi'.

Supporting the pastoralists does not necessarily mean returning them all to the nomadic pastoralist lifestyle.

It means supporting them to develop or maintain a sustainable livelihood in the best way possible, keeping in mind environmental, economic, humanitarian, and socio-cultural factors.

In the west, the term 'kuchi' needs to be avoided, since the term 'malدار' is preferred for the livestock dependent migratory communities; which include both Pashtun and other tribes (Aimaq, Arab, etc)

The term 'kuchi' therefore is better avoided, since it does not serve as a practically useful definition. It will have become clear from the above that several sub-categories exist under the broader term 'kuchi', and that in fact the boundaries are blurred. Three categories can be differentiated:

1. migratory, livestock dependent
2. recently settled, formerly migratory, livestock dependent
3. settled people, that still hold on to the cultural identity and refer to themselves as kuchi.

The first category consists of different ethnic groups, predominantly Pashtun, Beluchi, Arab, but also Aimaq, and even some Tajik and Uzbek in the north. In this report, this category will be referred to as '**pastoralists**'.

The second category is similar to the one above, but these people have recently settled due to the effects of war and drought. They will often live in the same areas as the first category, and belong to the same communities. Therefore they are difficult to separate from the first category, especially considering that many 'pastoralists' that have lost all their livestock still continue their migration in order to benefit from community support mechanisms or seasonal labour. When this group is meant specifically they will be referred to as '**former pastoralists**'.

The third category consists of those people that have become settled over the last decades, but still consider themselves to be 'kuchi' and still only feel represented politically by kuchi leaders. These people are predominantly Pashtun, and in this report will be referred to as **settled kuchi**.

This report aims at describing the background of the kuchi in general. The term kuchi will be used when describing the history and background of 'what kuchi are'. However, with regard to the development of a support strategy for these people, only the first two categories are targeted, e.g. the pastoralists and the former pastoralists.

The Pastoralist Support Strategy under development will focus on the 'pastoralists' and the former 'pastoralists', which have been forced to settle.

This paper looks at ways to 'support nomadic life' as well as 'building of alternative livelihoods' for the pastoralists. Acknowledging that the nomadic way of life is currently not the preferred way of life for all the 'pastoralists', opportunities for establishing 'alternative livelihoods' will need to be reviewed. Since the term 'alternative livelihood' is strongly associated with the move away from poppy production, the term 'economic integration' will be used to describe this alternative road to livelihood rebuilding.

This report will summarize the current information base on the pastoralists, on the rangelands and on the status of the herd / flocks (in terms of animal health and production). Current policies and programs, as well as the direction in which these seem to be developing will be reviewed, to provide a picture of the institutional context in which this needs to be viewed.

A first attempt to analyse the future of pastoralism will be made, recognizing however that the current information base will not allow hard conclusions to be drawn at this point.

It will conclude with recommendations on the way forward; which can be differentiated in 4 categories: 1) mechanisms for improved advocacy for pastoralist interests in policy development, 2) improved linkages with existing or developing programs and policies, 3) specific research topics, and 4) potential pilot projects as components of a Pastoralist Support Strategy, and 5) promoting private sector investment.

This report represents the first phase in a process which aims at developing a Pastoralist Support Strategy through a consultative process, supported by government (notably the Ministry of Frontiers and Tribal Affairs [MFTA] and Ministry of Agriculture and Animal Husbandry and Food [MAAHF]), donors, national and international experts, and most importantly the pastoralists themselves.

A series of workshops are planned as a consultative process with knowledgeable individuals from the different sectors, and also international expertise will be brought in, to share their experiences

from abroad, and make optimal use of 'best practices' discovered elsewhere. The kuchi shura (a national council of kuchi representatives, established under the Ministry of Frontiers and Tribal Affairs) will play a key role in ensuring that national and international expert advice actually corresponds with the reality on ground.

But first it is important to define why a Pastoralist Support Strategy is required in the first place. Why would these people require extra support?

## 2. JUSTIFICATION FOR A PASTORALIST SUPPORT STRATEGY

As explained in the introduction, the 'kuchi' are quite difficult to define, as the term tends to refer to a lifestyle (nomadic), a production mode (livestock) and a cultural identity (in particular for the Pashtun kuchi). Therefore the term 'kuchi' will be avoided, and the strategy will target only the pastoralists and the former pastoralists; the destitute.

The great majority of these pastoralists are indeed Pashtun, but there are several other groups with a similar livelihood and similar problems, most notably the Beluchi. In fact, taking a look at the 'former pastoralists' currently living in the IDP camps in the south, the majority of these are Beluchi pastoralists from the Registan.

**This strategy therefore does not focus on an ethnic group, it focuses on people with a certain livelihood;** e.g. the nomadic (or transhumant), livestock dependent production system. Those who have seen their livelihood eroded due to the effects of drought and war over the last years, but have not successfully managed to shift livelihoods completely, will still be considered under this strategy.

In the 3 ½ years since the fall of the Taliban, and the flow of foreign aid to Afghanistan, **very little of this support has targeted these people**, who have also been badly affected by war and drought. Livestock numbers plummeted in the drought years, and diseases have taken their toll, and as much as livestock numbers have a tendency to regenerate, for individual families to establish a new herd is much more difficult.

**Several reasons for this lack of support** to an obviously quite affected group of population can be pointed out; 1) until very recently there was a total lack of reliable data on this part of the population; 'how many are where when?', 2) the problem of access to pastures which underlies a lot of the problems currently faced by the pastoralists and is one of the most complicated issues to deal with in a post-conflict society such as Afghanistan, 3) the migratory lifestyle which impedes inclusion in aid projects which are always designed for sedentary people, 4) the lack of fixed assets owned by the pastoralists, which could be rehabilitated, 5) a lack of understanding of the complexities of the pastoralist way of life, and a fear for interfering in a system which is so strongly reliant on an acquired equilibrium between humans and their environment (most notably the fear of inducing overgrazing through interventions), 5) the start-up problems faced by almost all large national programs which have the mandate to mainstream the 'vulnerable' populations but lack the additional capacity required to do so, and 6) the strained relations between Pashtun and non-Pashtun populations, and 7) the lack of political will in the afghan government.

### Why would the pastoralists require support?

- very little reconstruction money has targeted these people,
- in pre-war times over 30% of national export came from livestock products,
- the pastoralists are the main producers of small ruminants,
- the market demand for meat is likely to rise
- the pastoralists are the most effective users of the marginal lands
- the livelihoods of many pastoralists have been heavily eroded and they have the right of human dignity and a sustainable livelihood.

The pastoralists, and in particular the poorer pastoralists, have suffered equally from the effects of war, drought and ethnic conflict as the sedentary people of Afghanistan, but have received almost no support so far. But they can not be 'erased' as if they never existed.

In addition to these **humanitarian** factors, there are also **economic, environmental, socio-cultural** factors and even **political factors** which justify support to the pastoralists.

In pre-war years, livestock and livestock products (handicrafts; rugs, carpets) contributed 16% and 8-10% to the Gross Domestic Product [GDP] of Afghanistan, according to a World Bank study. Livestock products were about 14% of total exports with carpets and rugs accounting for a further 9%, with a total value of \$US 65 million per year. This is exclusive of unrecorded live sheep exports to Iran, which were estimated at an additional \$US 33 million per year. This would lead to **34.6% of total exports stemming from livestock and livestock products**.

Mutton is a very large contributor to total livestock products, and using FAO estimates of 1995-1996<sup>1</sup> it can be calculated that of the total meat production in Afghanistan 71% was mutton.

With increasing globalization, **the market demand for meat is likely to rise**; FAO<sup>2</sup> reports that 'the volume of livestock and livestock products entering international trade has risen from 4% in the early 1980s to about 13% of total consumption [now]. Globalization opens markets to international trade: meat production in the developing countries, both for internal consumption and for export has grown by 230% and milk production by 200% since the early 1980s. If Afghanistan is able to tap into this new market, the potential for export is great.

**Pastoralists are the main keepers of sheep (and goats) in Afghanistan.** It was reported that in pre-war times approximately 75-80% of the sheep population was managed in transhumant (nomadic) flocks. According to a more recent estimate of 1995 the pastoralists were thought to own 50% of the national herd. When comparing livestock data from the National Multi-sectoral Assessment on Kuchi [NMAK]<sup>3</sup> with the FAO livestock census data, 43% of the sheep seem to be kept by pastoralists.

**The pastoralists are the most effective users of the marginal range land areas**, which can not be used as intensively by the resident farmers due to the bottleneck of winter feed. The number of animals kept by resident farmers can not increase up to the levels that the pastoralists can herd, purely because these animals cannot be fed during the winter period of feed shortage. The migratory pastoralists however, make use of the seasonal pastures in the highland and the lowland areas, and can therefore produce more efficiently. In other words, they occupy a niche which can not be put to productive use as efficiently in any other way<sup>4</sup>.

Afghanistan is under pressure to produce evermore food crops and intensify its agricultural potential; both to uplift existent chronic food insecurity and to feed increasing numbers, be it through natural population growth or the influx of returnees.

With increasing intensification of production in Afghanistan, **it becomes essential to put the marginal lands which are not suitable for agronomic<sup>5</sup> production to optimal use**, which can only be done through livestock production. At the same time however, and this point will be elaborated upon later, more high-potential areas should also not be used as pasture areas if higher yields can be reached through agronomic production.

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<sup>1</sup> Quoted from Khan, World Bank.

<sup>2</sup> FAO, globalization and livestock.

<sup>3</sup> these figures have to be treated with caution however, since they are reported figures and no physical headcount.

<sup>4</sup> For more information on how this niche relates to its environment, view chapter 5.

<sup>5</sup> Agronomic production refers to agricultural production with livestock production excluded.

In the correct balance between vegetation resource and human use, equilibrium is reached on the pastures which actually protect the pastures. Louis Dupree describes a few examples in which the pastures of nomads that were forced to settle turned into deserts. Of course, that is not to say that this equilibrium is currently existent in Afghanistan, only that it once existed.

And to leave the most important point for last, **the human factor; also these people have the right to a sustainable livelihood**. It is a matter of human dignity, that people should have the right to choose their lifestyle. The pastoralists constitute an estimated 10 % of the population, and this does not include the IDPs in the camps. Solutions need to be sought for this substantial portion of the Afghan population, they can not be ignored as if they just don't exist. Even in the constitution, the nomadic populations of Afghanistan are mentioned as a specific group whose livelihood needs to be improved (Art. 14)

### 3. BACKGROUND INFORMATION ON THE AFGHAN PASTORALISTS

#### A. Population estimates

The most comprehensive census in Afghanistan was carried out in 1972-1974 which reported just over 10 million settled and just over 1 million nomadic populations.

A census carried out by UN/CSO in 1979 reports just over 13 million settled and an estimated 800,000 nomads. This census is not very highly credited, since only 56% of the population was enumerated and the remainder extrapolated<sup>6</sup>.

	1974	1979
Settled	10,882,753	13,051,358
Nomad	1,074,000	800,000 (estimate)
% of nomads	9.9%	6,1%
Total	11,956,753	13,851,358

Population censuses have traditionally struggled with the nomadic communities, even in purely logistical terms. In addition, the definition of 'who is a nomad' is fraught with problems, and which definition is used (both in theory, and practically by the enumerators) will easily double or half the numbers. Maybe partly due to these problems, the resulting figures may have been manipulated in the past for political purposes.

To use these census figures from the past as an projection for current figures is also a complicated affair; it is very difficult to extrapolate population figures over time for a country where so much flow in and out of the country (eg refugees) has taken place. For nomads this problem is even more haunting, due to the tendency of (some) nomads to sedentarize and renomadize<sup>7</sup>.

Recently new data have become available through the National Multi sectoral Assessment on Kuchi, a nationwide exercise carried out by MRRD, in collaboration with MFTA and CSO.

The objective of the National Multi-sectoral Assessment on Kuchi was to obtain baseline demographic information on pastoralist communities, and their current access to service related infrastructure, in order to provide the government with the necessary data to support programme design.

It was not a census, and the figures have to be treated with caution. As much as verification of population figures was built into the methodology, it is still based upon reported figures and not a physical headcount of individuals. However, it may be the best source of information available at present.

The NMAK data show the kuchi<sup>8</sup> to number 2.426.304 individuals or 239.859 households in total.

Depending on their actual migration patterns, they can be divided over three categories;

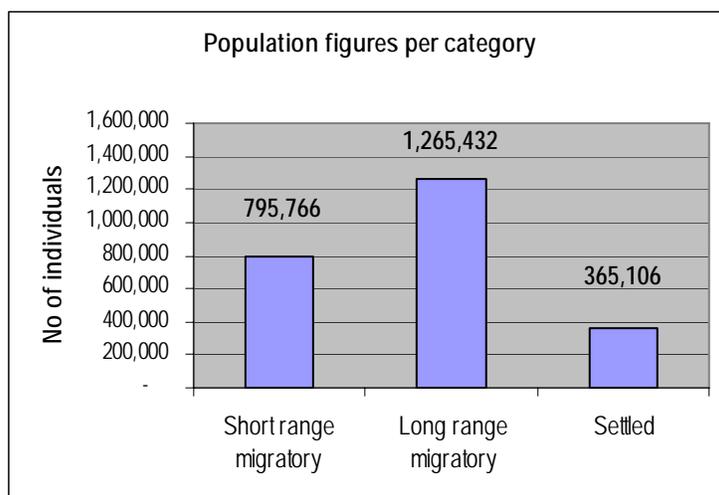
- 1) long range migratory,
- 2) short range migratory,
- 3) recently settled.

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<sup>6</sup> www.allrefer.com

<sup>7</sup> Glatzer, 1981.

<sup>8</sup> 'kuchi' are here defined as those that are still migratory or have recently settled due to the effects of the last drought; this corresponds with our definition of pastoralists and former pastoralists.



**Figure 1 population figures**

The long-range migratory pastoralists are predominant (52%), followed by the short-range migratory pastoralists (33%) and lastly the 'former pastoralists (15%) (the 'recently settled Kuchi').

The total number of kuchi in 'settled kuchi' communities is 365.106 individuals. These are non-migratory, living in non-migratory communities.

Even in migratory communities, not all households necessarily migrate to the summer areas. In partially migratory communities, some households remain behind and this proportion can vary between 1% and 99%. The total number of non-migrating 'former pastoralists' is 967.210 (this number includes settled kuchi in entirely settled communities and the non-migratory 'kuchi' in partially migratory communities).

The table below shows the overview of population figures:

Total no. of HHs	Total population	No. of HHs not migrating	Population not migrating	Active migrating population	% actively migrating
<b>239.859</b>	<b>2.426.304</b>	<b>93.859</b>	<b>967.210</b>	<b>1.459.103</b>	<b>60.1%</b>

**Table 1 Overview of Kuchi population figures (source NMAK)**

These numbers exclude the kuchi that migrate over the borders, which are estimated to present between 5% and 10% of the kuchi population. More details on distribution over the population of the different categories of kuchi may be found in the NMAK report.

Using the most recent CSO population estimates, the overall population of Afghanistan (excluding the nomads) is 20,6 million people. When using the total number of kuchi covered by the NMAK, this would lead to **10.5%** of kuchi. When only considering those that are currently still actively migrating, this would correspond with **6.3%** of kuchi in the country.

#### How many kuchi are there?

No accurate data are available, as all figures depend on extrapolation or reported data.

Estimates are:

- around 2.5 million kuchi,
- of which around 1 million is currently not migratory,
- and 1.5 million is migratory.

## B. Migration patterns

The pattern of migration of the Afghan pastoralists is largely predictable, determined by the availability of pasture, and the climate. With a few exceptions, the migration goes from the periphery of the country towards the central areas in the spring season. Summer grazing is predominantly in the foothills of the central highlands and other mountainous regions. However, particularly due to effects of the prolonged war, these migration patterns have to some extent been eroded. Particularly in the north, large numbers of Pastoralists who used to be long-range migratory, and move towards the central highlands now stay within the province and have effectively become short-range migratory, have become settled.

Generally, the migration patterns follow the seasons; in spring (Hut or Hamal; February/March) the Pastoralists migrate towards their summer areas. The migration period differs, depending on the distance travelled, the climate of that particular year, the amount of pasture on the way and the actual weather. Generally the duration of migration is between 1 and 10 weeks and the return migration is of a similar duration. The return migration to the winter area usually commences around Mizan or Aqrab (September/October).

A different group is those of the Registan. These have not been captured by the NMAK survey, but substantial information on these groups is available from Cordaid and VARA<sup>9</sup>. In Registan, most pastoralists used to graze their animals in the Registan during winter / spring months of the year, and then migrate to near the Arghandab or Helmand river areas for the rest of the year. This was practiced by all the Pashtun pastoralists and by some of the Beluchi pastoralists. The other (Beluchi) pastoralists remained in Registan for the whole year. Due to the severity of the drought, the nawars (water pans) dried up and the pasture became inadequate. An evacuation was organized by the Taliban government, and eventually all of the pastoralists were forced to leave the Registan desert and are staying up to now in 4 IDP camps in Panjwayi and Maiwand districts of Kandahar.

The migration patterns are highly predictable. Generally, the winter areas are in the periphery of the country in the low lands, while in the spring they move to the upland pastures which are located in the central mountainous parts of the country.

There are exceptions to this rule, in particular among short-range migratory groups which travel shorter distances.

## C. Regional distribution of pastoralists

The **northern provinces of Afghanistan hold a high degree of short-range migratory pastoralists**, they move relatively short distances seasonally to the pasture areas, and in fact many of the settled people use a similar system. The **level of land ownership is also significantly higher** in the north than in the other regions. This leads to a blurring of boundaries between those who are 'kuchi' and those who would not consider themselves 'kuchi'. This is even compounded by the active and passive resettlement of Pashtun from the south and east to the north, from the period of Abdul Rahman Khan onward. Many of these 'kuchi' own agricultural land, and could only be considered 'kuchi' by their cultural identity.

Due to historical factors, and a long-lasting tendency of the Pashtun dominated governments to support the Pashtun in the north gain access or ownership of pastures, relations between Pashtun and non-Pashtun are under pressure. Wily and Patterson describe a number of case studies from the north (Faryab and Badakhshan) which paint a grim picture of how relations have deteriorated, and how access and ownership or appropriation of pasture lands often is the foundation of the conflict. As a result, many Pashtun from the north, be it pastoralists or settled, have fled to the IDP camps in the south or to Pakistan since the fall of the Taliban.

<sup>9</sup> VARA/Cordaid, 2003, and Jost, 2004.

The war and the associated factionalism has led to a severe disruption of the migration patterns in the north; seasonal grazing areas became no longer accessible, the migration routes were blocked off or exorbitant taxes were levied by the commanders in place, and looting of livestock was widespread. Many pastoralists have been forced to flee or settle in other provinces like Ghor<sup>10</sup>, and in particular those without land saw their livelihood severely eroded.

After the fall of the Taliban, the resentment of the northern people against the Pashtun led to another round of Pashtun refugees from the north to the south or Pakistan.

Currently in the north there are 'kuchi' that use the seasonal upland pastures; these may be Pashtun, but could equally well be Tajik, Uzbek, or Arab. In addition to those short-range migratory pastoralists there are also long-range migratory pastoralists that use the Central Highlands as their summer grazing areas. **Another important group in the north is those that migrate from Kunduz and Takhar to Badakhshan. A major grazing area in Badakhshan is Shiwa dasht** where a high number of pastoralists concentrate in the winter. Over the years the number of pastoralists using the Shiwa area has varied, depending on the prevalent power relations. Nowadays, it is being used both by short-range pastoralists of all ethnic groups and by long-range migratory pastoralists (mostly Arab and Pashtun, from Kunduz and Takhar)<sup>11</sup>.

There are large regional differences between the pastoralists' livelihoods, due to historical, socio-political and ecological differences.

In spite of all these problems in the north, it must also be said that the drought affected the northern areas less than the southern areas. Livestock numbers have increased over the last few years, and the highest number of livestock per pastoralist household can now be found in the north. (for more information, view the NMAK report).

The **western provinces house more short-range migratory pastoralists than long-range migratory pastoralists**. In contrast to most other regions, there is no clear social or ethnic boundary between the sedentary and the nomadic people. Most of the pastoralists (as well as the sedentary people) are Durrani Pashtun, but other Persian-speaking minorities are also included. There are strong relations between the sedentary and the nomadic households, and there is a tendency to sedentarize and renomadize depending on the circumstances for which kinship ties between the communities are essential.

The **southern provinces hold two types of pastoralists; the long-range migratory pastoralists**, migrating towards the Central Highlands in the spring and returning to the southern plains during the winter. These are predominantly Pashtun pastoralists, whereas the second group consists mostly of Beluchi pastoralists. The latter group uses the **Registan** as their main resource base, but due to the severity of the last drought where pasture and nawors ('water pans') became depleted, most of these (former) pastoralists have resided in IDP camps for the last 5 years (more info from CADG, Cordaid).

Also the long-range migratory pastoralists have been **severely affected by the drought, through which high numbers of livestock were lost (estimated at 70-80%)**<sup>12</sup>. This was no doubt compounded by the restricted access to some of the main summer pasture areas, like Nawor district due to ethno-political strife. (more info in chapter 5). The winter grazing areas in the south are relatively poor, leading to a high dependency on supplementary feed. During the summer period the animals gain in body weight, only to slowly reduce in condition during the autumn and winter. With decreased summer pasture, the resistance of animals to cope with

<sup>10</sup> Personal comm. Dr. Nasari, DCA

<sup>11</sup> Patterson, 2004.

<sup>12</sup> De Weijer, 2002.

drought was limited. The pastoralists of the south are quite 'pure pastoralists', with a relatively low degree of diversification and little scope for agriculture as a secondary resource.

The **south eastern** provinces have also been quite badly affected by the drought. In Khost province, land tenure conflict seems to be quite prevalent with occasional outbursts of conflict. Most of the Khost pastoralists are long-range and move towards Paktya province in the spring. During the winter, some of these pastoralists move across to border into Pakistan. Paktika province houses predominantly short-range migratory pastoralists.

The **eastern provinces**, are predominantly long-range migratory<sup>13</sup>. Migration is towards Kabul, and then either southward to Logar or northward toward Parwan and Panshir. Nangarhar is the province with the highest number of pastoralists in Afghanistan, even though a relatively high number of these are only partially migratory. Levels of income diversification seem to be higher in the east than in the south, and there is a large proportion of the pastoralists that own some land and practice agriculture alongside pastoralism. The eastern pastoralists have been a little bit less affected by the drought than those in the south, and livestock numbers are higher though nowhere near as high as the northern provinces.

In the **whole country**, one can find 'kuchi' that have **settled** either in their winter area (most commonly) or in their summer area. These are either conscious decisions, and thus a sign of relative welfare (land ownership, ample employment opportunities), or signs of destitution. This corresponds well with Barth's famous axiom that on both sides of the spectrum of pastoralism people settle; the rich because they invest in land or other assets (for instance trucks!), and the poor because they lose their livestock and drop out.

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<sup>13</sup> for more information, ref de Weijer 2004 (NMAK) and de Weijer 2004 (Microfinance)

## 4. HOUSEHOLD ECONOMY

### A. Livestock-derived income

Pastoralist households are relatively independent economic units; internal support mechanisms do exist to some extent<sup>14</sup>, particularly between relatives, but as a general rule the households are economically self-sufficient. This stands in contrast to most pastoralist societies in Africa, where community support mechanisms and stock lending is of the highest importance. These mechanisms are essential for risk spreading and function most efficiently in a subsistence economy. The Afghan pastoralists are much more integrated in the commercial economy, with a purchased commodity (bread!) being the staple diet.

Own production of a pastoralist household consists mostly of **milk and milk products** (ghee, yoghurt, buttermilk and qurut (dried buttermilk)). Most of these products are used for own consumption, and for consumption of the lambs and kids, but surplus is sold in the market. **Wool** is sold in the market, and is considered to be the second important source of income. The main source of income however is the sale of male lambs. Household expenditure is on wheat, tea, sugar, and other food commodities, alongside other essential items such as supplementary livestock feed, medicines for humans and animals and clothing.

**Lambs** are born in spring, and raised until they are ready for sale. The age of sale depends on the need for cash, the availability of pasture, and the availability of working capital to purchase supplementary feed, and the market prices. Lambs that are sold at 1 year, 1 ½ or even 2 years are more economically profitable than those sold at 6 months<sup>15</sup>. However, anecdotal information suggests that a high proportion of the lambs are sold around 6 months, in order to reduce the costs for supplementary feeding through the winter. The market prices and the condition of the animal are other important factors that contribute to the economic profit to be made from the animal. In certain times of the year (notably at Eid) the prices are high, and animals in good body condition can fetch very high prices (up to 8.000 Afg). Fattening of the animals is an economically productive exercise, if the liquid capital for the purchase of the feed is available. (ref MISFA report for more information on potential profitability of the different systems).

Therefore the age of the lamb at time of sale, and the price fetched is a good indicator of the economic stress of the pastoralist household.

A small proportion of the pastoralists own agricultural land and use agriculture as a secondary source; they can therefore be called agro-pastoralists. 16% of the total number of pastoralists assessed in the NMAK own some land, but some of these only grow fodder crops on this land.

Income from livestock products is a very important source of income, but by no means the only source of income. Even in good times, it is only the richest of the pastoralists that manage to obtain all their income from their livestock. Other income opportunities, such as harvesting in the harvest season, shepherding of animals for other pastoralists, for settled people or for traders, selling of firewood, selling of dung, and livestock trade are opportunities seized. These are 'normal livelihood strategies' which can be upgraded at times of increased stress. Demand for these additional income sources rise, and supply decreases. Shepherding is a mechanism with mutual benefit for the shepherd and the owner of the livestock, but with increased climatological stress and reduced

Pastoralist's households are relatively independent economic units, and are well integrated in the cash economy.

The main source of income is the sale of the male lambs, whereas they aim at maintaining the females for future reproduction.

Generally, additional (seasonal) income opportunities are seized when these are available.

<sup>14</sup> For more information, refer Weijer, de, 2002 (Micro-finance)

<sup>15</sup> For more information, refer Weijer, de, 2002 (Micro-finance)

livestock numbers the opportunities for shepherding plummet and demand rises. Pastoralists turn increasingly to agricultural labour, casual labour in the main bazaars; they collect stones for construction, work in brick factories, try and find employment in road construction, and even begging.

No data is currently available, but anecdotal evidence clearly suggests that high numbers of male members of the pastoralist household leave the pastoralist community to go to the main bazaars in an attempt to find casual labour to supplement the income of the family. On a regular basis, a week or even a few months, they return to the family and contribute to the income. When visiting a pastoralist community nowadays, it is not rare that not a single man of medium age can be found; the animals are herded by young boys, and older men take care of security and social obligations. One of the inherent problems with this type of 'income diversification' is that the pastoralists do not have any comparative advantage vis-à-vis other casual labourers; they generally do not have the right connections, and they are unskilled.

## **B. Non-livestock derived income**

The **minimum viable herd** is a concept that is used commonly to describe the minimum number of animals that is required for a household to be economically sustainable. Of course this is a concept fraught with difficulty, due to the inherent dynamics of the system; market access, change in terms of trade, household size, household labour supply (both male and female), climatological dynamics, and access to pasture lands are only some of the factors that affect this number. Pastoralist production systems are not static, they are dynamic and risk-prone and revolve around mechanisms to manage and reduce risk.

One of the mechanisms to reduce risk is to increase the number of animals during times of plenty, to act as a buffer in times of stress. Therefore the number of animals aimed for will always be higher than the 'minimum viable herd'. However, this mechanism has in the past (and to some extent even up to now) led to the theory of the 'tragedy of the commons'; which stipulates that herders will try and increase their herd sizes to a point that this will inevitably lead to overgrazing of the lands. The thought behind this is that since there is no private ownership of the pasture land, the herders do not feel personally responsible for the status of the range land and will therefore allow it to reach a state of overgrazing. These issues related to rangeland use will be discussed later, but at this point it can be stated that this not necessarily hold true in the case of the Afghan pastures.

The other underlying thought is that herd sizes will grow limitlessly, which is a thought countered by the reality that labour is in fact the factor that limits growth of the herd<sup>16</sup>, in particular female labour. This places a limitation to the number of animals kept per household, and a plateau is reached<sup>17</sup>.

However, worldwide there is a growing tendency towards non-pastoral livestock owners that use the pastoralists to herd their animals as their capital. In this case, the livestock products like milk and wool are not used optimally since the purpose is capital accumulation and not economic independence. Labour is less of a limiting factor in herd growth, and therefore the traditional dynamics and economics may not apply, and larger herd sizes may occur. Whether this is the case in Afghanistan is not clearly known, however this is more likely to materialize after the drought years and not during the drought years. This will be an interesting topic to investigate further in the years to come.

Different sources of literature present minimum viable herd sizes from around **40 to 60 sheep per household**. This number however would represent a 'normal pastoralist household economy',

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<sup>16</sup> A good analysis on this topic is written by Bernt Glatzer in 'limits of growth', 1983.

<sup>17</sup> Glatzer, 1983

thus including additional –non livestock- sources of income. The number of animals required for a pastoralist household to subsist on without external income sources is much higher; through interviews held by the author figures of over 100 sheep have been mentioned.

Therefore the access to additional sources of income is an important factor reducing the vulnerability of the pastoralists. In areas where relations with the sedentary people are good, and where agricultural labour, or casual labour is in demand (for instance where large construction companies are operational) a more diversified income can be seen. Unfortunately there are currently no data available on the ratio between livestock-related and non livestock-related income for the Kuchi, let alone for a geographical distribution of this income ratio. The NRVA data of 2005 will produce interesting data on this topic, and will lead to increased understanding of the level of diversification of the Kuchi.

**One region which stands aside from the other areas, is the Registan area.** Discussions with the (Beluchi) pastoralists that used to live in and around the Registan area, show that they consider the minimum viable herd to be at least 10 sheep per family member (plus 2 donkeys and 3-5 camels)<sup>18</sup>. Those that maintain in contact with the agricultural production outside of Registan, and thus gain access to employment opportunities (and fodder) shall be able to subsist on a lower number of animals than those that stay in Registan throughout the year. For the latter group, the notion of the minimum viable herd is of crucial importance for survival, whereas for the other group more opportunities are available for income substitution.

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<sup>18</sup> VARA/Cordaid, 2003.

## 5. ACCESS TO PASTURE

### A. Changes in summer pastures<sup>19</sup>

Summer pasture of the majority of the contemporary pastoralists of Afghanistan lies in the Central Highlands. It was only in the late 19<sup>th</sup> century that these areas were opened up to the kuchi by Amir Abdurrahman Khan, as a means of extending his own control into these areas. He did this by settling Ghilzai Pashtun into the Northern and central areas by giving them agricultural land, and through giving access to the largely unused pasture areas in the Hazarajat to the kuchi.

In 1894 the emir even issued a decree forbidding Hazaras to henceforth use any pastures at all. The kuchi were issued with grazing rights. Changes in the legal status occurred in the mean time, which entrenched the kuchi rights to these pasture lands even more, and even allowed them to trade in these rights.

For a period in the 60s and 70s a certain level of symbiosis was present in those central areas, with Hazara also benefiting from the presence of the kuchi as traders and occasionally providers of labour opportunities. However, conflict would erupt at times and the Hazara were not wilfully accepting the situation, but were unable to fight what they perceived as the unfair appropriation of their pastures. Trade on credit basis was introduced into Hazarajat by the kuchi, and in some cases this led to kuchi obtaining agricultural land (and the pasture lands associated with it) in exchange for defaulted loans. This led to the kuchi becoming land owners in these areas, and a change in power balance in favour of the kuchi, to which Hazara resentment grew even more.

During the Russian occupation period, Hazaras gradually retrieved their lands. During the years of the fight of the mujahedin against the Soviets, and the period of civil war that followed, the grazing areas in the Central Highlands were never fully accessible to the nomads, as they had been before. Migration routes were disrupted due to the chequered control of different commanders controlling different areas and 'taxing' the livestock. Many nomads in the north have been looted on numerous occasions, and to have lost their livestock and abandoned the migratory lifestyle in these days, particularly in the north of the country. Local anarchy complicated the necessary migration and created chaos for the nomads as well as for the settled people.

During the Taliban years, the power relations shifted in favour of the Pashtun kuchi, who to some extent benefited from this situation. The kuchi are generally perceived to have provided support to the Taliban, which has created tension in the inter-ethnic relations specifically with the Hazaras. Certain groups of nomads were reported as wreaking havoc in the Shomali plains and Ghorband valley by allowing their livestock to graze and destroy vineyards and agricultural lands. Some nomads returned to Hazarajat, where they (had) owned land, and demanded to be paid 'rent' for their land, in the shape of harvest produce, which was in some cases taken by force. However, it must be stated that the Taliban did not provide full support to the nomads and

Over the last century large changes have occurred in the grazing lands used by the pastoralists.

The main summer grazing areas in the Hazarajat were not opened up for grazing by the pastoralists' herds until late 19<sup>th</sup> century.

The years of war have led to changing power relations, and factionalism, which has disrupted migration patterns and access to the Hazarajat.

The closure of the border with Pakistan over the Pashtunistan conflict in 1960-61 has led to a change of the winter pastures from Pakistan to Afghanistan.

In the current situation, large parts of the Hazarajat are blocked off by the local people or commanders, and the pastoralists are not allowed access.

<sup>19</sup> Information derived from several sources, including Mousavi 1998, Alden Wily 2004, de Weijer 2002, Patterson 2004.

tried to control the situation by reducing access of the nomads deep into Hazarajat. According to the nomads, they have not received full access to the Hazarajat since the time of the King (Zahir Shah).

In the present days, the traditional system of pasture rights seems in certain areas to be replaced by the power of the gun. Local power relations often determine the rights of access. The payment of taxes to the people who control the pastures (be it villagers, other kuchi or local commanders) is becoming seems to have become increasingly prevalent, and the access to pasture is therefore partly determined by political clout and purchasing power.

Large pasture areas, particularly in the Hazarajat, can currently not be accessed by the kuchi, who are forced to remain behind in areas with less pasture. NMAK estimated that 21% of the kuchi can not access their 'traditional' pasture area due to these ethno-political conflicts.

In the early summer of 2004, attempts were made by the Ministry of Frontiers and Tribal Affairs to establish a local tripartite agreement between the kuchi, the settled people and the local government which allowed the kuchi to enter into Nawor district of Ghazni province. The kuchi did indeed enter, and grazed their animals without complication for around a month, after which a local commander visited the camps and demanded an extortionate tax on the kuchi's presence. The kuchi fled, after which it came to a confrontation between the local commander and the few remaining kuchi. This shows that agreements can be reached between the actual users of the pasture, but that rule of law and enforcement of agreements remains a major issue.

## **B. Changes in winter pastures**

During the time of the British occupation of India, the afghan nomads were still using the lowlands of India as their winter pastures. The increasing presence of a stable government led to a limitation and regulation of the nomad's movements in the area, which led to a reduction in the number of afghan nomads wintering in India.

Trade conventions between Afghanistan and British India caused an increase in formal trade to the expense of the more 'informal trade' carried out by the nomads. The partitioning and the creation of Pakistan caused a lot of the nomad's business partners to flee to India, which further damaged the nomad's trade. The regulation of movement across the border became even more tight under the Pakistani government.

The Pashtunistan conflict which erupted in 1961-1963 effectively led to a closure of the border between Pakistan and Afghanistan. As a result Afghan nomads were cut off from their winter grazing grounds and were forced to either abandon pastoralism or relocate to winter grazing areas within Afghanistan<sup>20</sup>. During the first year, and then with lesser intensity in 1962, nomads actually fought with each other as they competed for new winter grasslands, and farmers resisted the nomads who established winter quarters near their villages<sup>21</sup>.

This led to a reshuffling of pasture user's rights in these new winter locations, from which ripple effects are still visible today in the provinces bordering Pakistan. Many of the wealthier kuchi abandoned livestock production at this point, and invested in other businesses which is one of the reasons why many wealthy kuchi are involved in the transportation business nowadays.

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<sup>20</sup> Pedersen, 1994.

<sup>21</sup> Dupree, 1980

### C. Pasture users' rights.

#### The commonly held notion that pasture is open for all to use does not hold true in the Afghan case.

As Wily describes, the legal status of pasture is very unclear in current legislation. Over the years, pasture has alternately been described either as 'un-owned land' or as government land. The Land Decree issued by Karzai effectively places all pasture lands once more under government control, and leaves no space for common owned pasture, let alone for a distinction between private and public pasture. In such a case, the government owns the pasture, and can allocate 'users' rights or leasing rights to individuals or groups. Existing documents remain valid, in spite of the fact that many of these documents are conflicting with each other.

During the Taliban rule, the official legislation on land included an article which used this rule to determine the boundary of private pasture. That Taliban law is the only law in the recent history of Afghanistan that recognizes the concept of private pasture and public pasture. Private pasture is defined as those pasture areas which can only be used by the residents of the adjacent communities, and 'public pasture' may be used by anyone. The distinction between public pasture and private pasture is quite well understood by the people.

A traditional Islamic practice (or Pashtun?) states that as far as the voice of the muezzin can be heard, the pasture land belongs to the village ('private pasture'), whereas beyond that boundary it is 'public pasture'. This was the basis for the Taliban law described above.

Wily describes how the Hazara people in Bamyan use a system whereby the pasture lands upland from the farmland, 'up to the highest visible ridge above it' is private pasture.

Glatzer describes in detail the mechanisms that apply to pasture rights<sup>22</sup> in Western Afghanistan:

*Pasture rights can be summarized as follows: (a) In the lowlands (winter area) there is neither individual nor corporate ownership of pasture, except in the immediate vicinity of villages. Pastures are free for all as long as those who claim usufruct rights for a defined area do not appear with their animals on the scene. Reservation in absentia is not permitted. Usufruct rights can be obtained simply by using an area for several consecutive years. (b) In the highlands (summer area) the best pastures are under the control of the nearest village who own the pastures corporately and rent them out to nomads on a seasonal basis. Nomads can acquire firm grazing rights by purchasing farm land, canals or wells in or adjacent to the pasture. This option is rarely used because the quality of a given pasture in the western Central Highlands may change from year to year and cannot be depended upon.*

Pasture user's rights have in the past been obtained through different mechanisms:

- through pasture rights allocation by royal decree or through the provincial administration,
- through customary practice,
- through payment of taxes to the 'rightful' users.

There is a great overlap in these various mechanisms and different interpretations from sedentary and nomadic communities. Since not one formal and mutually recognized system exists, this is an area of immense discontent.

Existing power relations have always had great influence on how the various 'rights' were interpreted.

However, the fact that customary arrangements do exist and have functioned in the past to some extent, this could be built further upon as mechanism for reconciliation.

<sup>22</sup> Bernt Glatzer, 1995.

In different areas, different mechanisms will no doubt exist, which have not been mapped out. When different 'customary arrangements' meet and are found to be conflicting, problems may occur. These 'customary arrangements' may also be interpreted at will, to maximize one's own benefits<sup>23</sup>. Depending on the systems used, and the extent to which these mechanisms are mutually recognized will to a large degree determine to potential for conflict to arise.

Even the public pastures are not as 'public' or for 'common use' as they may seem. In the eastern and southern parts of the country, the areas best known to the author, large pasture areas have been 'allocated' to different kuchi tribes, who hold customary 'user's rights' to these pastures, which are generally recognized by other kuchi and also by the settled people. Some of these 'user's rights' have indeed been granted through legal documentation, whereas in other cases these rights are based purely on customary rights.

'Public pasture' is thus allocated to specific groups, who can use the pasture and exercise control over other users. During recent interviews held by the author with kuchi communities in Nangarhar and Laghman, several cases were found where kuchi tribe A would negotiate access to the pasture area of kuchi tribe B. A delegation was sent to determine the exact conditions of use, which included the payment of 'taxes' for the use of that pasture. Each year this contract would need to be renewed.

Other cases are well known where the settled people allow the kuchi to graze on 'their pastures', through payment of a tax. It has been explained that this tax serves two purposes; 1) a compensation for the use of their resource, and 2) to prevent the kuchi building up 'customary' user's rights to these pastures. This may well be the system that is abused by local commanders, levying extortionate 'taxes' on kuchi grazing 'their lands'.

These systems are also referred to as '*hamsaya*'; living as '*neighbours*' with other people. Pastoralists in Parwan province described how communities that have difficulty accessing their traditional pastures would live as '*hamsaya*' with other pastoralist groups or with the settled people. In some cases no payments are required, particularly when it only involved a few families, whereas in other cases taxes would be demanded (both by other pastoralist groups and by settled people).

This leads to an increased fragmentation of pastoralist communities in the summer season. Communities that would normally prefer to stay together during the summer are now forced to split up and move to different areas.

In spite of the enormous level of conflict hanging over the pastures, and the continuous changes in policy and preferential support to different groups, it is in fact incredible how well the customary systems still function (possibly with the exception of the Hazarajat, but even there pockets exist where community based agreements function). User's rights therefore still are quite well established and recognized, be it in different ways in different areas.

The deputy minister of Frontiers and Tribal Affairs, Mr. Babrakzai, a lawyer by profession, explained at length the traditional (Pashtun!) courts that are set up at the boundary of private and 'public' pasture to deal with conflicts over such issues (in Pashtun areas).

Clearly, a system of customary user's right with a certain degree of mutual recognition of these rights, does not mean that no conflict can erupt, as the previous chapter shows. Balikci also describes how grazing rights do need constant political manoeuvring within local power relations and are not static. Often, he states, nomads do not occupy empty niches but go into direct competition with villagers or other nomads for limited grazing<sup>24</sup>.

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<sup>23</sup> Liz Alden Wily, 2004.

<sup>24</sup> Asen Balikci, 1990.

However, it does mean that customary practices are there, which have at a certain point in time have functioned and may be used to build further upon in the future. Patterson also described how in Shiwa (a very large pasture area in the north east), in spite of long years of dispute, a consensus could be reached between the communities and agreements could be drawn up, when they were enabled to do so<sup>25</sup>.

#### D. Land tenure insecurity.

In addition to problems related to grazing rights and access to the pasture, which are most prevalent in the summer areas, there exist issues related to residential land insecurity. The winter area is, in relative terms, the more permanent base for the kuchi. Increasingly, one can find communities that are settling on the land where they would traditionally dwell in the winter area. The most important group is that of the destitute kuchi, those who have lost all their livestock and have turned to other sources of income; they have a tendency to settle in their winter areas. In addition, there is a tendency for communities to move towards a system of partial migration; partially migratory communities consist of households that do migrate in the spring, and others that stay behind.

When taking a broader view, it has to be recognized that with the on-going reduction in pasture land - which can never be fully stopped due to urbanization and modernization - the number of pastoralists living a sustainable livelihood as 'pure pastoralists' will need to reduce over time. This requires education, a diversification of income sources and a reduction of migration. Pastoralism will become more of a specialism, carried out by kuchi specialists.

Destitute pastoralists, that have lost all their livestock, tend to settle permanently in their traditional winter areas. There they are often at risk of being evicted from the land by local residents or commanders.

This places additional stress on already destitute people.

This trend is already visible in many parts of the country, in particular in the eastern parts. However, this development brings along its own problems; those of **land tenure insecurity**.

Due to the relatively large problems associated with the summer pastures, and the fact that the kuchi are much less fixed in one place during the summer than during the winter, it is in the winter area where development projects for the kuchi would most likely take place. Schools, community health centres, water sources; all these are greatly in demand and will have the greatest impact in the winter area.

However, it is often seen that the local resident people will allow the presence of the kuchi on the land, as long as this on a seasonal basis. As long as they pitch up their tents for a few months a year, all is well. But establishing infrastructure, or even a well is quickly associated with the kuchi increasing their claim to the land, which immediately evokes a reaction in the local residential population or their leaders; 'you're a kuchi, go and migrate!'. In other words, they are not 'allowed' to create a settlement.

Conflict may erupt, and has often erupted in the past. This type of land tenure insecurity is likely to only increase if the trend towards partial migration continues, as it probably will.

The power relations in the area, and the level of discontent over the land determine the outcome of this conflict, but many 'kuchi' communities that have become 'settled' find themselves constantly at risk of being evicted or are made subject to high 'taxes'.

Settled or partially settled kuchi communities often continue to live in tents, or put up very simple structures, because the settled people will not allow any more permanent building. Many cases

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<sup>25</sup> Patterson, 2004

are known where they kuchi are being submitted to extortionate, random taxing by local commanders or even villagers. Water and sanitation projects have had to be stopped, due to threats by the local commanders.

This land tenure insecurity hampers all development, all modernization of the 'kuchi way of life'. To adapt to modern circumstances, the kuchi must have the flexibility to adapt, and this is greatly constrained by this land insecurity. In particular the women are suffering from this land insecurity, since they tend to be the first ones pleading for a more sedentary lifestyle; they are the ones having to walk long distances to the nearest water source; and they are the ones having to pack up their tent and pitch it up elsewhere.

Before one can start thinking of developing basic health and education facilities, or any other project that involves some type of infrastructure or water source, one must deal with this land tenure insecurity first. In the vision of a 'modernized pastoralist production system', this is a major obstacle that has to be dealt with.

Recently, a Land Reform Working Group has been established, lead by the Ministry of Justice. This Working Group exists alongside a Land Commission, led by the Ministry of Agriculture. It is of the highest importance that this institutional confusion is cleared, and that this particular type of land tenure insecurity is taken into consideration and measures are identified. Local negotiation processes, such as described above for grazing rights, are probably also the best solution for solving these issues. But they will need to be embedded in a clear legislative framework, which leaves no ambiguity towards these 'residential users' rights'.

## 6. CURRENT STATUS

### A. Livestock numbers

FAO completed a livestock census in 2002-2003. Unfortunately, the livestock census only covered a small number of pastoralist families, mostly due to insecurity along the Pakistani border. The total livestock numbers counted are:

<b>FAO livestock census 2003</b>
3.72 million cattle
8.77 million sheep
7.28 million goats
1.59 donkeys
0.18 million camels
0.14 million horses
12.16 million poultry

FAO cautions that comparing livestock numbers from the different surveys carried out (1995, 1998) is not sensible, due to coverage and extrapolation difficulties. FAO finds it more useful to compare the number of livestock owned per family has declined steeply between 1998 and 2003, but the decline had already set in in the 1995-1998 period. For this comparison they only use the resident households, since so few pastoralists were reached.

When going further back in time and comparing the pre-war levels (1978-79) with post-war pre-drought levels (1995; which seems to be more reliable than 1998) and post-war post-drought levels (2003), an interesting picture emerges:

<b>Species</b>	<b>1978-79<sup>26</sup></b>	<b>1995</b>	<b>2003</b>
Cattle	3.73	3.69	3.72
Sheep	14.41	22.0	8.77
Goats	3.00	8.93	7.28

Table 2 Livestock numbers (in millions)

The number of cattle was at similar levels during these 3 years of statistics, but the sheep and goats fluctuated quite severely. The number of sheep quite sharply increased between 1978 and 1995, as well as the goats. The years of drought have taken their toll in the recent years and both sheep's and goats' numbers have been reduced considerably again.

However interestingly, the number of goats kept in Afghanistan is currently 2.4 times higher than in pre-war times, whereas the number of sheep is currently only at 60% of pre-war levels. Does this indicate a shift towards goats keeping?

When adding up the goats and sheep (so as to derive at 'shoats') the current levels are at 92% of pre-war levels. This is an interesting observation, since it can be assumed that pre-war a certain equilibrium was present on the pastures with those livestock numbers.

FAO conducted a livestock census in 2003, but unfortunately very few kuchi herds were enumerated.

With caution it can be said that estimates on livestock numbers in the north are reaching their pre-war levels, whereas the south and the east is lagging far behind.

It can be guesstimated that kuchi own around 30% of the national herd.

<sup>26</sup> Ministry of Planning Afghanistan; taken from the World bank's 'Role and the size of the livestock sector in Afghanistan'.

During the 1995 survey, FAO found that the average sheep flock for pastoralists was 100 head.

The National Multi-sectoral Assessment on Kuchi also provides some information on number of animals kept per household by the pastoralists. This data needs to be treated with caution however, since it relies on reported data and not a physical head count<sup>27</sup>.

The average number of livestock kept per household, according to NMAK, was 50 shoats (sheep and goats), 1.7 camels and 1.2 cows. This is about half of what was estimated by FAO in 1995.

Large regional differences were seen in the NMAK data: the number of 'shoats' per household in the north was 119, central and east 37-38, and the south and west 21-23. This would indicate that livestock numbers in the north are back to pre-drought levels, whereas the other regions of Afghanistan fall far behind.

FAO estimated that in 1995 the pastoralists owned 50% of the national herd in 1995<sup>28</sup>. The FAO 2001 annual report presents livestock numbers which show that the pastoralists own 30% of the sheep and 39% of goats. However, the source of this information is not clear to the author, since no census has been carried out in the mean time.

## B. Range Land

Pastoralists migrate between seasonal pastures, to make optimum use of the different growing seasons of the pastures. The vast and highly productive grazing areas in the central mountainous parts of the country can not be fully utilized by the resident farmers. The deficit of feed availability during the winter places a limit on the number of animals that can be kept. Only by retreating

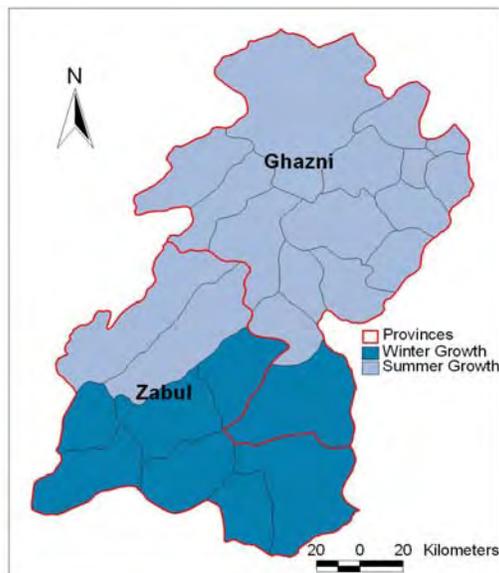


Figure 2 Summer and winter growing areas (G. Cassidy, 2004)

towards the 'winter' pastures as a secondary resource allows for the 'summer pastures' be utilized to their potential. In other words, the pastoralists occupy a niche and they use the marginal lands which can not be used for livestock production by sedentary farmers. Since (most of) these lands are marginal lands, they can also not be used for agronomic production.

Transhumant pastoralists use the seasonal pastures in the summer and the winter. The more elevated pastures start to grow with the receding snow line after the winter, producing good vegetation during the spring and early summer. Mid to late summer, the vegetation starts drying up.

A study conducted by IOM<sup>29</sup> shows two clear distinct growing seasons in Ghazni and Zabul provinces: lower elevation districts in the south exhibited lower levels of vegetation, growing primarily during the winter months, and upper elevation districts at higher latitudes grew primarily

<sup>27</sup> Kuchi tend to under-report their livestock holdings, in the hope of securing more aid. Whether this was the case in this survey is difficult to ascertain, particularly since the question of livestock numbers was asked immediately after the question which vaccines they required. Knowing the demand for vaccines among kuchi it was hoped this question would raise the reported livestock numbers to more realistic levels.

<sup>28</sup> Source: FAO livestock census, 2003.

<sup>29</sup> Cassidy, 2004.

during the summer months, and had greater levels of vegetation. The higher elevation districts in the north should be utilized from early May through September, and districts in the south should be utilized from September through April.

The summer pasture is used for production; the animals grow in bodyweight and production levels increase. The winter pastures are used for maintenance; in most cases supplementary feed is required for the survival of the animals<sup>30</sup>. A number of studies have shown that body weight of the animals is severely reduced during the winter period, when grazing is limited. This is often considered the nutritional bottle-neck.

According to FAO, 45.2% of total land area is considered rangeland. When looking at the land cover map it becomes clear that this range land does not include any of the peripheral areas of Afghanistan in the south and west, and to some extent in the east and north.

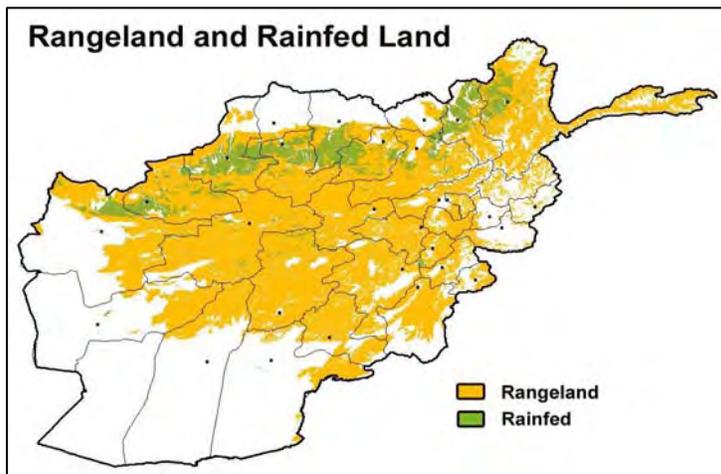


Figure 3 land cover map; range land and rainfed land

FAO estimates that more than 70% of the total land area of Afghanistan is suitable for rough grazing.

FAO estimated that 20 million tonnes of dry matter was available from the grasslands of Afghanistan<sup>31</sup>, and an estimated 3.5 million tonnes of roughage from agricultural by-products. Using a more realistic percentage of grazeable area of 70%, the dry matter off-take would be 15,8 million tonnes, plus 3.5 million tonnes of agricultural by-products.

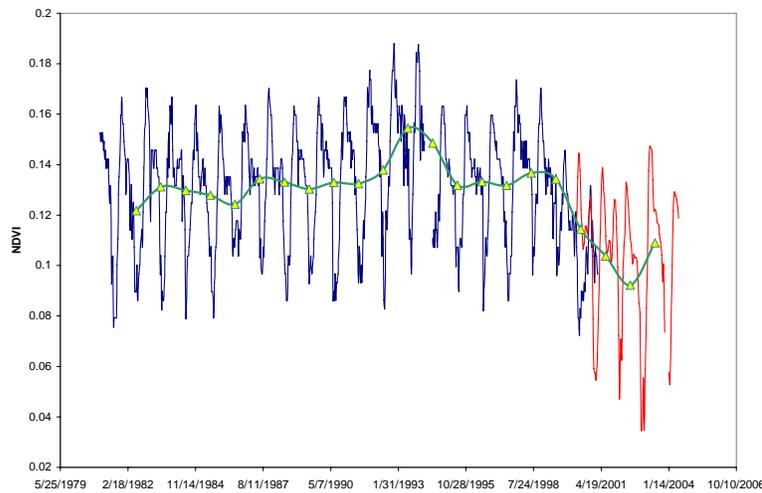
This figure does not take into account the other forms of supplementary feed, like bread, seed cake, imported feed, maize etc. Glatzer calculated that 18% of the income is used on the purchase of supplementary feed in 'normal years', and the author obtained information from pastoralists in Nangarhar and Laghman that they spend between 300 and 2000 Afg (US\$ 6 to 50) on supplementary feed per animal per winter season.

This figure also does not consider the grazing of pastoralists' animals on agricultural fields after harvesting. Therefore the real use of the resource base by the pastoralists can not easily be quantified, and the 'carrying capacity' of the land can not be estimated on the basis of the range land alone; calculations would inevitably lead to the false conclusion of severe overstocking, even at times when livestock numbers are known to be very low.

<sup>30</sup> Mc Arthur, 1979 (taken from Cossins, 1994)

<sup>31</sup> FAO Country Pasture / Forage resource profile; this seems to imply that 89% of the land area of Afghanistan is used as rangeland, which seems to be on the high side.

The NDVI (Normalized Difference Vegetation Index) does provide information on the dynamics of general trends in the growing season of a region. The graph below shows seasonal and annual changes in vegetation.



**Figure 4 Changes in NDVI from 1979 to 2004 (G. Cassidy)**

The NDVI can only provide general information on relative vegetation growth and dynamics. Without extensive ground-truthing it can not provide information on the current status of the range lands; in terms of potential rangeland degradation, species composition and palatability, etc.

A range land assessment was conducted by IOM for the provinces of Zabul and Ghazni, through the University of Arizona.

Stocking rates were determined for the summer pastures, based upon a number of assumptions. A number of assumptions were made (weight of average sheep and dry matter intake per annum, threshold of production below which the land is not utilized, threshold of steepness of the slope under which the land is not utilized, the number of days the grazing is used, etc). It has proven very difficult to compare these recommended stocking rates with actual or potential livestock numbers, due to difficulties in matching the districts and insufficient knowledge of the actual management patterns. Additional research is required to validate the assumptions, obtain more information on actual pasture use and on the palatability and nutritional value of the different plants. This study also did not focus on on-ground evidence of overgrazing and can therefore not answer questions regarding potential degradation of the pasture.

Only in the Registan, a comprehensive assessment of the status of the water and vegetation conditions was carried out by CADG in cooperation with Cordaid. They conclude that in certain areas the rangeland has been severely degraded, and the seed bank has been depleted. In other areas however, the pasture has returned after a few rains and though it will take more time to fully recover it has the potential to do so, and in other areas the pasture was found to be 'excellent'.

In other areas of Afghanistan no such assessments have been carried out, and even though many documents seem to state that 'the range lands are overgrazed and degraded', there does not seem to be any evidence to support these claims. In fact, due to the conflicts over pasture access certain areas may even been under-grazed.

Worldwide it is often seen in nomadic systems, is that overgrazing occurs mainly around settlements and is caused by sedentary herds. It is lack of mobility that causes overgrazing, not mobility. FAO states also that in Afghanistan 'overgrazing is probably mainly caused by the sedentary stock since the pastoralists only graze for a short season (and rested the land under their traditional systems) whereas farmers' stock graze every day unless there is snow cover.

It is of crucial importance to gain a better understanding of the current status of the rangelands, of its potential to recover, and which range management practices can support the recovery. However, to do this at a national level may lead to similar problems in interpreting the results as faced by the IOM study. It may be more effective to conduct such assessments at a more small-scale level.

## Effects of drought on the range lands.

Clark (1984)<sup>32</sup> studied the effects of drought on vegetation and states: *'The effect of a drought on vegetation are not clear. In western Afghanistan, the dominant perennial plant Artemisia Alba may take two years to fully recover from the short period of intensive grazing at the outset of a drought and the subsequent period of desiccation, but highly productive annuals were seen to be fully recovered within 12 months of the drought breaking. In very general terms, most studies suggested that vegetation cover and species variability of the grazing area of western Afghanistan at least, was not in a state of degradation, but had reached a relative stable state, which fluctuated within recognizable limits depending on seasonal rainfall.'*

This would indicate that the rangelands of Afghanistan have a strong capacity to recover, but it still does not answer the questions whether the recent drought and associated grazing has exhausted the resilience of the pasture lands.

It has been calculated that a drought occurs on average every 10 to 15 years. Climate change may confound this picture; drier conditions and shorter more intense rainfall periods can be expected. Just how this will affect the afghan rangelands remains to be seen.

## Encroachment on pasture land

Ploughing up of pasture land for rain fed agricultural is an increasingly widespread phenomenon in Afghanistan. In the hope of getting a quick return, the pastures are ploughed up, the indigenous vegetation destroyed and severe erosion is the result. FAO estimated that 50% of Dasht-e-Laily in the north has been ploughed up; a process that started probably in the early nineties and became exacerbated during the last years. Low livestock numbers and the fleeing of a lot of the pastoralists from the area led to a vacuum, which easily led to occupation of these areas by commanders. Lack of rule of law, combined with low livestock numbers and lack of awareness (or care?) about the long-term consequences of this practice, have led to significant reduction of pasture land. Patterson<sup>33</sup> describes a similar story for the Shiwa area in Badakhshan, where an estimated 22% of the pasture has been converted into agricultural land.

Large developments, urbanization, expansion of agricultural irrigation schemes all lead to reduction of pasture land available. For future economic development this is inevitable, and should probably be supported for the benefit of country as a whole. However, it does need to be recognized that this will lead to increased pressure on alternative pasture resources and that a reshuffling of user's rights may be noticed.

Rangelands cover around 45% of the total land area in Afghanistan, according to the FAO land cover map. However, large areas which are considered 'barren land' or 'waste land' are also used for grazing, particularly in the winter season.

The total grazeable area therefore is much larger, estimated at 70-85% of the total land area.

No comprehensive assessment of the current status of the range lands, and the (reversible or irreversible?) effects of the drought on the range land has been carried out.

Even though a number of documents claim that there is extensive over-grazing in Afghanistan, there is no evidence that corroborates this. Due to socio-political factors access to certain pasture areas has been reduced, which could theoretically even have led to undergrazing.

Increasingly, pastures have come under rain fed agricultural production, with devastating effects, most notably in Dasht-e-Laily and Shiwa.

<sup>32</sup> Clark N, T, 1984.

<sup>33</sup> Patterson, 2004.

## Use of rain fed agricultural land as pasture land?

As much as the pastoralists occupy an ecological niche which allows them to optimally utilize the feed resources available, it must also be recognized that in reality they do not always fit inside this niche neatly and do go into competition with other resource users.

Particularly in Hazarajat, land may have been used as pasture land which could also be used as agricultural land<sup>34</sup>. Alden Wily presents examples where the valley floor is owned by the pastoralists and therefore used as pasture land, whereas higher productivity from this land could be obtained through rain fed agriculture. Currently, the pastoralists do not have access to these lands, and most likely they will be in use by the resident farmers now.

Historical factors and local power relations have determined the land use over time, and are difficult to change. However, with Afghanistan aiming at moving towards an increased agricultural production capacity to reduce (chronic) food insecurity, these land use patterns will need to be considered. The current conflicts over access to pasture will need to be resolved, at which point land use will need to be re-evaluated.

## C. Animal Health

### *Performance parameters*

Fertility rates for sheep and goats for the years 1996 to 2000 have been determined by FAO<sup>35</sup>:

Species	1996	1997	1998	1999	2000
Sheep	71%	82%	90%	91%	72%
Goats	96%	117%	115%	104%	68%

Table 3 Fertility rates

FAO conducted a Kuchi survey in the southern, south western and eastern parts of the country in 1999 and 2000<sup>36</sup>, which included performance monitoring with 22 selected flocks, which is the source for the following parameters. .

In 1999 fertility rates of the Kuchi were 84% and in 2000 (one year into the drought) 64.9%. This is slightly lower than the 91% and 72% from the national average<sup>37</sup>.

One of the reasons given for this relatively low fertility rate among the pastoralists' herds is the low male : female ratio which was found in the assessed flocks; 1 to 63 in sheep and 1 to 53 in goats. The recommended ratio is between 1:30 and 1:40.

In 1999 the neonatal death rate was 5.9% and losses of lambs up to weaning 7.1%. On average 90.7% of the lambs born were weaned. In 2000, only 64.9% of the ewes lambed and the average neonatal death rate was 12.1%.

As the national average, according to FAO, the neonatal death rate for lambs was 2% in 1999 and 16% in 2000. This is slightly higher than the death rates found in the pastoralists' herds in the same year.

### *Diseases*

<sup>34</sup> Ref Alden Wily, 2004.

<sup>35</sup> Majok, 2001.

<sup>36</sup> Barker et al., 1999, and Thieme, 2003.

<sup>37</sup> Majok, 2001.

Diseases recorded by the FAO kuchi survey team were: lamb dysentery, Sheep pox, Pasteurellosis, Food and Mouth Disease (FMD), Mastitis, Peste de petits ruminants (PPR), Anthrax, Scabies, blood parasites, CCPP, Ecthyra, Enterotoxaemia, Black Quarter, diarrhoea, liver fluke, endo- and ectoparasites, icterus, mineral deficiency.<sup>38</sup>

Significant infestation with gastro-intestinal nematodes (50.6%) was found in the surveyed flocks, but low to insignificant infestations with lung worms, cysts, protozoa, and liver fluke.

### **Use of veterinary services**

Around 75% of the drenched their animals once a year, and mostly in the late winter and early spring. 18.6% of the flocks were never drenched at all. Most anthelmintics were purchased in the bazaar, and only 3% from BVW or VFU. Some 'local medicines' were also identified by the team.

72% of the pastoralists indicated that they had never used or had contacts with the Veterinary Field Units, and the remaining 28% visited the VFUs less than 5 times a year. 98% of the treatments were carried out by the pastoralists themselves, and the remainder by the VFU staff (including Basic Veterinary Workers [BVW]).

62% of the pastoralists responded that they did not vaccinate their animals at all. When they are vaccinated, 55% of the vaccination was carried out by VFU staff, 16% by BVWs, and 29% by the pastoralists themselves.

Animal health problems are prevalent in the pastoralists' herds, but it is unclear how this compares with the sedentary herds.

Anecdotal information suggests that the Kuchi do not make optimal use of the existing veterinary services, and this could be improved upon.

More information is currently being gathered on the extent of which the VFUs target the pastoralists in their vaccination work. Large regional differences seem to occur in the extent that the animals are vaccinated.

According to the VFU staff, the pastoralists are more willing to pay for veterinary services than the sedentary farmers.

The most important recommendations of the survey team towards improving the animal health status of the pastoralists' flocks were:

- the two most important constraints to livestock production are 1) dealing with animal health problems and 2) winter feeding difficulties.
- There is insufficient knowledge of the VFU system amongst the pastoralists and there is insufficient support by the VFUs to the pastoralists.
- Pastoralists do not easily fit into the VFU system and therefore they need a different approach from that of the sedentary farmers.

Recent interviews held with the director of Veterinary Services, and VFU staff in Kapisa province present quite a different picture: they stated that the Pastoralists are a major source of income for the VFU staff on their passage through Kapisa on the way to their summer areas (Khawak, Salang). They estimated that between 70 to 100% of the pastoralists' herd would be vaccinated, and that in fact the pastoralists are more aware of the need for vaccination than the sedentary farmers, and they are also more willing to pay. The pastoralists that pass through Kapisa in the spring are mostly from Laghman, and in discussions held by the author with pastoralists in Laghman their demand for vaccines was very high. This could point to large regional difference in awareness levels, which is a point to consider in program development.

<sup>38</sup> The main diseases reported by Kuchi in the NMAK in 2003 are Foot and Mouth Disease (FMD), Anthrax, Sheep and goat pox, Pasteurellosis, Peste de Petits Ruminants (PPR), Black leg and Enterotoxaemia (in decreasing order of importance).

Survey forms have been sent out to the Veterinary Field Units in most provinces, to collect the perception of the VFU staff on the level of coverage of the pastoralists by the VFUs, and the potential contribution they can make to the income of the VFU staff. More information will be available in two months time.

A number of organizations supporting the VFUs have also trained Basic Veterinary Workers. In the south, MCI and FAO trained BVWs in the mid 90s. Very few of these seem to be working still; and a number of reasons have been suggested<sup>39</sup>: 1) expectation of the BVW to be salaried staff of the VFU, 2) the BVW were based at the clinic, and therefore not in touch with their own community, and they act as competition to the paravet or DVM, 3) the community leaders were not sufficiently aware of their roles and responsibilities, 4) the support to the VFUs, including supply of medicine, was withdrawn.

The main recommendations for a more sustainable system that uses BVWs are: 1) engage the community leaders in the initial discussions so that they become aware of the BVWs roles, 2) conduct participatory assessment or existing veterinary knowledge, 3) base the VFUs in their communities, 4) use a system of full cost recovery and re-supply of drugs through the VFU.

### ***Disease control***

It has to be recognized that the migratory system used by the pastoralists poses a potential threat to disease control in Afghanistan. Herds from different regions meet in large grazing areas in the summer and at water sources and may transfer diseases back to their winter areas, which may lead to a wider spread of disease. Vaccination of the pastoralists' herds is therefore of great importance, even more so than for the sedentary livestock owners.

Also in terms of animals health an optimal coverage of the pastoralists' herds by the veterinary services is required. DCA impact studies showed that the highest impact [of the veterinary services delivered through the support of DCA] is reached when animals were in contact with other flocks during the grazing seasons and the program was directed against parasitic and infectious disease. This picture fits the pastoralists perfectly, which shows that high impact can be reached among the pastoralists.

It is important to recognize that the migratory livestock production system differs from the sedentary system, and there are large regional differences in animal health status and care. Extension and animal health care services will always need to include a component of participatory research with the pastoralists to determine the specific constraints and opportunities in the region.

## **D. Animal husbandry**

### ***Breeding***

There have been few studies on the potential productive performance of the local breeds, and how this could be improved through better husbandry techniques or improved breeding. Work conducted on government stations suggested that fertility rates and wool production can be increased through modest improvements in nutrition and a parasite control program<sup>40</sup>.

Some experiments were conducted with the cross-breeding with Turkish and Russian merino sheep under experimental conditions, but it is very doubtful that these animals would have

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<sup>39</sup> Jost, 2004.

<sup>40</sup> FAO 1966; taken from Cossins, 1994.

survived under field conditions<sup>41</sup>. It has been found internationally that the import or cross-breeding with 'improved breeds' is fraught with problems and not to be encouraged, particularly in the more traditional systems where conditions can not be controlled. Local breeds are adapted to the local conditions and the disease situation. Improved nutrition and breeding practices are more appropriate mechanisms to increase livestock productivity, especially in extensive production systems.

Winter nutrition is the main bottle neck for livestock production. Supplementary feeding is practiced during the winter months, but not by all.

There may be enormous scope for increased livestock production and improved livestock health through improving the quantity and quality of feed intake during the winter months.

In the literature, different male : female ratios have been mentioned from different studies; some too low and some good. FAO presents quite low ratios in their Kuchi survey; 1 to 63 in sheep and 1 to 53 in goats, whereas they recommend a ratio between 1:30 and 1:40. This is an issue that may require consideration in extension services to the pastoralists.

### **Nutrition**

During the winter, the animals graze the natural vegetation which is the limiting factor in production. Breeding ewes were recorded as losing up to 30% of their peak summer weight during the winter in good to normal rainfall years<sup>42</sup>. All literature agrees on winter nutrition being the bottle neck for livestock production. The stress at the end of winter coincides with parturition at the end of February, when the ewes are in very bad condition. Improved nutrition in this key period could have a major impact on lambing rates, lamb mortality rates and milk production.

Of the pastoralists' households assessed by FAO<sup>43</sup> in 1999-2000, only 45% of the interviewed pastoralists provided supplementary feeding, mostly in December, January and February. Roughage (alfalfa, wheat straw and hay) and concentrates (maize, seed cake, barley and wheat) was provided. Interviews conducted by the author in Nangarhar and Laghman province point to a much higher level of supplementary feeding during the winter months in those provinces<sup>44</sup>, and a similarly high need for supplementary feeding was raised by the Beluchi pastoralists of Registan<sup>45</sup>. Older literature also points to the importance of winter feeding; Glatzer describes how 18% of the household income is spent on livestock feed. This points to regional and annual differences in the level of supplementary feeding.

A number of authors have commented on the fact that if pastoralists were able to produce their own fodder, they would have a considerable survival and production advantage (Balikci 1990, Tapper 1991).

Studies carried out in the late 1970s showed a 'nutritional puzzle'; the winter stocking rates were in line with the estimated carrying capacity (in other words; there was sufficient grazing available for the animals), whereas at the same time severe weight loss was observed during the winter (30%!). Similar results were found in another study conducted in 1980 by Glatzer (1980). The main conclusion that can be drawn is that the poor nutrition in the winter was due to low quality dry matter intake; not so much by an absolute lack of feed as by an imbalance in nutrients.

Improved nutrition through the improvement of the quality of the feed intake could have a significant impact on animal production. Cossins sees large potential in feeding molasses blocks as supplement:

<sup>41</sup> FAO 1979; taken from Cossins, 1994.

<sup>42</sup> Mc Arthur and Harrington, 1978, taken from Cossins, 1994.

<sup>43</sup> Barker, T et al.,

<sup>44</sup> Refer Weijer, 2004 (Micro-finance)

<sup>45</sup> Personal communication; van Engelen, Cordaid.

*Molasses blocks can result in dramatic improvements in nutrition and production, as well as adding strategic amounts of protein which will bypass the rumen. The challenge for the future will be to:*

- *determine, under otherwise traditional conditions, the improvements in productivity which can be achieved by providing small amounts of bypass protein per breeding ewe during the late winter period or before severe weight loss occurs*
- *and to develop an economically viable source of bypass protein which will be readily available from within the general production system.*

*These two activities have the potential to create the first major sustainable improvements in small ruminant production in Afghanistan since Pashtun kuchi gained access to the high summer pastures of the central mountains one hundred years ago'.*

FAO<sup>46</sup> experimented with feeding of molasses blocks to pastoralists' sheep in southern Afghanistan in October 2000 as a part of a relief programme. The feeding of the molasses blocks did not appear to be fully suitable to the management conditions of the nomadic flock. Some livestock owners sold the molasses blocks or fed them to the camels instead. Those who fed them to their sheep found it difficult to get their animals used to lick or eat directly from the blocks. They had to crush the molasses blocks into smaller pieces which was found laborious and not suitable to their conditions.

FAO attempted to record differences in body conditions between those fed on molasses blocks and a control group, but due to the problems described above no reliable information has been obtained.

Concluding it can be said that technically there is a lot of potential in increasing body condition through the feeding of molasses, a bypass protein and/or other feed supplements, but it needs to be accompanied by solid extension work and the right mechanisms need to be found in collaboration with the pastoralists. Currently, all molasses blocks are being imported from Pakistan. It may be worthwhile to search for a local alternative food source, even though the planned rehabilitation of the sugar factory in Baghlan may lead to local production of molasses.

The World Bank stresses the importance of mineral supplements; *'although protein requirements of ruminants are at least partially met by feeding legumes and cotton seed cakes, the mineral deficiencies are evident in the afghan livestock'.*

According to the FAO Kuchi survey, salt supplement is provided by 92% of the pastoralists. To my knowledge, no bone meal is produced in Afghanistan in the current situation.

Poultry is kept by the pastoralists to some extent; in some tents they will keep a few chickens mostly for own consumption.

## **E. Market development for livestock and livestock products**

There is very little quantitative information available on the actual exports or imports of livestock and livestock products at the moment.

Afghanistan seems to have become an importer of livestock, whereas pre-war 35% of its exports consisted of livestock and livestock products. Buffaloes and cows are being imported from Pakistan for slaughter, and large number of live or frozen chickens are being imported from the US and Brazil, and to some extent from Turkey and Iran<sup>47</sup>. Pakistan, Iran, the US and possibly China.

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<sup>46</sup> FAO, 2003.

<sup>47</sup> Fattori, T., 2004.

A recent livestock marketing study<sup>48</sup> found that 'there is reason to believe that the current price structures for sheep meat, which at present are generally rather favourable to producers, could continue into the future. Or, viewed perhaps more conservatively, there would be reason to believe that increases in the demand for sheep products could remain quite close to likely potential increases in supply.' This would indicate a potentially growing market for small ruminant products.

Karakul used to be an important export commodity, and was considered a highly lucrative business. Nowadays, the karakul sheep are used mostly for meat production and not for their skin or wool. No market assessment or feasibility study has been done on the potential to revive this market.

Cashmere was widely traded in Afghanistan in the past, and significant improvements in cashmere production could still be obtained through improved combing techniques, controlling internal and external parasites. The current international marketability of cashmere will need to be assessed, to determine the profitability of this market.

Hides and skins are being transported to Pakistan, where they are processed and the processed or half-processed product is being sent back to Afghanistan. No feasibility studies or market assessments have been done on adding value to the raw product in Afghanistan.

Sheep intestines used to be exported for the sausage industry. The author has no information on whether this is still occurring, or whether there would still be a market for these products.

A livestock marketing study has been conducted recently, with the support of Mercy Corps, and the report is expected soon.

Livestock products used to be an important contributor to Afghanistan's exports. Now Afghanistan is an importer of meat.

The production of karakul and cashmere has collapsed due to the effects of war and drought. There is currently no information available on the potential and profitability of reviving these specialized production systems.

There are indications that the market for meat, in particular from small ruminants, is growing. However, modern slaughter facilities and quality control is currently not present.

## **F. Alternative income generation**

In chapter 4 it is described how even in 'normal years' only the richest pastoralists manage to subsist fully on livestock production. Other income generating strategies contribute to the household income, such as planting and harvesting (agricultural labour), shepherding of animals, trade in livestock or other products, selling of dung, selling of natural resources (firewood, stones). In times of hardship, there is an increasing shift towards casual labour; such as brick making, working in construction, and any other labour opportunities available in the main bazaars.

The NRVA data of 2005 may produce interesting information on the ratio of livestock related income versus non-livestock related income for the pastoralists. The sample size of the kuchi population included in the NRVA 2003 was too small to allow for any conclusions to be drawn.

AREU may be able to include some pastoralist households in their Opium, Livestock and Water Research program, for which the methodology is currently under development. This will provide very interesting information, in which seasonal and annual fluctuations in income patterns can be detected.

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<sup>48</sup> Chabot, P. personal communication.

Anecdotal information and interviews held by the author in recent years shows that high numbers of pastoralist men choose to leave the household behind in a pastoralist area to search for casual labour opportunities. They may also take their entire family with them to the main centres, which effectively make them 'drop out' of pastoralism. In the latter case, they may set up camp outside the city, and thus effectively become IDPs on the outskirts of the towns, and eventually merge into the city's population and pool of casual labourers. During the drought years, many of these could be found for instance around Kandahar city.

There are two problems associated with this income generating strategy; 1) the fact that the family splits and the labour is withdrawn from the household in the kuchi area (with its implications for the efficiency of herding and livestock production, social obligations and security!), and 2) the fact that pastoralists generally have very low skill levels, and lack a comparative advantage for obtaining employment (maybe with the exception of work in the livestock markets).

During the years of drought and war (and border closures) many 'kuchi' have (semi-) settled and diversified their economy or completely shifted their livelihood. No doubt many of these 'kuchi' have been very successful, as the presence of many 'kuchi' businessmen in Kabul and other cities shows. However, many of these are still struggling to make a living and are the real destitute kuchi (former pastoralists). They do not always live in 'kuchi areas' anymore, and are therefore difficult to identify and target. Effectively they have merged with other large groups of the landless poor.

For those that still live in their 'kuchi areas', another problem is widespread; that of **land tenure insecurity**, as is explained in more detail in chapter 5 –D. Often, 'kuchi' that settle tend to do so in their winter areas, where they have customary claims to the land. However, these claims are not always crystal clear and may be disputed. What is often seen is that as long as the kuchi are camping on these lands seasonally, they are allowed, but they will not be permitted to remain there for the full year by the local residents. They are not allowed to set up permanent structures or construct water sources.

Land insecurity is an issue that requires to be dealt with to make any investments in a sustainable livelihood become truly effective.

With increasing economic stress on the household, men find themselves forced to actively search for casual labour in the main markets.

They constitute a group of migrant labourers, leaving the families behind in the 'kuchi areas'.

Skill levels, other than livestock keeping, are low and unskilled labour is all they can obtain.

## 7. CURRENT AND DEVELOPING PROGRAMS AND POLICIES

In the different spheres this report focuses on, animal health and animal production and rangeland, a lot of work has been done and is on-going in policy and strategy development, coordination and program implementation. Opportunities can be identified on increasing the extent to which the pastoralists are included.

A Policy and Strategy Framework for the Rehabilitation and Development of the Agricultural and Natural Resources Sector of Afghanistan was ratified by the President and the Afghan Cabinet in June 2004. Currently, the '**Agricultural Sector priorities for Alternative Livelihoods 1383-1384**' framework is under development through a coordinated process with commitment from donors and other stakeholders, and it shall be presented to the Cabinet by September 2005.

### A. Rangeland management

The **National Development Framework** states that: '*The goal in natural resource management is to preserve, invest in and exploit in a sustainable manner the natural resources of the country to improve the standard of living of the poor*'.

On pastoralism and rangeland it states that: '*The goal here is to improve the living standards of the pastoralists, to ensure that the pastures of the country are used in a sustainable manner, and to promote cooperation between the pastoralists and the settled populations. Access to pastures and the rich of way for nomads through the lands of settled populations are areas of recurrent disputes that require solutions. In consultation with communities and other stakeholders, the government will undertake a systematic review of the pastures and rangeland of the country to arrive at a policy of sustainable use of these resources.*

The **Policy and Strategy Framework for the Rehabilitation and Development of Agriculture and Natural Resource sector of Afghanistan** of February 2004 (approved by cabinet), mentions as a strategic objective the need to protect rangeland and other natural resources. The key issue is the deployment of more efficient utilization and management of rangeland and fodder provision regimes for livestock. There is a need for classification and mapping of rangeland and pasture by agro-ecological zones.

The department of forestry and range land in the Ministry of Agriculture and Animal Husbandry is the government body responsible for range land. At the current time, the initial focus and the currently on-going projects are mostly in the field of forestry; capacity building for the sector, forest rehabilitation and community based resource management.

However, the developing '**Agricultural Sector priorities for Alternative Livelihoods 1383-1384**' framework proposes a rangeland management program and a survey of the rangeland areas as a short-term intervention to be conducted.

In addition to this policy and strategic framework, a **Policy and Strategy for the Forestry and Range management sub-sector**<sup>49</sup> has been developed, with support from the ADB. At the time of writing of this report, this strategy document was endorsed by the MAAHF, awaiting endorsement by the cabinet.

This policy specifies that a community based management of forests, pastures and wildlife resources shall be operational in the whole of rural Afghanistan over the coming 25 years. Emphasis of the programme shall be on 1) the establishment of a land users' rights contract system, 2) land suitability assessment and planning at provincial level, 3) development among communities of organisational skills and capacities to interface with the private sector, and 4)

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<sup>49</sup> Robin James, 2004.

development among communities of technical skills in forestry, range management, wildlife management and other land management techniques.

It proposes to start this exercise in few selected areas, learn from experiences gained and adjust the methodology when required. Even though the policy describes a program for Integrated Natural Resource Management, it is not a proposal and there is currently no funding for this exercise.

The **Green Afghanistan Initiative (GAIN)** is a joint program between several UN agencies to address environmental issues in Afghanistan. The program was established after rehabilitation and protection of the environment was made a national priority by the government.

Alongside its other components, GAIN aims to address range land rehabilitation through:

- seed multiplication / nursery development
- grass seed sowing and desert stabilization projects
- a range land management programme.

The range land management programme would work through extension workers who will assist the communities to manage their grazing areas better. The pastoralists are not mentioned specifically in this program, and there is no component on conflict resolution or attempts to work with different communities in JOINT Natural Resource Management.

Currently there is around US\$ 2.7 million available for projects, but so far all projects have been focused on forestry, river bank protection, terracing and land slide stabilization. No projects regarding rangeland rehabilitation have so far been proposed within the GAIN program.

**CADG conducted a range land assessment in the Registan** with recommendations for further research, rangeland rehabilitation and pastoralist development. A proposal for rangeland rehabilitation has been prepared, but has not obtained any funding yet.

Access to rangeland can also be constrained by lack of water for humans and/or livestock. The Registan presents an interesting case, where the initial reason for abandoning the area was lack of pasture (and water in the nawors; water pans), but return to these areas is impeded by the silting up of the nawors and the lack of maintenance of the deep wells.

A similar case has been described by Cossins<sup>50</sup>: the major initial problems facing pastoralists who were returning to the summer grazing areas was the deterioration of surface ponds which captured and stored winter snow and which were an essential source of water in an area where there were few other water sources.

**In Registan, Cordaid and VARA developed a program of 'phased return' to Registan**, which was initiated around a year ago. They established community shuras, responsible for the various components of the program. Rehabilitation of the water sources in specific areas of Registan, through food for work in collaboration with WFP,

Within the field of Forestry and Rangeland, the initial focus of interventions is in forestry rehabilitation and management.

Rangeland issues are viewed as being important to address, but practically there is little progress, with the exception of the Registan.

In the Registan a water and pasture assessment has been carried out which has led to a rehabilitation of water sources and a phased return of pastoralists to the Registan.

On-going policy development and research carried out all points in the direction of 'Community Based Natural Resource Management' as the most appropriate way forward to addressing range land management and conflict resolution.

A pasture based local negotiation process on mechanisms and conditions of use of the pasture land is promoted, through a learning-by-doing approach. A legal framework will be required to arrive at the desired level of legitimacy of the Range Management Plans thus obtained.

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<sup>50</sup> Cossins, 1994.

and restocking of pastoralist families with 15 sheep in an attempt to increase the herd size initially through zero-grazing and limited seasonal grazing in Registan. Specific rangeland rehabilitation activities are currently not carried out under this program, other than some spontaneous planting of trees around the nawors.

Concluding it can be said that no further rangeland assessments or studies are in the pipeline, even though the need is recognized by MAAHF. No other rangeland rehabilitation or management programs are currently being developed or implemented.

**Liz Alden Wily has conducted extensive research in the field of land tenure**, and has described clearly the myriad of problems associated with pasture lands. She states that **new Afghan rural policy and strategy should begin with the pastures**. She identifies three major areas for developing and improving land policy in Afghanistan; 1) clear legal and practical support for common property as private, group-owned estates, 2) public land needs to be redefined as nationally-owned property, and 3) the need for an overhaul of current land administration systems.

She recommends adopting a learning-by-doing approach; and describes in detail a localized pasture-based procedure in which the actual users of the pasture arrive at agreed norms over the use of the pasture. This would include the definition of the boundaries between farming and pastoral use on the ground, the rules through which access will be implemented, regulated, monitored and disputes in the future mediated. Land use plans for specific pastures will emerge, which will be registered and for the first basis of a new localized land administration<sup>51</sup>.

This process could be strengthened through incorporating a more technical assessment of the status of the range land, and recommendations towards more effective rangeland use could be made. This could include small-scale community based programs for range land rehabilitation (from allowing areas to lie fallow, development of water pans, to rainwater harvesting and localized reseeding with locally grown fodder seeds).

All experts seem to agree on the importance of community based natural resource management, and the need to develop a legal framework to reflect this. The need to start these community based resource programs on a small-scale through piloting is another point of agreement. In terms of the roles of the different actors involved and the exact implementation strategy, some differences may occur between the various experts. However, the vision behind it is alike.

## **B. Animal Health**

Livestock health and production is not surfacing clearly in the **National Development Framework**, it is only mentioned on the sideline: 'The government will launch a major program to assist pastoralists and settled populations to obtain access to suitable livestock and promote the development of a service industry geared to the needs of the pastoralists'.

UNDP/OPS and FAO established 225 **Veterinary Field Units** (VFUs) throughout the country from 1988 onwards. FAO took on the management of these VFUs and supported them until the time the policy of full cost recovery was implemented abruptly. Many of the VFUs ceased to function effectively, which led to the adoption of VFUs by different NGOs.

DCA, the Dutch Committee for Afghanistan has a long presence in Afghanistan, from 1989 when they established a training institute for paravets in Peshawar. Paravets are mid-level veterinarians which can provide basic clinical services to clients.

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<sup>51</sup> Alden Wily, 2004.

The adoption of VFUs by NGOs led to a variety of approaches and strategies in supporting the VFUs, and the need for standardization arose. Currently, a process is on-going to further standardize the support strategies and clarify the roles of the private and public sector.

The **Policy and Strategy Framework for the Rehabilitation and Development of Agriculture and Natural Resource sector of Afghanistan** states that veterinary services and animal health will be essential services for both settled and nomadic herders. Immediate attention is required to prevent further loss of livestock due to diseases, while long-term development interventions will be necessary to prevent losses of greater magnitude in the future and provides sufficient degree of safety-net in times of droughts, epidemic disease and similar disasters.

A **Draft Policy Framework for the Livestock sub-sector** has been developed in the Ministry of Agriculture and Animal Husbandry.

**The goal is to move towards full privatization of the Veterinary Field Units**, with full cost recovery plus the payment of a service fee to the veterinary staff. All clinical services will thus be delivered by the private sector of trained veterinarians and paravets. Supply of drugs and private good vaccines, artificial insemination services, provision of feed and grade animals and all production activities will be left to the private sector.

**The functions of the Department of Veterinary Services will be policy, regulatory, monitoring and evaluation, provision of selected inputs and services, and fostering the establishment of partnerships.** Specific roles of the Department of Veterinary Services fall in the spheres of:

- *Prevention and control of contagious diseases*; strategies will be developed to determine the status of a disease as 'public' or 'private', and the approach to be used.
- *Control of zoonotic diseases*; through disease investigation and diagnosis and public awareness.
- *Veterinary Public Hygiene*; through the implementation of quality and safety control of livestock products.
- *Specific animal husbandry policies and strategies*; through the implementation of extension services and development programmes in the field of genetic improvement, nutrition, feed and animal husbandry practices.

There is no specific mention of the pastoralists in the draft strategic framework, but without doubt they will need to be considered as an important group.

**Currently there are a number of organizations supporting Veterinary Field Units in the country.** Some old VFUs may still be operational in spite of lack of support, but this will be very limited. DCA, under its RAMP program works with its partners Pamir Reconstruction Bureau (PRB) and AVA in 31 provinces and run VFUs in 313 locations. Madera currently supports 50 VFUs in Nuristan, Laghman and Kunar. Mercy Corps has received funding from the EU, and its program will support 15 VFUs in the south.

Both in the context of addressing animal health issues amongst the herds, as in prevention and control of transmittable diseases, large programs are on-going.

Veterinary Field Units are currently being supported by various organizations, including DCA, AVA, MC, and Madera, but the overall consensus is that these VFUs shall move towards full privatization.

The role of the government will move away from service delivery and towards the more public roles of disease control, and monitoring.

Prevention and control of transmittable diseases is supported through a large regional programme by FAO, which aims at establishing regional mechanisms for disease control.

The pastoralists are considered an important factor in the spread of disease due to their migratory patterns.

The government (department of Veterinary Services) also still support 144 VFUs; their staff obtains a regular government salary. Other organizations that are involved in animal health, and support VFUs are OXFAM, AKDN, Afghanaid, CoAR, CARE, and BRAC.

A number of these organizations also have the **training of Basic Veterinary Workers** in their portfolio (for instance VARA), other organizations have done so in the past (refer chapter 6-C for the main lessons learnt).

In the context of **prevention and control of transmittable diseases**, the pastoralists have a very important role to play due to their migratory behaviour. A FAO proposal for 'emergency prevention of FMD outbreak' is currently awaiting funding; they recognize the pastoralists as being one of the two main sources of infection of FMD, and their strategy includes targeted vaccination of the pastoralists' herds in the project areas (Nangarhar, Kunar, Laghman and possibly Paktya).

In addition to its direct benefits, the project also aims at providing information and stimulating longer term strategy development in animal health production. As such, it will collaborate closely with the regional program '**Controlling Transboundary Animal Diseases [TAD] in Central Asian Countries**, which aims at 1) better understanding the impact of FMD and other major livestock diseases, 2) to establish communication between the countries for collaborative disease control, and 3) to establish national disease investigation, control and contingency planning for TADs. The countries involved are Afghanistan, Pakistan, Tajikistan, Uzbekistan, and Turkmenistan.

### C. Animal Husbandry

The **Policy and Strategy Framework for the Rehabilitation and Development of Agriculture and Natural Resource sector of Afghanistan** states that the government will ensure private sector involvement in breeding and multiplication of improved breeds and promoting the commercialisation of dairy, poultry, sericulture and apiculture farming and marketing.

The **draft policy framework for the livestock sub-sector** aims at implementing specific animal husbandry policies and strategies, through genetic improvement, improved feed and nutrition, and human development.

The suggested activities most relevant to the pastoralists are:

- genetic improvement:
  - o preservation and selection of breeds known for their meat production qualities
  - o the selection of dual purpose goats that could provide both improved carcass for meat and increased milk production
  - o the protection and selection of breeds of special interest (karakul)
- increase "backyard" poultry production
- feed and nutrition:
  - o better access and management of natural pasture, development of artificial fodder, encouragement of the use of agricultural by-products for animal feed, and feed production for intensive production.
  - o Specifically for the traditional livestock practices"
    - Advice on hygiene of animal shelter, watering points and other premises
    - Improve knowledge of market conditions and access to markets

Currently, the focus in on-going programs is mostly on poultry production and to some extent dairy production (mostly focusing on cattle). None of these programs target the pastoralists.

In the 'Agricultural Sector priorities for Alternative Livelihoods 1383-1384', certain short-term interventions are proposed, which would affect the pastoralists, most notably:

- extension program of optimum use of the feed resource base
- feed shortage alert system developed
- study and assessment of the current situation regarding the processing and marketing structures for livestock products.

However, practically none of these projects are likely to take off very soon, since no funding has been secured for these.

Livestock production and animal husbandry do not receive adequate attention, in particular for the more extensive livestock production systems.

The focus currently is predominantly on poultry production and dairy processing.

Extension on animal nutrition, hygiene and breeding, and increasing livestock fodder production could improve the robustness of the livestock sector considerably.

In practical terms, there currently is a **lack of focus on animal husbandry**, possibly with the exception of (cow) dairy production and poultry. Particularly when comparing the investment in animal health care with the investments made or planned in increasing livestock production through improved animal husbandry, the discrepancy becomes clear<sup>52</sup>.

The World Bank has expressed interest in engaging in the livestock sector, and planned initially on focussing on animal health and rangeland management frameworks. Through consultation with other stakeholders the need became apparent to focus more on animal husbandry techniques, increased forage production, and increased capacity for export of wool and cashmere. The World Bank representative has acknowledged this and stated that it will be taken into consideration. Funding for this World Bank support to the livestock is currently under approval, and will be elaborated further in the near future.

In terms of **increasing fodder availability**, developments in other agricultural spheres can contribute through increased use of horticultural and cereal processing by-products and the development of mineral feed supplements and blood meal additives in conjunction with improved slaughter facilities.

The planned rehabilitation<sup>53</sup> of the sugar processing factory in Baghlan will lead to increased molasses production which could be used as animal feed supplement.

Under USAID's Alternative Livelihood Program in the south (implemented by Chemonics), the pressing of seeds will be encouraged through the establishment of district centres with an oilseed press and feed mill, which will lead to increased seed cake production and mixed feed.

#### D. Market development for livestock and livestock products

The development of an **industry for meat and livestock products** such as wool, cashmere and hides and skins does not get a lot of attention at the moment. The National Development Framework states that: *'The government will launch a major program to assist pastoralists and settled populations to obtain access to suitable livestock and promote the development of a service industry geared to the needs of the pastoralists. Pastoralists have traditionally supplied the rural and urban populations with meat. In the 1970s, a program for exporting meat was also initiated. The government will launch a program to promote the development of a meat industry that would provide quality products to consumers in Afghanistan and abroad'*.

<sup>52</sup> Around 28 million \$US on animal health and vaccine production, around 15,5 million on animal production (with 11.2 million for dairy production and 3.6 million for poultry production, therefore very little remaining for small ruminants). From Khan, Worldbank.

<sup>53</sup> By FAO

No real activities have been carried out in this sphere.

A number of activities could be carried out to support the livestock industry. Some of these activities are government functions, whereas others could be more efficiently carried out through the private sector.

The government could promote research on the potential of upgrading local breeds through breeding strategies, improve marketing information flow, and design mechanisms to improve quality and safety control of livestock products in line with international standards

Private sector investment could take place in the development of modern slaughter facilities, tanneries, karakul and cashmere production centres, milk collection and processing plants.

Very little information is available on the opportunities and constraints of the national, regional and international market for livestock and livestock products.

Feasibility studies are currently not being planned, other than a recently conducted livestock marketing study (yet unpublished).

## E. Alternative income generation

**Pastoralists have been included in vocational training programs in the IDP camps.** Most notably VARA in the Panjway and Maiwand camps has trained the Registan pastoralists in masonry, carpentry, tailoring, and embroidery.

The non-Registan pastoralists in the southern camps have to some extent been included in InterSoos vocational training programs. They estimate that around 30-40% of their trainees are former pastoralists. Their experience shows that most of these men are not very keen on being trained in new skills, since their focus is on livestock. However, the courses they are most interested in are transportation-related; motorbike and bicycle repair. The women are more open-minded and less conservative than other women, and are therefore easier to enrol in training on tailoring and embroidery<sup>54</sup>.

However, none of these programs have moved onward from here, and have progressed towards establishing a new livelihood based on the new skills. No job referral, business skills training, monitoring of performance has taken place, which makes it difficult to assess the impact of these training programs at this point.

UNHCR, in its profiling exercise conducted in April 2004, included data on types of skills possessed and types of vocational training preferred. This information is in the process of being analyzed and will yield interesting results.

Outside the IDP camps, no attention has been given to vocational training of the pastoralists, in spite of the fact that there may be a great need for it, considering the increased reliance on casual labour. Participatory research needs to be carried out to determine which types of vocations the pastoralists would be interested in (both male and female), and which ones can be combined with pastoralism.

Cordaid / VARA have experimented with poultry and rabbits as additional income (or food source) for the Registan pastoralists in the camp. This has been met with enthusiasm, and many of the pastoralist women in the camps are now keeping poultry or rabbits. This could be an opportunity for the non-Registan pastoralists as well; in interviews held by the author an enthusiastic reaction was also often evoked when mention poultry production. Some additional attention will need to be given to tending practices and housing in a pastoralist (tent) environment.

FAO, and also other organizations, have established small-scale 'family' or 'backyard' poultry farms. There is a need to share information and lessons learnt, and standardize procedures to avoid a duplication of effort. It will be possible to tap into this process, and develop poultry programs for pastoralists.

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<sup>54</sup> personal communication F. Mangia, InterSos Kandahar.

## 8. ON THE FUTURE OF PASTORALISM

In the introduction and the justification for a Pastoralist Support Strategy, a number of important points were made, which relate to the question of the 'future of pastoralism' in Afghanistan.

It is clear that there is an economic rationale to pastoralism; livestock and livestock production made a significant contribution to the GDP and to exports in the past. Currently, livestock for slaughter is being imported, whereas in the past Afghanistan was an important exporter of livestock products. With increasing competition for resources, and a trend towards intensification of agricultural production, the marginal lands need to be put to optimal use. When considering that between 70 to 85% of the total land area in Afghanistan is used for grazing, one can see the importance of this consideration.

Pastoralism is not a traditional and backward system, as it is often perceived to be. On the contrary, it is a highly dynamic and opportunistic system which revolves around the management of risk and employing opportunistic strategies. There is no reason why pastoralism can not be modernized, or adapted to modern circumstances, and in fact these mechanisms are already taking place; for instance through trucking of the animals from the winter to the summer areas.

Pastoralists can, under the right conditions, play an important role in the ecological maintenance of the pasture areas, if appropriate management systems are put in place. Traditional systems function to some extent, and have functioned in the past, but the new socio-political realities require new strategies to prevent both over-grazing and under-grazing of the pastures, and reduce conflict over these pastures.

The question of environmental sustainability of pastoralism in the current circumstances brings us to the very difficult question of how many livestock and therefore how many pastoralists this country can support, e.g. the question of carrying capacity. This is a concept which is heavily disputed amongst academics, and the usefulness of the term, particularly in nomadic production systems has been often questioned.

In any case, in Afghanistan, there is no sufficient information available at this point to draw conclusions on the number of animals it can support. Not only because important information about actual potential dry matter off-take of the rangelands is not available or not reliable enough, but also because the range lands are only one component of the feed source of the animals. Supplementary feeding is common practice, as well as grazing the agricultural fields after harvesting. These are not easily quantifiable but play a major role in animal feeding practices, and can not be ignored.

Another factor can also not be ignored when discussing the use of the range lands: climate change<sup>55</sup>. Pastoralists have over the centuries established mechanisms to cope with unreliable rainfall and drought, through risk management practices. Climate change however, will most likely exacerbate these dynamics as increasing temperatures will bring drier conditions and shorter, more intense rainfall events.

Dealing with these issues as they arrive requires systems that are able to monitor the rangelands, alert decision makers of changes occurring, so that appropriate action can be taken. This calls for the establishment of improved resource management, because the current traditional systems alone which are already under dispute, can not cope with this alone.

All this still leaves us with the main question; 'to what extent can we supported pastoralism, or shall we focus our energies on supporting them to find 'alternative livelihoods', to economically integrate into the mainstream economy.

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<sup>55</sup> IISD et al, 2003.

Though there are a lot of reasons to support pastoralism, it must be clearly recognized that not all 'kuchi' can become fully nomadic again, nor should they be forced to do so. Even if no hard conclusions can be drawn, a simple reasoning shows that the number of people that pastoralism supported in the pre-war years when conditions were relatively good for the pastoralists can probably not be exceeded to far without destroying ecological balances. Especially when recognizing that not all pastures once under pastoralist use can be reclaimed by the pastoralists, and that pastures have been encroached upon. Increased reliance on supplementary feeding, improved pasture management practices, and improved animal husbandry techniques can prove effective to some extent, but one can not expect the lands to support double the number of pastoralists.

So in addition to the much needed support to pastoralism, opportunities must be availed to those who want to divert away from pastoralism; either to diversify the income base within the household so that the remaining members can continue their livestock production, or as a total shift away from pastoralism.

Already one can see a shift away from pure pastoralism to a more diversified income base. This process was already noted by Dupree<sup>56</sup> as early as 1970. The Ghilzai Pashtun 'kuchi' which were given land in the north did not initially intend to settle on these lands, but kept them as a second resource. However, with time many of them did settle. But also the kuchi in other areas increasingly moved towards a semi-nomadic existence. A part of the family would remain behind in the winter area whereas the other part would migrate with the animals.

The overall number of Kuchi assessed by NMAK is around 2.4 million, of which around 1.0 million is currently not migrating. This clearly shows the trend towards (partial) settlement. If one takes the example of Nangarhar province, one can see that of the 151 communities by the NMAK 42 communities are fully migratory, 96 are semi-migratory, and 13 are settled<sup>57</sup>. The most fully nomadic pastoralists can be found in the south; both the Registan pastoralists and the long-range pastoralists that use the central highlands as their summer grazing areas.

A high number of IDPs in the camps are of pastoralist origin, and with increased return of the other IDPs to their area of origin, this proportion is ever rising. In the camps, they have obtained access to education and health care and to some extent to vocational training. These are often considered to be factors which would cause these (former) pastoralists to not want to return to the pastoralist way of life. This is probably true to a large extent, but two factors need to be considered when drawing conclusions; 1) the IDPs have very well learnt how to respond to questions asked in order to maximize the potential outcome for them. Since there is always hope that agricultural land will be distributed to the IDPs in the camps, the most profitable answer to

There is a strong economic rationale for the nomadic livestock production system, as employed by the pastoralists. Only through a migratory system can the marginal lands of Afghanistan be put to economic use.

In the current situation of increased competition for land, and the need to increase national food production, these marginal lands need to be put to optimal use.

At the same time, one can see a tendency of the pastoralists to become more diversified. This is an important risk-mitigation strategy, which needs to be supported.

With increasing exposure to education and health care, 'pastoralism' will become more of a specialization in an otherwise more diversified economy.

This specialization however is important for Afghanistan, and needs to be supported. It can adapt to the modern circumstances, as it has always done in the past.

<sup>56</sup> Dupree, 1980, p. 179.

<sup>57</sup> In this case, migratory is defined as less than 5% of the households migrating, semi-migratory as 6-95% not migrating, and settled as 100% not migrating.

give is probably that they would want to settle. But every pastoralist, when offered land, would most definitely take it. Land ownership has been referred to as 'the golden peg of pastoralism'. 2) the (former) pastoralists in the IDP camps are not representative of all the pastoralists in Afghanistan, purely due to the fact that they have found their way to the camps and have spent time there.

Having said this, it is important to emphasize that the pastoralists nationwide have expressed a strong desire for education; '*only through education will we be able to deal with the problems we are now facing in the future, our children will not suffer like we did*'. Depending on the way an education system will be set up (boarding schools, mobile schools, or distance education) this will to a stronger or lesser degree cause a draw away from pastoralism, as a natural phenomenon.

Increasingly, and particularly during times of drought, one can find that the men of the household leave the kuchi area to search for employment opportunities. These attempts are not always successful, due to lack of skills, but as a coping strategy it has anchored itself in the pastoralist communities. Trade has always been a major contributor to the pastoralist income, and even though the comparative advantage of pastoralists in long distance trade has been reduced, pastoralists still have a comparative advantage in livestock trade and other petty trade. This is also used as a coping strategy – increasingly becoming a 'normal livelihood strategy'.

This shows a trend towards a decreasingly migratory lifestyle of the pastoralists. But it also a sign of how a diversification of the income base makes the pastoralists less vulnerable to drought. Additional income sources to support the family through hard times, provides them with the opportunity to continue their livestock production. So it is exactly the diversification of their income which allows them to use the marginal areas and raise the large numbers of animals that once contributed so much to the Afghan economy.

Concluding it can be said that there is a natural tendency towards increased settlement and a more diversified income base. Improved education and health care can only further entrench this trend. However, there are sufficient reasons to promote pastoralism as a 'specialism'; to encourage the extensive livestock production system and strengthen its risk management mechanisms through improved access to pastures, better pasture monitoring and management, and improved animal production. Natural processes shall take their course, which will go hand in hand with natural decline in pasture land available.

## **9. POTENTIAL MECHANISMS TO STRENGTHEN PASTORALISM**

It must be recognized at this stage that the overall strategy development needs to be guided by an increased understanding on:

- the market chain and marketing opportunities for livestock products (cashmere, karakul, wool (carpets and rugs), hides and skins, milk products).
- the economic profitability of different mechanisms to increase fodder supply.

This information will further guide the strategy development and implementation strategies.

The aim of this paper is to stimulate discussion among national and international experts, and the pastoralists themselves on the technical, environmental, and socio-cultural soundness of these recommendations.

A Conference will be held in Kabul in mid-November, in which most of the topics covered in this document will be discussed. The recommendations from this conference will lead towards the formulation of a Pastoralist Support Strategy, with clear objectives, outputs and activities.

Some of the key issues for discussion and possible recommendations for a way forward are presented below:

### **A. INSTITUTIONAL STRENGTHENING**

#### **1. The capacity of the Ministry of Frontiers and Tribal Affairs for mainstreaming pastoralists' interests needs to be strengthened**

- Building the capacity of the Ministry of Frontiers and Tribal Affairs will ensure the mainstreaming of pastoralist interests in national programmes and policy making. Due to the highly political nature of the topic, care must be taken that a more developmental approach is taken, in line with international best practice, and not a political one.

#### **2. Development of the capacity of the national and provincial Kuchi shuras**

- The Kuchi Shura can be trained in the more technical aspects of pastoralism, to make them aware of international best practices, thus enabling them to contribute in a meaningful way to consultative processes regarding the Pastoralist Support Strategy.

### **B. RANGELAND**

#### **1. Improving rangeland management**

Rangeland management planning needs to be based upon two components: 1) the technical status of the rangeland and the potential for improvement, and 2) negotiated access to the resources. In one localized rangeland area, these two processes shall be conducted jointly to complement and strengthen each other. A localized geographical focus needs to be maintained, to allow for a comprehensive approach to range management. The geographical focus can be enlarged with time, and lessons learnt can be incorporated.

##### ***Technical status***

- Conduct a *rangeland assessment* with the objective to determine the current status of the vegetation; the extent to which the rangelands are degraded and if so, whether this degradation is reversible or irreversible.

- Determine potential mechanisms for *pasture rehabilitation or improvement* which can be carried out in a context of an extensive production system (e.g. small-scale and community based; for instance the establishment of small native seed banks which can be managed locally and used for re-seeding of those areas where the seed bank has been depleted, or the application of rainwater harvesting techniques to improve water retention).
- Research the potential for (some of the) range lands to support *dry land farming*; with specific focus on fodder species which can be grown in the winter areas (through rainwater harvesting?).
- Develop a *Pasture Monitoring and Early Warning system*, preferably through a combination of satellite imagery and a ground-based indicator system built on indigenous knowledge. This could be broadened to include a livestock component (f.i. livestock health and nutrition, terms of trade). Monitoring information stemming from this system can feed into a larger overall 'Drought Management Strategy'.

### **Access to the resources**

- *Local negotiation processes over access to the resources* to define users' rights and conditions of use over the natural resources are required. This will include a component of conflict resolution and dispute handling, which shall be done at grass-roots level in a participatory, community-based procedure through which the actual users of the pasture arrive at agreed norms over the use of the pasture. This would include the definition of the boundaries between farming and pastoral use on the ground, the rules through which access will be implemented, regulated, monitored and disputes in the future mediated. Land use plans for specific pastures will emerge, which will be registered and for the first basis of a new localized land administration.
- This process shall be *strengthened through incorporating a more technical assessment* as described above. Recommendations towards more effective rangeland use could be made, which can act as an incentive to both the resident communities and the migratory communities to engage in the negotiations. These could include small-scale community based programs for range land rehabilitation (from allowing areas to lie fallow, development of water pans, to rainwater harvesting and localized reseeding with locally grown fodder seeds).
- There is a need to advocate for the development of a *legislative framework at national, provincial and district level* which legitimizes and endorses community agreements on Joint Community based Natural Resource Management. The Ministry of Agriculture and the Ministry of Justice need to streamline their approaches regarding allocation of user's rights to communities.

## **2. Development of a Drought Management Strategy and planning for response**

- A Drought Management Strategy requires strong collaboration between different Ministries and departments within ministries, to arrive at a well coordinated cross-ministerial approach. The appropriate *institutional arrangements* need to be determined the *capacity of the relevant institutions* built to enable them to develop a 'Drought Management Strategy'. This drought management strategy will monitor the status of the rangelands and water sources and the status of the livestock production associated with it. Through collaboration between the local communities and the government the response will be determined; drought management plans will be created, with specific plans of action at different stages of the drought cycle.

- Link the Drought Management Strategy to the Pasture and Livestock Monitoring system described above. The response mechanisms need to be designed in close collaboration with the pastoralists themselves, but could include components like emergency fodder supply to the core reproductive herd, when rainfall falls under a pre-determined level; provision of drinking water to remote areas when wells dry up, emergency vaccinations in case of disease outbreak, marketing support, and in the future more elaborate systems like livestock insurance could be explored.

## **C. ANIMAL HEALTH**

### **1. Improve linkages with the existing veterinary service delivery practice and extension**

- *Basic Veterinary Workers or paravets* (when minimum education requirements can be met) from the pastoralist community can be trained. If paravets have been trained, they can be supported to establish themselves in Veterinary Field Units in the pastoralists' winter- and summer areas. The Basic Veterinary Workers shall need to be based in their community and strong linkages to the VFUs need to be established. Both the training of male and female BVWs shall be considered, since they play different roles in livestock keeping.
- *Either fixed or mobile Veterinary Field Units* can be established in remote areas where the pastoralists stay. Particularly in the summer, the pastoralists tend to stay in remote areas where no VFU is established and the pastoralists have only a seasonal presence. New paravets or DVMs can be established in those VFUs, or existing VFU staff in the vicinity can be supported (with incentives) to establish a secondary clinic or a mobile clinic to serve these pastoralists.

### **2. Improve the inclusion of pastoralists in Disease Control and Prevention**

- *The inclusion of Kuchi in the disease control and prevention strategy of the Ministry of Agriculture* needs to be ensured. Linkages with Kuchi paravets and Basic Veterinary Workers will be essential, and awareness needs to be created on the roles and responsibilities of trained paravets and Basic Veterinary Workers for disease control among the pastoralists.

## **D. ANIMAL PRODUCTION AND HUSBANDRY**

### **1. Credit facilities / storage facilities for livestock fodder**

- The purchase of supplementary feed at low cost at the time of harvesting can be promoted. This will reduce supplementary feed costs. Supplementary feed storage facilities can be created in the winter areas for supplementary feed, possibly as a feed bank linked to a system of financial services. These systems can be linked into the Drought Management Strategy discussed above.

### **2. Extend extension services to pastoralists**

- Extension to the pastoralists could include *improved hygiene, and improved livestock nutrition* through promoting the use of urea treated straw, locally produced mixed feeds or other supplements. Demonstration of the benefits of supplementary feeding and fattening of lambs will lead to increased demand for fodder supply, which will again boost livestock feed production. Trained Basic Veterinary Workers could play an important role in these extension services.

- *Participatory research into specific animal husbandry techniques* practiced by the pastoralists needs to be conducted. The components of the extension curriculum need to be based upon actual practices which can be improved upon; the indigenous knowledge and current animal husbandry practices need to be the starting point.
- Potentially the productivity of the local breeds can be improved upon through *selective breeding systems* (open-nucleus, etc). This will need to be based upon a better understanding of local breeds and their characteristics.

### **3. Improve livestock feed availability**

- There is a need for applied *research into fodder varieties* that can be farmed under dryland conditions, without causing degradation to the soil.
- The availability of livestock feed is a major constraint for increasing livestock production. The potential for increasing fodder supply through 1) fodder production on irrigated fields, 2) mixed horticulture and fodder production systems, and 3) through *agricultural by-products processing* (to produce seed cake, molasses blocks, etc).
- There is a need to identify a *source for a food supplement* for improved utilization of the dry matter intake, which is or can be locally produced, or made readily available (urea treated straw?). Conduct field trials and determine its potential for raising productivity. Determine its economic profitability in field conditions (ranging from very extensive to relatively intensive livestock production).
- Opportunities need to be determined for the local production of low-cost mixed feeds, using primarily low-cost, locally available food sources. The usability needs to be tested in field-trials, and the economic profitability of this input in field conditions (ranging from very extensive to relatively intensive livestock production) needs to be assessed.
- Bone meal mineral supplements could be produced, alongside slaughter house facilities, as a source of mineral additives.
- Based on the recommendations of the above, *agri-business enterprise* can be encouraged that increases fodder production, and mixed feed production. This can be done through an agri-business approach, not necessarily with the pastoralists, but the pastoralists will benefit indirectly through increased supply of supplementary feed.

### **4. Promote the fattening of male lambs**

- Fattening of lambs can be carried out as a more entrepreneurial, high-input strategy, which moves away from the more traditional livestock keeping which is based upon low-input. Credit services can be made available to provide working capital (e.g. livestock feed and veterinary care). An economic assessment has to be made to determine the profitability of lamb fattening, recognizing the limiting factor of local fodder supply and the potential rise in input cost when livestock feed needs to be imported. Links can be created between the more extensive, highly migratory, traditional producers and the more settled, more intensive and more commercially minded. The traditional producers can act as suppliers of young male lambs to the more entrepreneurial for fattening.

## **E. MACRO-ECONOMIC REGENERATION**

### **1. Feasibility Studies and Market Assessments for livestock and livestock products**

- There is a need to determine opportunities and constraints in adding value to and marketing of meat and other livestock products, for instance wool, karakul, cashmere, handicrafts (rugs, carpets), hides and skins, and milk products.
- Opportunities for improving the traditional technologies for milk processing, wool spinning, and cashmere harvesting need to be determined, and mechanisms through which international quality standards can be met, and production can be increased.
- Potential markets (regional, national or international) need to be determined, as well as the mechanisms that need to be put in place to access these markets.
- An economic assessment of the economic profitability of lamb fattening is required, including the type and level of investment required to reach international hygiene and sanitation standards. Focus should initially be on import substitution, with a vision of potentially reaching the export market in the future.

### **2. Encourage private sector investment in the livestock and livestock products industry**

- Private investment could be used for instance for the development of modern slaughter facilities, tanneries, karakul and cashmere production centres, milk collection and processing plants. Mechanisms could be the creation of linkages with potential investors and institutions supporting private sector investment (AISA, CNFA, OFT group, Chamber of Commerce), provision of incentives to investors willing to invest, and provision of information from feasibility studies to potential investors.

## **10. POTENTIAL MECHANISMS FOR ALTERNATIVE INCOME GENERATION**

Former pastoralists that are unwilling or unable to return to a pastoralist way of life need to create opportunities for alternative income generation. Since they have strong ties to their pastoralist community members, they can act as a liaison between the migratory pastoralists and the markets. They have a comparative advantage in enterprise and activities related to the livestock sector.

### **A. Advocate for increased land security for (former) pastoralists in the Land Commission**

- This is a very important long-term goal that requires political will from a multitude of ministries (notably Ministry of Agriculture, Ministry of Justice and Ministry of Interior) and the parliament. The capacity for advocacy from the Ministry of Frontiers and Tribal Affairs needs to be increased to push for legal reform. The Ministry of Frontiers and Tribal Affairs must play an active role in Land Policy review initiatives.

### **B. Skills Development Centres for (former) pastoralists**

- Skills Development Centres can be set up at provincial level in the main provinces, to provide vocational training, financial services and business skills development. Market assessments on local demand for skills need to guide the vocational training programs. Linkages need to be created with the National Skills Development Program of MoLSA.

### **C. Lamb fattening as an entrepreneurial activity**

- This could be set linked to be financial services provided by the Skills Developments Centres. The above mentioned fattening of lambs as an entrepreneurial activity can be carried out by the 'former pastoralists'. The more traditionally oriented pastoralists can sell their 6-months old lambs to these entrepreneurs. Vertical integration of the production chain could be put in place, with quality control over the slaughtering process, and direct linkages to outlets.

Other associated entrepreneurial activities could include trade in livestock and other commodities.

### **D. Livestock product processing**

- These could be set up in conjunction with the Skills Development Centres, in particular for access to credit. Cooperatives could be set up, to access credit and pool resources for the collection and processing of livestock products (mostly animal fibre; wool and possibly cashmere), and adding value to the products.
- Its functions could be extended to act as a Centre for handicrafts produced by Afghan nomads; for quality control, the introduction of innovative designs and techniques, and market linkages could be established.

### **E. Promote small-scale poultry and rabbit production**

- Poultry production in the tent or backyard can be promoted among the settled and the semi-migratory pastoralists as an additional source of food and income.

### **F. Promote the development of large-scale irrigation schemes to increase agricultural land**

- The (former) pastoralists could be among the beneficiaries of agricultural land distribution, in particular in the south where many (former) pastoralists are still in the IDP camps.

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