

Afghanistan Research and Evaluation Unit

Case Study Series

**WATER MANAGEMENT,  
LIVESTOCK  
AND THE OPIUM ECONOMY**

**Marketing of Livestock**



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This report is one of seven multi-site case studies undertaken during the second stage of AREU's three-year study "Applied Thematic Research into Water Management, Livestock and the Opium Economy" (WOL).



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## About the Author

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## About AREU

The Afghanistan Research and Evaluation Unit (AREU) is an independent research organisation headquartered in Kabul. AREU's mission is to conduct high-quality research that informs and influences policy and practice. AREU also actively promotes a culture of research and learning by strengthening analytical capacity in Afghanistan and facilitating reflection and debate. Fundamental to AREU's vision is that its work should improve Afghan lives.

AREU was established in 2002 by the assistance community working in Afghanistan and has a board of directors with representation from donors, UN and other multilateral agencies, and non-governmental organisations (NGOs). Current funding for AREU is provided by the European Commission (EC), the United Nations High Commissioner for Refugees (UNHCR), the United Nations Children's Fund (UNICEF), the World Bank, and the governments of Denmark, Norway, Sweden, Switzerland and the United Kingdom.

## Glossary

<i>babaji</i>	farmers in Herat who specialise in growing and finishing livestock
<i>chupda</i>	traders and dealers
<i>chai poli</i>	"tea money," a small tip paid to police at checkpoints
<i>dasht</i>	"wilderness," or arid areas with abundant pastures in spring
<i>dalal</i>	commission agent
<i>ganj</i>	"treasure," a term applied to livestock markets, particularly in the west and south of Afghanistan
<i>gheraji</i>	"improved," livestock, such as an imported Friesian bull
<i>landi</i>	a form of dried and salted preserved meat which Afghans make in the autumn and consume during winter when low temperatures make it easier to store meat
<i>kalantar</i>	head of dealers or traders association
<i>kuchi</i>	nomads (a more complete definition is found in footnote 3)
<i>maldar</i>	term applied to farmers or herders whose livelihood depends mostly on livestock (from the Dari word "mal" meaning livestock)
<i>muzarebat</i>	a partnership in which the profit or loss is shared between the partners
<i>qasab</i>	butcher
<i>ruminant</i>	hooved animals with four-chambered stomachs which enable them to digest cellulose, e.g. cows, goats, sheep
<i>shura</i>	<i>council of village elders</i>
<i>watani</i>	"national" or "local" breed of livestock, which are crossbreeds of varying complexity; <i>watani</i> is used when there is no distinct name for the breed (such as the Kunari breed of cattle)

## Conversions

50 Afghani (Afs)	approximately US\$1
60 Pakistani Rupees (PKR)	approximately US\$1
1 Kabuli <i>ser</i>	7 kg
1 Herati <i>man</i>	4 kg
1 <i>jerib</i>	one fifth of a hectare or approximately half an acre

## Acronyms

ANDS	Afghanistan National Development Strategy
AREU	Afghanistan Research and Evaluation Unit
CSO	Central Statistical Office (Government of Afghanistan)
DACAAR	Danish Committee for Aid to Afghan Refugees
DCA	Dutch Committee for Afghanistan
FAO	Food and Agriculture Organisation
GAA	German Agro-Action
ICARDA	International Center for Agricultural Research in the Dry Areas
LMIS	Livestock Market Information Services
MAIL	Ministry of Agriculture, Irrigation and Livestock (formally the Ministry of Agriculture, Animal Husbandry and Food)
MADERA	Mission d'Aide du Developpement des Economies Rurales en Afghanistan
MT	metric ton
NRVA	National Risk and Vulnerability Assessment
PRT	Provincial Reconstruction Team
PRS	Primary Research Sites (of the WOL project)
USAID	United States agency for International Development
WOL	Applied Thematic Research into Water Management, Livestock and the Opium Economy

## Afghan Solar Calendar

Season	Afghan solar ( <i>shamsi</i> ) month	CE/AD equivalents (non-leap year)
Spring ( <i>bahar</i> )	<i>Hamal</i>	21 March to 20 April
	<i>Saur</i>	21 April to 21 May
	<i>Jauza</i>	22 May to 21 June
Summer ( <i>tabistan</i> )	<i>Saratan</i>	22 June to 22 July
	<i>Asad</i>	23 July to 22 August
	<i>Sumbula</i>	23 August to 22 September
Autumn ( <i>khazan/tirmah</i> )	<i>Mizan</i>	23 September to 22 October
	<i>Aqrab</i>	23 October to 21 November
	<i>Qaus</i>	22 November to 21 December
Winter ( <i>zimistan</i> )	<i>Jadi</i>	22 December to 20 January
	<i>Dalw</i>	21 January to 19 February
	<i>Hut</i>	20 February to 20 March

## 1. Introduction

With a market value of about US\$3 billion, livestock are a significant capital asset of the agricultural economy of Afghanistan, a point which is often overlooked.<sup>1</sup> This value illustrates their important role as easily convertible savings of families in rural areas, the majority of whom own livestock, even if it is just a goat or a cow. However, development programmes have given less attention to livestock as suppliers of meat to rural and urban consumers in Afghanistan compared to other products such as milk, wool, eggs and cashmere.<sup>2</sup> There are several possible reasons for this. One is that meat, being relatively expensive, is a small part of the Afghan diet, particularly in rural areas and among the urban poor. Indeed, a labourer earning \$3 a day would need to toil for a day to buy one kilogram of beef. A second reason is that in sedentary mixed crop/livestock production systems the income generated from livestock sales is small (NRVA, 2007). At the other extreme, *kuchi* are heavily dependent on the income generated from their herds which are dominated by sheep.<sup>3</sup> A third possible reason for this limited attention to meat is because men herd and market animals whereas women are mainly responsible for the care and feeding of livestock in sedentary production systems. A fourth reason is that there is a limited potential to add value to meat at the household level, whereas in the case of milk, wool and cashmere there is considerable potential for women to do so.

The importance of live animal sales as a source of income for rural families is emerging from AREU's three-year project "Applied Thematic Research into Water Management, Livestock and the Opium Economy" which ends in April 2008. The project's principal objective is to "enhance the sustainability of Afghan rural livelihoods by providing policy makers with clear and accurate information on the use, management and role of natural resources within the rural economy, with a specific focus on water, opium and livestock" (hence the "WOL" project). Specifically, the research is expected "to provide evidence-based directions and recommendations for improving the effectiveness of agricultural policy and rural programming". These research objectives build upon a recognized lack of understanding about the way in which rural livelihoods are constructed and are responding to change.<sup>4</sup>

The information reported in this case study adds to the findings of three earlier studies: two that focused on livestock husbandry and feeding (Fitzherbert, 2006; 2007) and the remaining one focusing on livestock production and health and research priorities to enhance offtake of livestock (Thomson, 2006). It also complements earlier market assessments conducted by AREU, one on the market for carpets (Pain and Ali, 2004) and one that synthesised the findings of studies on six sectors, including carpets (Paterson, 2006). A better understanding of livestock marketing chains will help to "stimulate rural economic activities (e.g. horticulture and livestock) that lead to competitive exports and import substitutes . . . within the private sector" (ANDS, 2006, page 81).

<sup>1</sup> This value is estimated using the mean prices of different livestock species collected during market surveys conducted by AREU's WOL project, and then multiplied by the numbers of livestock counted during the 2003 census (FAO, 2003). If there are 3 million rural households (FAO, 2003) and about 75 percent of them own livestock, then the asset value of the livestock owned by each household would be \$1,300. The FAO census excluded most of the *kuchi* owning livestock and therefore the FAO census data under-estimate the asset value of livestock (NRVA, 2007).

<sup>2</sup> As well as providing high quality protein, red meat is a significant source of iron and vitamin B<sub>12</sub>.

<sup>3</sup> A concise definition of *kuchi* is difficult since they include families that still practice transhumance with their livestock, mainly sheep and goats, and sedentary families who call themselves *kuchi* and own no or just a few livestock. In this case study the term *kuchi* is applied to the former category.

<sup>4</sup> The project has the additional objective of engaging the participation of major stakeholders (e.g. key ministries and other national institutions), and building their capacity through ongoing training and active collaboration in project activities, as well as through the provision of real-time information about rural resources and resource-use conditions.

The present case study aims to:

- Analyse livestock marketing from producers through to butchers;
- Identify inefficiencies in livestock marketing chains; and
- Recommend policies that would help enhance the efficiency of marketing chains and increase returns to livestock owners.

The case study uses information gathered during fieldwork undertaken over three weeks in April 2007 in two of the four provinces where the WOL project has an extensive monitoring programme. In addition, interviews were held with representatives of two *kuchi* tribes involved in the WOL project. Fieldwork also included visits to the main livestock market and butchers in Kabul.

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## 2. The Context<sup>5</sup>

The legacy of 10 years of war against the Soviet Union, civil war in the early 1990s and the start of the Taliban government were followed in 1998 by one of the worst droughts in living memory. Apart from the suffering faced by the rural and urban populations, the drought, which continued for up to six years in some parts of the country, massively reduced the national livestock population. In the absence of formal surveys, it is only possible to say that livestock numbers are gradually recovering towards pre-drought levels. The decrease in the livestock population not only reduced its overall asset value and income from livestock sales but also reduced the supply of red meat to consumers. As mentioned later in this report, imports of live animals and cheap frozen meat have helped to stabilize prices and allow poorer consumers to purchase some meat.

A more detailed examination of mixed farming and *kuchi* production systems in Afghanistan identifies many combinations of land area and livestock ownership, with wage labouring being a significant contributor to rural livelihoods for many families.<sup>6</sup> In most villages a proportion of the families cultivate land but own no livestock, whereas other families own livestock but cultivate no land. Some of the latter enter into sharecropping arrangements. The main category, however, is made up of families who cultivate land *and* own livestock. Fitzherbert (2007) recently highlighted this diversity in Tunyan, a village in Herat Province. Among the livestock owners who own no or little land are the *kuchi*. Their mean livestock ownership per household was recently estimated as 50 sheep and goats, and a few camels, donkeys and cows (de Weijer, 2005).<sup>7</sup> Appreciating this diversity in the production systems is important when attempting to understand the decisions that farmers and *kuchi* take when they market livestock and when making recommendations concerning policies that aim to increase income from selling livestock.

In recent years there has been a revival of interest in livestock marketing (Thomson et al, 2005; CNFA, 2006; Landell Mills, 2007). Before that there was a dearth of published information. Hakimi (1978) estimated per capita total meat consumption in the 1960s and 1970s to be between 8.0 and 14.5 kg. A recent report shows a value of 12 kg meat per capita per annum (RAMP, 2006). In the 1970s informal sheep exports to Iran were valued at \$30 million (Khan and Iqbal, 1979). With the export market in view, a World Bank-funded livestock/rangeland project started in the mid-1970s in Afghanistan. It focused on range improvement and lamb fattening and the construction of a large slaughterhouse west of Herat city. Construction was incomplete at the time of the Soviet invasion in late 1979 and fighting during the civil war in the early 1990s resulted in severe damage to the building. The slaughterhouse was seldom used to its full capacity. The Central Statistical Office has produced estimates of meat production but the assumptions used for the estimations are not known (CSO, 2004).

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<sup>5</sup> An extensive literature on the livestock sector in Afghanistan can be found in the papers listed in the reference section of this case study.

<sup>6</sup> A less obvious production system is the backyard ownership of a few chickens, sheep and goats or a cow by an unknown proportion of the urban population.

<sup>7</sup> It is beyond the scope of this case study to give a detailed description of the *kuchi*. More information can be found in the extensive literature about these people who are facing many challenges to their traditional way of living.



### 3. Methodology

The monitoring component of the WOL project is spread over two years, starting in early 2006. Men and women from 220 representative rural households were selected during the baseline survey at 20 primary research sites (PRS) in Ghazni, Nangarhar, Herat and Kunduz Provinces (Roe, 2006). These householders are being interviewed at three-monthly intervals about their on-farm activities, natural resource use and socio-economic indicators of rural livelihoods. In addition, two groups of *kuchi*, many of whom camp fairly close to Kabul in spring and summer, are included in the monitoring programme. The production and feeding practices applied by livestock owners were addressed by Fitzherbert (2006, 2007), whereas Thomson (2006) identified research topics which could increase offtake. The present study of livestock marketing builds on the platform of knowledge gained from the earlier studies and from information gathered at the 20 PRS. Its findings are complemented by using prices of livestock collected each month since April 2006, from markets in Ghazni, Batikot (30 km east of Jalalabad), Kunduz and Robat-i-Sangi (25 km north of Herat).

Originally it was planned to balance the fieldwork between Herat and Kunduz Provinces, using interviews across the marketing chain from livestock owners to butchers. This was possible in Herat Province but fewer interviews were held in Kunduz Province for security reasons. This was compensated for by holding some interviews in Kabul. DACAAR and GAA, AREU's two WOL project partners, organised the field trips in Herat and Kunduz provinces, respectively.

The following players along the marketing chains were interviewed:

- **Herat Province:** A group interview was held with farmers in Sir Zar and Gorak villages which have mainly rainfed cropping. Mean household ownership of small ruminants is 15-19 head. Visits were made to livestock markets at Robat-i-Sangi (in Robat-i-Sangi District), Marabad village (north of the Hari-Rud River in Pashtun Zarghun District) and Selimi village (south of the Hari-Rud River in Pashtun Zarghun District). Men from two groups of *kuchi* were interviewed, one located a few kilometres north of Marabad village, the other about 10 km south-east of Herat. Two separate visits were made to Herat's main *ganj* (livestock market) and the veterinarian in charge of inspecting meat in the adjacent slaughterhouse was interviewed. Four butchers were interviewed in Herat. The *ganj* at Imam-i-Shash-Nur east of Herat was not visited although it was referred to by market players.
- **Kunduz Province:** A group interview was held with farmers in Wakil Jangel village where irrigated agriculture predominates and livestock herds are generally small. In spring, small ruminants are herded together on the neighbouring area of natural pasture called the Dasht-i-Abdan.<sup>8</sup> Interviews were held with three groups of men herding their own and other owners' sheep and goats on the Dashti-i-Aban. Two of the groups were Pashtuns<sup>9</sup>, the other was Tajik.<sup>10</sup> Interviews were held in Kunduz with

<sup>8</sup> This dasht ("wilderness", or grazing area) covers several 100 km<sup>2</sup> between the Khanabad River, north of Kunduz City, and the Amu Dari River at the border with Tajikistan.

<sup>9</sup> In the Dasht-i-Abdan area they are known as Kandahari since their ancestors moved from southern Afghanistan to Kunduz Province 60-70 years ago.

<sup>10</sup> Several hundred livestock owners who own sheep and a few goats and cattle camp for two or three months in spring on the Dasht-i-Abdan. The owners include several ethnicities, among them Pashtuns (including Balochis from borderlands of southern Afghanistan with Balochistan in Pakistan), Tajiks, Uzbeks and Arabs. Barfield (1981) made a detailed study of the Arabs of Afghanistan. In May when the pastures dry up owners spend a month walking their animals to summer pastures high in the mountainous area of Badakhshan Province. For the past 25 years they have been facing increasing harassment over pasture access (Patterson, 2004), and these conflicts are becoming so serious that they are threatening the seasonal movement of herds. After two or three months on these summer pastures they walk for another month back to graze the crop residues in the

three butchers, the head of the butchers' association and a group of traders operating in the livestock market in Kunduz.

- ***Kabul and surrounding areas:*** Traders were interviewed at the "Company" livestock market run by the municipality on the south-western edge of Kabul.<sup>11</sup> Traders were also interviewed in the livestock market at Qarabagh, a town 25 km north of Kabul at the southern part of the Shomali Plains – a relatively prosperous irrigated area growing food and fruit crops and vegetables. Four butchers were visited in Kabul, one of whom had recently started importing frozen beef from Pakistan. An interview was held at the Kabul Municipality to enquire about official meat prices.
- ***Kuchi groups:*** Two interviews were held with separate groups of *kuchi* men from the Khomarikhel tribe at their spring camp at Oktoi, a location at the border between Deh Sabz District in Kabul Province and Bagram District in Parwan Province. A group interview was held with *kuchi* men from the Kutubkhel Stanakzai who were temporarily camped with their families near Darulaman at the southern edge of Kabul City. These two *kuchi* groups are described in more detail by Fitzherbert (2006, 2007).

**Box 1. Main topics included on the checklist\***

- Selling practices
- Different market players
- Leasing of marketplace
- Seasonal market flows
- Seasonal price cycles
- Margins along the chain
- Competition between players
- Loans, credit and borrowing
- Growing/finish livestock
- Coping with drought
- Live animal imports
- Frozen meat
- Informal payments
- Slaughtering of animals
- Price information

*\*The actual questions asked varied depending on whether kuchi or settled livestock owners were being interviewed.*

Semi-structured interviews, lasting up to 90 minutes in some cases, were held with different players along the marketing chain, guided by a checklist which varied according to the type of player being interviewed. Some of the main points covered are shown in Box 1. In the livestock markets several different players were interviewed for shorter periods. These included farmers selling livestock, dealers working within markets, traders selling livestock purchased elsewhere, agents that leased the marketplace and collected marketing fees, and butchers buying livestock. More details about the main market players are found in Section 6.1. Information gathered at interviews was cross-checked as often as possible by asking several players the same questions.

As mentioned already, the main difficulty faced during fieldwork was the restrictions on movements for security reasons. This particularly limited the spread and duration of fieldwork in Kunduz Province. For this reason more attention was given to livestock marketing in Kabul. Noteworthy was the willingness of market traders to answer questions and their pleasure at being given a platform to express their opinions, particularly those who were importing livestock and facing considerable difficulties with check posts. They also spontaneously offered insightful comments about livestock marketing during the various governments since the mid-1970s.

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irrigated areas of the lower Kunduz River and around Imam Sahib. They spend the winter in the villages in these irrigated areas where their animals are heavily dependent on crop residues and purchased oil cakes for about three months in winter.

<sup>11</sup> Kabul has three other smaller livestock markets (Thomson et al., 2005; Landell Mills, 2007).

## 4. Livestock Owners' Perspectives on Marketing

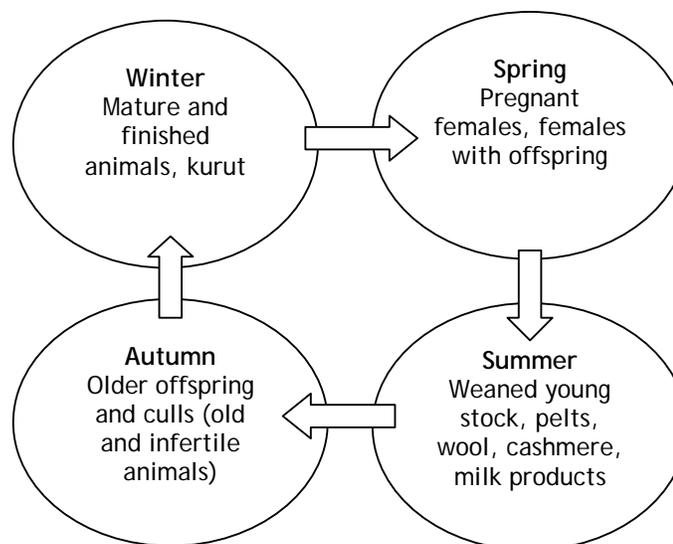
In addition to being the source of several edible and non-edible products, livestock are a huge and readily convertible capital asset, as mentioned in the Introduction. Owners retain their livestock for as long as possible unless they urgently need cash.<sup>12</sup> The value of the herd increases when young stock are born, grow and mature, and, as shown later in this case study, many owners add value to young stock by feeding them well for a few months. Conversely, the capital value of a herd also decreases as animals get older, some are sold and others die. It is therefore not surprising that farm animals are called "stock" which can both increase and decrease in value over time. The Dari word *ganj* or "treasure" is aptly used for livestock markets in many parts of Afghanistan.

Livestock sales at the producer level can be broadly divided into two categories. Owners have some control over the first category which includes sales made when there is an urgent need for cash, when prices are high and when selling finished animals. The second category involves sales over which owners have little or no control. They include emergency sales during drought and forcibly handing over livestock.<sup>13</sup> These two categories are discussed in the next section. However, to start with, some results are presented about livestock owners' perceptions about the seasonal price cycle and the types of livestock sold according to the season.

### 4.1 The seasonal price cycle and types of livestock sold

Livestock owners, like all market players, are well aware of the seasonal price cycle. They perceive prices to be high in spring (Hamal to Jawza), lower in summer (Saratani to Sumbula), increasing in autumn (Mizan to Qaus), and high in winter (Jadi to Hut). Actual seasonal price cycles in livestock markets are not quite so clear as the cycle perceived by livestock owners, as will be seen in Section 5. The cycle is driven by the interplay between the types and availability of animals for sale, feed supplies, competition from other types of meat and consumer demand. The last two points are considered in Section 7.

Figure 1. Sales of livestock and livestock products over the four seasons



<sup>12</sup> Cash from livestock sales is used to buy essential food and household items, to pay for weddings, urgent medical treatment, funerals and religious festivals and to help buy a tractor, for example. Thus, a poor family might sell one sheep to buy some sacks of flour, whereas a rich one might sell a valuable cow and her calf to partly finance materials for a house. Some livestock owners are fully dependent on this cash, such as a *kuchi* family with no other source of income apart from their animals. Others, such as a farmer with irrigated crops and fruit trees owning a cow or a goat, keep animals mainly to supply milk products to the family. This contrast can be seen in the sample of farmers and *kuchi* included in the monitoring scheme of the WOL Project.

<sup>13</sup> Emergency sales also include animals that are injured or sick and they are often sold to vendors who buy them at a low price.

Availability for sale of animals of different types is related to the reproductive cycle in small ruminants. Most offspring are born in spring, although cows are less seasonal breeders (Figure 1). Thus, if they have no other source of income, *kuchi* have no option but to sell valuable pregnant and lactating ewes with lambs (Table 1, see Section 5). Some of these lactating ewes might be older animals at the end of their reproductive life. But prices of this category are usually high, possibly reaching 6,000 Afs because farmers in irrigated areas are keen to buy animals to supply milk for their families and lambs to be grown and finished on feeds from the farm. In spring, farmers also buy and sell pregnant cows and cows with calves at high prices (Section 5). Weaned lamb sales start in May and weaned kid sales start a month later. The numbers being sold increase through summer, reducing prices at a time when pastures in the valleys are drying up and demand for meat is falling. *Kuchi* with large flocks that spent the summer on mountain pastures return in August and September to areas where there is stubble grazing and sell most of their male lambs and male kids. This puts more downward pressure on prices. At this time many old and infertile animals are sold to lower feed needs in winter and because they are less able to make the autumn migration. These older culls and well finished sheep supply an urban demand which is increasing in November and livestock prices begin to recover. At this time consumers were traditionally keen to purchase sheep for making *landi*.

Superimposed on this seasonal price pattern are short-term variations, largely the result of precipitation during the previous winter and spring. Most groups interviewed spoke about the good winter rains of 2006-07 which resulted in better spring pastures than they had seen for many years. As a result, livestock were being traded at good prices in April 2007 since there was strong demand from farmers who had cash and feeds to grow and finish young stock over the summer. The two *kuchi* groups mentioned that if the spring rains were good early-born lambs might be worth 3,000 to 3,500 Afs in late May.

In 2007 the spring rains in the Kabul area were poor, however. This led farmers in irrigated areas to believe that their crops might not yield so well and this lowered the demand for lactating animals. At the same time, *kuchi* were concerned about grazing conditions and some were considering selling animals. Both these perceptions would increase supplies and therefore depress prices. Thus, prices can be quite volatile in response to short-term changes in precipitation.

#### 4.2 The immediate need for cash

The importance of livestock as a readily convertible source of cash has been mentioned but this differs according to the type of production system. At one extreme are the farmers in the canal irrigated farming systems being monitored by the WOL project. These farmers earn much of their income from crops but if all of them have been sold and farmers face a cash shortage prior to the next harvest, they can sell one or two of their livestock. These are often calves and even highly valued cows with calves.

At the other extreme are *kuchi* who are heavily dependent on livestock. Some of them own so few animals that the men take labouring work (Box 2).<sup>14</sup> In such cases families have little option but to sell recently weaned animals when they need cash. At first sight this might seem an irrational decision but one group challenged this assumption. They justified selling three-month-old weaned lambs for 2,500 to 3,500 Afs when prices were good in May, arguing that growth rates were good up to weaning but fell after that on the sparse pastures. As

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<sup>14</sup> In herds of less than 100 small ruminants, herd size per family member is a more useful measure than herd size per se, since family size can range from eight up to as many as 25 members.

**Box 2. Extract from an interview with some *kuchi* of the Khomeri Khel**

"A family of eight – say three adults and five children – needs to own about 80 sheep to survive on.\* But few families of eight in our tribe own more than 80 sheep. There are families owning 40 head with a family size of 14, or three brothers owning 200 sheep with a family of 25 to 30 persons, or a family of 8 to 12 persons owning just 20 sheep. Fewer families of eight own more than 80 head than families of eight who own less than 80 head. Families with a small herd work as labourers but have a low standard of living. Families with young men who worked as labourers during the drought were better able to retain their sheep than families without men of labouring age who lost more of their animals. In fact, in the former group flock size might have increased a bit in the last two years but in the latter group numbers could still be decreasing because they have to sell animals to raise cash to cover their essential needs. So for them the situation is getting worse and worse."

\*The Kutub Khel Stanakzai *kuchi* reported the same value (Thomson, 2006), whereas the mean ownership of *kuchi* families in the WOL Project sample was 8.5 head per person (Roe, 2006).

prices decreased over summer, a larger lamb sold in August might only make 4,000 Afs. This is not a large increase in value given the uncertainties about the quality of grazing during summer, risks of disease and problems over access to summer pasture.

In recent years, access to mountain pasture in Badakhshan has become a significant problem facing herders on the Dasht-i-Abdan. To gain access they are forced to hand over animals to local commanders who operate beyond the reach of the district authorities.<sup>15</sup> One herder estimated that problems accessing these pastures – coercion, fines for alleged grazing on crops beside migration routes, and being forced to offer animals for feasts – cost 330 Afs per sheep. This is equivalent to a 5-10 percent informal payment on each sheep each year. This informal payment is slowing down the recovery of herds after the drought.

As already mentioned in the case of young lamb sales, it was not always immediately obvious why the decision was taken to sell a particular type of animal or product. Another example concerns Karakul pelts. Herders on the Dasht-i-Abdan sold brown pelts from day-old Karakul ram lambs for 1,500 to 1,800 Afs, or even as much as 2,000 Afs in 2006. But a four-month old weaned lamb might only earn 2,000 to 2,500 Afs.<sup>16,17</sup> There are several reasons for choosing to slaughter lambs for their pelts. First, a ram lamb might be a twin and the ewe's milk production too low to raise two healthy lambs. Second, families without cows need milk to make products for family consumption. Third, the price of pelts might be quite good at the time and therefore selling pelts avoids the uncertainty of lamb prices being depressed three months later because of an over supply of lambs following poor spring rains.<sup>18</sup> Fourth, the ewe might be weak or sick and unable to rear her lamb.

### 4.3 Emergency sales during drought

Little has been said so far about the effects of the recent drought on livestock prices and decisions to sell livestock. It was probably the most significant shock that owners have faced since the Soviet war in the 1980s and civil war in the early 1990s.<sup>19</sup> The previous two-year

<sup>15</sup> See Patterson (2004). The seriousness of the problem of pasture rights can be seen from the considerable attention the topic is receiving in several projects led by AREU, FAO and UNDP.

<sup>16</sup> Karakul flocks in Balkh, Jowzja, Fariab and Badghis provinces were more important as pelt producers in the 1970s but it is unclear whether this is still the case since the numbers of pelts exported in the 1990s was said to be far lower (see references listed in Thomson et al., 2005). Van Engelen (personal communication) remarks that Karakul owners only slaughter lambs with good quality pelts to get a good price.

<sup>17</sup> Black pelts sell for about \$10 less than brown pelts.

<sup>18</sup> These pelt prices are at least double those found during fieldwork in mid-2002 (ICARDA, 2002).

<sup>19</sup> The other shock is the difficulties *kuchi* have accessing summer pastures.

drought of 1969-71 reduced animal numbers which then recovered more quickly than seems possible. The recent drought, which started with low precipitation during winter 1998-99, was more severe and lasted for four years, even six or seven years in some regions.<sup>20</sup> It markedly reduced herd sizes across the country (FAO, 2003). According to the *kuchi* groups interviewed, herd recovery has been slow, mainly because pasture conditions only improved in spring 2006, and 2007 might still not be as good as initially thought. This is particularly the case in smaller herds of 20-40 head in which a greater proportion of animals have to be sold to buy essential items than in larger herds. Farmers in Badakhshan also report that there is a slow recovery of livestock numbers (Mansfield, 2007).

During this severe drought, livestock owners had no option but to sell animals to buy feed for those remaining and to buy food for their families. The destocking strategy applied was fairly consistent across the groups interviewed – they generally sold sheep or goats that were

*“During the drought it wasn’t disease that reduced my herd. I was forced to sell animals because I couldn’t afford to feed them.”*

– a *kuchi* near Kabul

selected by traders in the market or traders coming to the village. Invariably the best animals were selected first, and even then the price for a sheep was as low as a tenth of its value today. For example, farmers interviewed in Herat and Kunduz provinces exchanged a sheep during the drought for 12 to 35 kg wheat flour, whereas in April 2007 they could sell a sheep and buy 120 to 240 kg wheat flour. Close to Kabul, *kuchi* groups reported a narrower exchange rate of flour to sheep – 70 to 140 kg during drought and 280 to 350 kg in April 2007. This might have been due to the stronger demand for meat in Kabul during the drought years and at present.

#### 4.4 Peri-urban growing and finishing<sup>21</sup>

There is a growing appreciation about the importance of growing and finishing livestock as a peri-urban practice around towns located in areas dominated by irrigated cropping (Thomson et al., 2005; CNFA, 2006). It takes place inside and next to family compounds at the edge of and even inside provincial cities and towns close to the PRS (of the WOL project) and on farms scattered across the irrigated areas and valleys nearby. In addition to the grain they produce, many of the crops grown on these farms produce residues such as wheat straw which is fed to livestock. This gives these residues a high market value which can be, on an area basis, as high as the grain the crops produce. In addition, many different forage crops are grown on small areas to feed to cows in particular. These feeds are a key input for the growing and finishing sub-sector in which farmers exploit a marketing opportunity created by the increasing demand for meat. The other input which is widely available is a supply of livestock of all ages and degrees of finish.

Peri-urban growing and finishing is significant from several points of view. It creates demand for young and older animals, it generates income by adding value to the animals, it adds value to crop residues and it helps to supply meat to urban consumers. Significant problems facing the practice are shortages of good quality feeds and credit, poor veterinary care and limited knowledge about best production practices. This lowers the quality of livestock finished in Afghanistan and their ability to compete with imported animals. Indeed, a few

<sup>20</sup> Responses to questions about the number of years of the recent drought were fairly consistent. Most respondents said pasture conditions – as a proxy for severity of drought – were poor to very poor for six or seven years. They improved somewhat in spring 2005 and were quite good in 2006.

<sup>21</sup> “Finishing” is preferred to “fattening” which has negative connotations in terms of human health.

butchers remarked that imported cattle gave higher margins because the wholesale price was somewhat lower and they yielded more “meat”.<sup>22</sup> Describing the production practices applied, though important, is outside the scope of this case study which focuses in the following section on the marketing aspects of the growing and finishing sector.

The popularity of growing and finishing indicates that farmers generally make a profit from this practice (Box 3). However, even though they are well aware of seasonal price cycles, farmers are taking a risk when they follow this practice since there are uncertainties about how much profit they might eventually make at the time they sell an animal. Examples of the uncertainties are the quality of local grazing which depends on the spring rains, availability of farm-grown feeds, prices of purchased feeds, livestock prices at the time of sale, and diseases or even death of an animal. Each of these alone can reduce margins or turn a modest profit into a loss.

Spring 2006 and 2007 provide a good example of how prices respond to rainfall during the previous few months. Rainfall in the Herat area and snowfall in the mountains of the eastern Hazarajat in the winter 2005-06 and spring of 2006 were poor and many young animals were sold in April 2006 since there was less pasture available. Moreover, demand was poor because potential buyers were concerned about being able to make a profit from growing and finishing. As a result prices were low in April 2006. However, the opposite situation was found in April 2007. Not only were more young animals being retained because of good grazing, but demand for animals for growing and finishing was strong. These factors together increased prices in Selimi market although the increase was moderated by animals being sold by other farmers who needed cash during the period before the wheat harvest. Buyers were exploiting the opportunity to grow livestock on the better pastures at no cost, even though they were aware that lamb prices would start decreasing in late May. Others were supplementing grazing with freshly cut alfalfa. Because they usually kept them longer, farmers buying calves had more scope to sell when prices were higher and thereby protect their margins (Box 3).

### Box 3. Growing and finishing calves

A farmer in Selimi market purchased six-month old calves for 6,000-7,000 Afs each, fed them for 12 months and sold them for 14,000 Afs, and made a good profit of 2,000-3,000 Afs after feed costs. Knowing that diseases could negate the profit, he vaccinated his calves and was satisfied with the service provided by the newly trained paravet who had established a practice nearby. Just five or six farmers in his village grew and finished animals but many others would do so if they could get credit to purchase animals and feed.

The opposite situation was found in Kunduz Province. Spring 2006 was better than in 2007 which had started well but then the late rains failed. According to market players interviewed, prices had been good until mid-April 2007 since farmers with irrigated crops were confident that they could feed their animals cheaply on farm-produced feeds. When the late spring rains failed they lost confidence in their ability to make a profit. Prices collected in Kunduz market confirm the perceptions of market players, with prices high in spring 2006 when the rains had been good, but there was a steep fall in prices between March and April 2007 (Figure 3). According to traders, in one week in April, due to poor rains prices of a cow had dropped by 2,000 Afs to 18,000 Afs and a finished sheep from 7,000 to 6,000 Afs. A farmer unlucky enough to have to sell his animals a week late would see much of his margin disappear. Thus, there is a considerable element of risk in the growing and finishing business.

<sup>22</sup> The term “margin” is used rather loosely in this case study. In the case of traders the wholesale margin is the revenue from the sale of animals minus variable costs (transport, customs charges, informal payments, etc.).

Margins were also being squeezed because costs of purchased feeds increased over the 12 months to April 2007. For example, cottonseed cake increased in price by 25 percent to 14.3 Afs per kg, total costs to feed and grow a ram lamb for 40 days increased by 67 percent, but livestock prices had decreased a month early due to poor spring rains.<sup>23</sup> Prices of livestock over that period were not higher than in April 2006 and therefore did not compensate for the higher feed prices (Figure 3). Indeed, there is little evidence that market prices have increased in three major markets (Herat, Mazar and Kabul) since September 2005 (unpublished data, Dutch Committee for Afghanistan).

Growing and finishing is practiced in many other parts of the country and there was evidence that traders travelled considerable distances to purchase livestock for this purpose. For example, traders from Kandahar travelled to Robat-i-Sangi and the Stanakzai *kuchi* talked about traders from Kandahar buying in Kabul's Company market in May and June. One trader in Kunduz estimated that during the peak selling season in autumn, 20-30 trucks each loaded with 20 cattle or 50-60 sheep finished in the Kunduz area, left for Kabul each week, with some of them going to Mazar.

#### 4.5 Selling in a buyers' market

The question whether livestock owners feel they are being exploited by dealers and traders is important, because it affects the income that they make from a sale. Whereas intuitively it might be thought that these owners are being exploited, closer examination indicated a complex situation. Several inter-related factors were found to affect the susceptibility to exploitation in the marketplace.

As mentioned above, livestock owners are aware of seasonal price cycles and are well informed about prevailing market prices for different types and qualities of animals. They therefore arrive at market with a particular price expectation for each animal. If they are selling a good quality animal they have little difficulty selling it, even if the selling price is somewhat lower than they expected. But a farmer who urgently needs to sell his mediocre animals and has walked all day to reach market is in a weak bargaining position when it comes to selling them. This scenario was mentioned in Robat-i-Sangi district market. Here, farmers who had walked for a day or two to reach market lowered their price expectations just to get a sale since not selling their animals and returning home with them was not an option. However, *kuchi* camped about three hours walk from Qarabagh market said they returned with their animals to their camp if the prices offered were too low. After a few days they would walk their animals to market again or, if they had other business in Kabul, pay 30 Afs a head to transport animals to the Company market.

Movement of traders through a rural area was another factor that affects the bargaining power of both buyers and sellers. Understandably, farmers living in remote villages found it convenient to sell to traders, even though the price paid was a bit lower since the traders deducted the transport costs. In Badakhshan, farmers reported being paid only half the price by traders coming to their area compared to prices paid in Kunduz market (Mansfield, 2007). Traders circulated through remote areas at irregular times which added to the uncertainty about the date of sale of an animal. Once again, farmers with good quality animals who were in no hurry to sell were in the strongest bargaining position.

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<sup>23</sup> The reason for the high price of cottonseed cake is unclear and it is not just due to demand exceeding supply. Even prices in 2005 and 2006 in Kunduz (at 11.5 Afs per kg or \$230 per MT) were well above the price range at that time in Pakistan (\$160-220 per MT) and Tajikistan (\$130-190 per MT) depending on quality. Traders said cottonseed cake was now being imported from Uzbekistan without being subjected to quality testing. Indeed, this imported oilcake was said to be inferior to the locally produced material coming from the Spinzar ginnery in Kunduz.

## 5. Prices of Livestock and Seasonal Price Patterns

An awareness of the prices of livestock in markets is one of the criteria that livestock owners use when taking decisions about when to sell. Moreover, traders who move between markets also use price information to take decisions about when and where to buy livestock and when and where to sell them. To better understand the complexities of livestock pricing in Afghanistan and to quantify possible spatial and temporal differences in livestock prices for different categories of livestock, the WOL project started monitoring prices in three major livestock markets in April 2006 – Batikot (30 km east of Jalalabad), Ghazni and Kunduz (Box 4). Recording of prices in Robat-i-Sangi market started in March 2007. The following section presents results of a preliminary analysis of prices collected over the first 12 months of monitoring. For this reason and because the duration of the monitoring was only one year, a rather cautious inter-pretation of the results is given. Moreover, the perceptions of farmers about seasonal price patterns at the PRS and livestock markets in Herat and Kunduz can be compared with the patterns shown in Figure 2, whereas the patterns presented in this figure for Batikot and Ghazni markets cannot be compared with the perceptions of market players at the PRS nearby as they were not visited. A more detailed statistical analysis will be made when prices have been collected over a longer period.

### Box 4. Monitoring livestock prices

Monitoring of livestock prices started in Kunduz and Batikot in April 2006 with return visits taking place each month after that. Due to local problems prices for Ghazni Ganj market were collected starting in July 2006. Research staff visited each market and asked sellers what price they expected to receive for their animal, and its age, sex, reproductive state, finish (fat, average, thin), breed and provenance. They also measured the height of the back of the animal at the shoulder. At each visit information from 36 animals was collected, divided equally between cattle, goats and sheep. Within each of these species six females and six male animals were always selected. The six females were either non-pregnant, pregnant or lactating with young, in different proportions according to the season. The six males were usually intact males but, at times, castrated males were selected. Animals were selected to obtain a range in size in each particular category. In the male category there was a considerable range in age, from one up to 12 years. For the purpose of this case study only data on prices and on prices in relation to height at the shoulder are presented.

### 5.1 Prices of different types of livestock

The prices of the different types of livestock vary considerably (Table 1).<sup>24</sup> In Kunduz market, oxen were on average the highest priced animals but cows with calves were among the most valuable livestock being sold (Figure 3). In the case of does and ewes, females with offspring generally fetched the highest price across the three markets. Male sheep and goats were sometimes more, sometimes less, valuable than females of these species. The lowest priced livestock were non-pregnant cows, does and ewes that were usually being culled due to old age and infertility. The low price of this category is also partly because this group includes recently weaned and somewhat older females. The income generated from these culls should not be ignored as they account for a significant proportion of the overall offtake, particularly during drought.

Within each of the categories of livestock shown in Table 1 there is considerable variation in the prices. This is due to many factors, such as the age, size, finish and breed of the animal which can all vary considerably. For example, the youngest animal might be less than a year old, whereas the oldest one might be 15 years old. Also, the experience and diligence of

<sup>24</sup> Camels for sale were seen in the main provincial markets but different market players were not interviewed about them. Jonathan Lee (personal communication) comments that camel meat is often sold as beef.

enumerators plays a role since they have to take decisions about which animals to select to get a balanced sample in the marketplace where the proportions of animals in each category changes each month. Whether the wider scatter of prices in Ghazni market is genuine or due to measuring errors is unclear (Figure 5).

Prices of oxen across the three markets were similar but in both Kunduz and Batikot markets they were trading at higher prices than bulls (Table 1). This may be partly because of the good demand for draught oxen in these two markets. It is also related to the wider range in the age of bulls, which partly explains the larger standard deviation compared to oxen which are more uniform in size and age. In Ghazni market the higher mean price of bulls is largely due to the high proportion of tall humped (*Bos indicus*) bulls imported from Pakistan present in this market. Non-pregnant cows, which can include heifer calves and old and infertile cull cows, were similar in price to bulls except in Ghazni market where bull prices were high for the reasons mentioned already. Apart from Kunduz market where prices of non-pregnant cows was lower than pregnant cows and cows with calves, in the other two markets the prices of these three categories of cows were similar.

Some differences were apparent in the prices of goats across the three markets but they were difficult to explain (Table 1). Castrated bucks were more valued than bucks in Kunduz market than in Batikot market although this was more due to the low price of bucks rather than the high price of castrated bucks. Non-pregnant does, probably because they included some young does, were less valued in Kunduz and Batikot markets than pregnant does. In these two markets does with kids were the highest priced goats. In contrast, in Ghazni market bucks were the most valued goats because prices of does with kids were low.

**Table 1. Prices of livestock in three markets averaged over 12 months between April 2006 and April 2007 (prices in Afs per animal)**

Species, sex and state	Kunduz			Batikot			Ghazni <sup>*</sup>		
	Mean	n	Std. dev.	Mean	n	Std. dev.	Mean	n	Std. dev.
<b>Cattle</b>									
Castrates (oxen)	23,400	20	4,429.6	24,306	6	3,046.7	20,833	3	2,886.8
Bulls	13,729	34	4,037.5	19,742	64	7,467.6	27,750	59	6,222.2
Cow (non-pregnant)	12,740	25	2,765.6	19,474	19	5,660.2	19,958	2	5,833.6
Cow (pregnant)	19,145	38	5,449.9	23,966	17	8,341.7	20,020	29	4,037.0
Cow with calf	19,321	39	7,187.8	22,574	34	6,496.8	19,880	27	2,541.0
<b>Goats</b>									
Castrates	3,140	10	1,221.3	3,296	9	979.9	nd <sup>†</sup>	nd	nd
Bucks	2,293	51	935.8	3,454	61	1,440.3	3,145	60	830.9
Doe (non-pregnant)	2,319	57	590.2	2,690	29	949.3	2,313	29	789.8
Doe (pregnant)	3,100	15	523.7	3,811	11	1,573.7	2,083	2	235.7
Doe with kid	3,491	23	798.8	4,581	30	1,685.6	2,443	29	666.7
<b>Sheep</b>									
Castrates	5,448	23	1,731.8	nd	nd	nd	nd	nd	nd
Rams	5,349	49	2,189.2	5,363	70	2,110.5	6,494	54	1,907.2
Ewe (non-pregnant)	4,575	52	1,234.9	3,701	24	980.5	6,063	4	1,765.6
Ewe (pregnant)	4,947	15	468.8	4,604	8	1,099.9	4,240	32	609.4
Ewe with lamb	5,700	15	1,241.5	5,182	38	1,819.9	4,330	24	743.9

<sup>\*</sup> Prices averaged over 11 months starting July 2006

<sup>†</sup> No prices collected because none or few of this category of livestock were found in the market.

Rams in Ghazni market were the highest priced sheep of all categories in all three markets for reasons which are unclear (Table 1). Non-pregnant ewes were the least valued sheep in Kunduz and Batikot markets, although this could merely be because this category included a number of young ewes. There was a tendency for pregnant ewes and ewes with lambs to have the highest prices in Kunduz market and the lowest in Ghazni market.

Some differences in the prices of the various categories of livestock are evident from the information presented in Table 1. However, to what extent these are real or due to sample size and other unidentified factors cannot be ascertained. Traders probably only decide to move livestock over long distances if they are sure it will cover their costs. Examples of this are cattle and sheep imported to Kabul from Pakistan and buffalo imported from Quetta in Pakistan to Herat (see Section 6).

## 5.2 Seasonal price patterns

Seasonal patterns in the prices of cattle, goats and sheep in Kunduz market generally matched with the perceptions of livestock owners, in that prices decreased over the summer in 2006 and recovered in autumn (Figure 2). Prices in April 2007 were lower than 12 months previously. Monitoring over a longer period is needed to show whether prices recover again. However, there are indications from the price monitoring of the Dutch Committee for Afghanistan since September 2005 that there has been a downward trend in livestock prices.

Prices in Batikot market showed a different seasonal trend (Figure 2). After decreasing somewhat in spring 2006, they then recovered and stayed fairly stable over the summer and winter 2006. Whether the proximity to Pakistan stabilises prices in this market is not known.

Cattle prices in Ghazni market were fairly stable during summer 2006 and then decreased, whereas sheep prices climbed until December 2006 and then decreased (Figure 2). Goat prices peaked in August 2006 and then gradually decreased until February 2007 when they recovered again. It is difficult to interpret these price patterns although once again the proximity to Pakistan may have a larger impact on prices than any underlying impact of the local supply and demand for livestock. As mentioned earlier, since no market players were interviewed in the area of Batikot and Ghazni, it is not possible to say whether these seasonal price patterns would reflect the perceptions of livestock owners.

## 5.3 Relationship between livestock prices and shoulder height

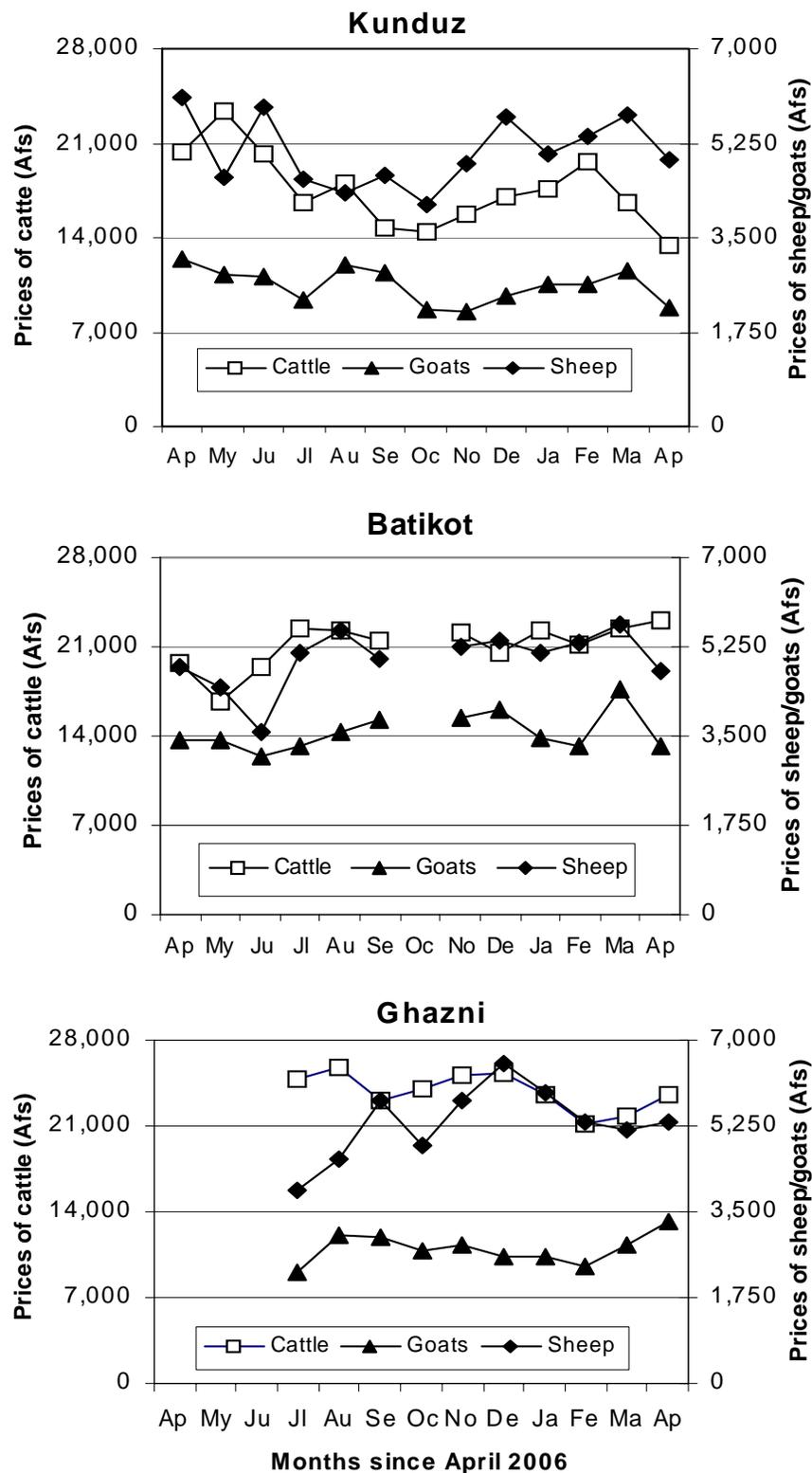
Ideally all livestock should have been weighed at the time prices and the other criteria were recorded. It would then have been possible using multiple regression analysis to prioritise the usefulness of the different criteria in terms of their value for predicting livestock prices (Rodriguez et al., 1995). However, weighing was not possible and for this reason height at the shoulder was used as a proxy for live weight (Figures 3 to 5).

In Kunduz market in particular and in Batikot market to a lesser extent for a given shoulder height, cows fetched a higher price than bulls and oxen (Figures 3 and 4). The slope of the relationship between price and shoulder height appeared to be higher in cattle in Kunduz than in Batikot market, although statistical analysis is needed to confirm this trend. This is partly due to the presence of imported humped cattle (*Bos indicus*) in the Batikot sample. In Ghazni market there was more variation in the price and height data for all categories of livestock but this is not possible to explain using the information collected (Figure 5). In this market many of the cows and bulls (only three oxen were sampled) appeared to have a similar price for a given shoulder height which was measured to the peak of the hump. However, among the 30 bulls with a shoulder height over 150 cm, 15 of them had no hump which shows that there are some extremely tall cattle among the indigenous types.

The results presented in this section illustrate just how complex is the task of collecting livestock price information. This should be taken into account when deciding about

establishing a livestock market information service (LMIS), as mentioned in Section 8. It should be possible to establish a set of criteria to describe more precisely livestock being offered for sale, such as their weight, height at shoulder, age, finish and breed. The most important factor that determines the precision of the prices recorded is the motivation and thoroughness of the enumerator recording the information.

Figure 2. Prices of livestock in Kunduz, Batikot and Ghazni markets for 12 months starting April 2006 (each point is the mean price of 12 animals)



Note: Left and right price axes use different scales to amplify changes in prices of goats and sheep.

Figure 3. Prices of livestock in Kunduz market between April 2006 and April 2007 (There were no humped cattle [Bos indicus] in this sample. The three highest priced cattle in his sample were cows with calves.)

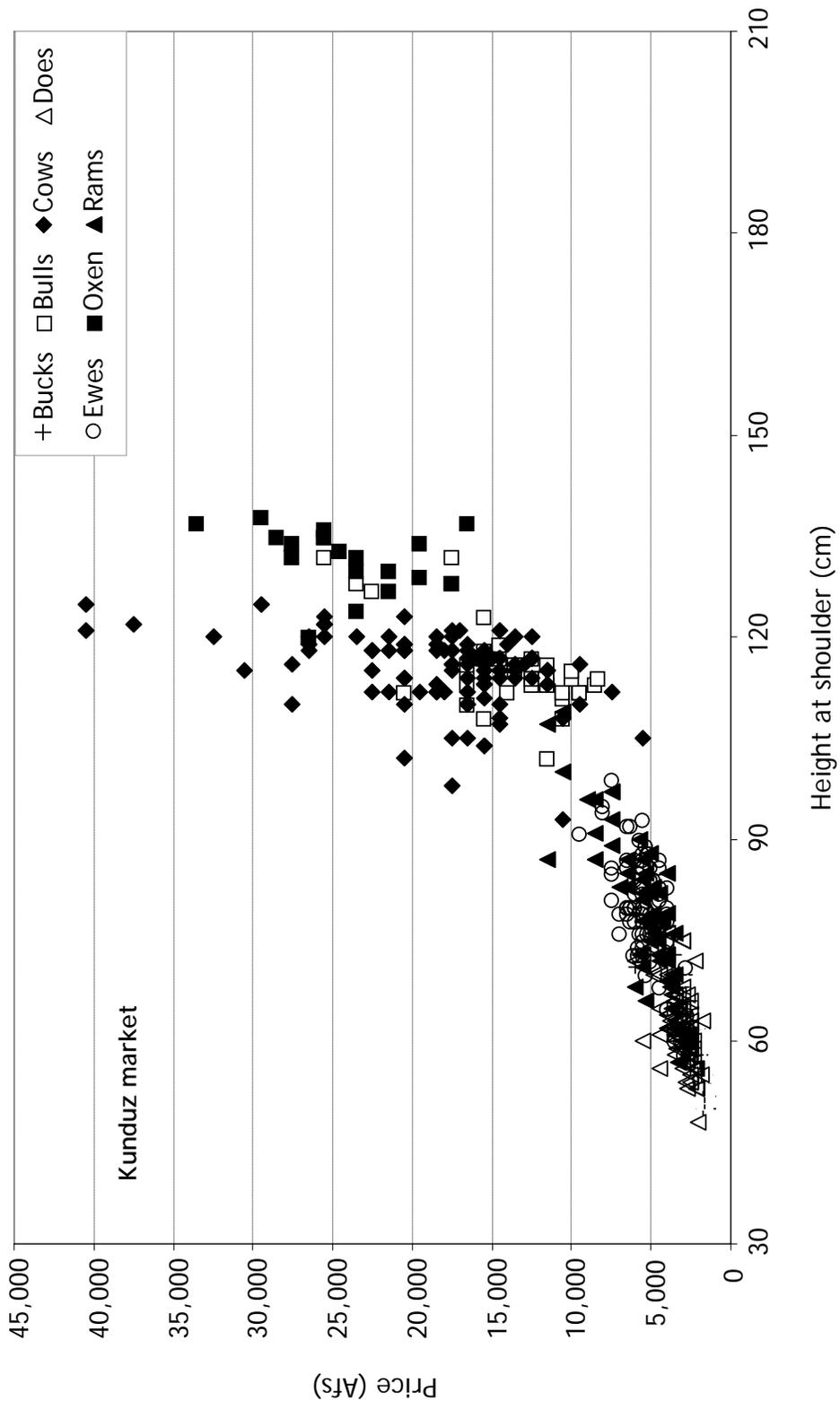


Figure 4. Prices of livestock in Batikot market between April 2006 and April 2007 (21 of the 27 tallest cattle had humps [Bos indicus]. Of the five highest priced cattle in this sample, three were cows with calves or two were pregnant cows.)

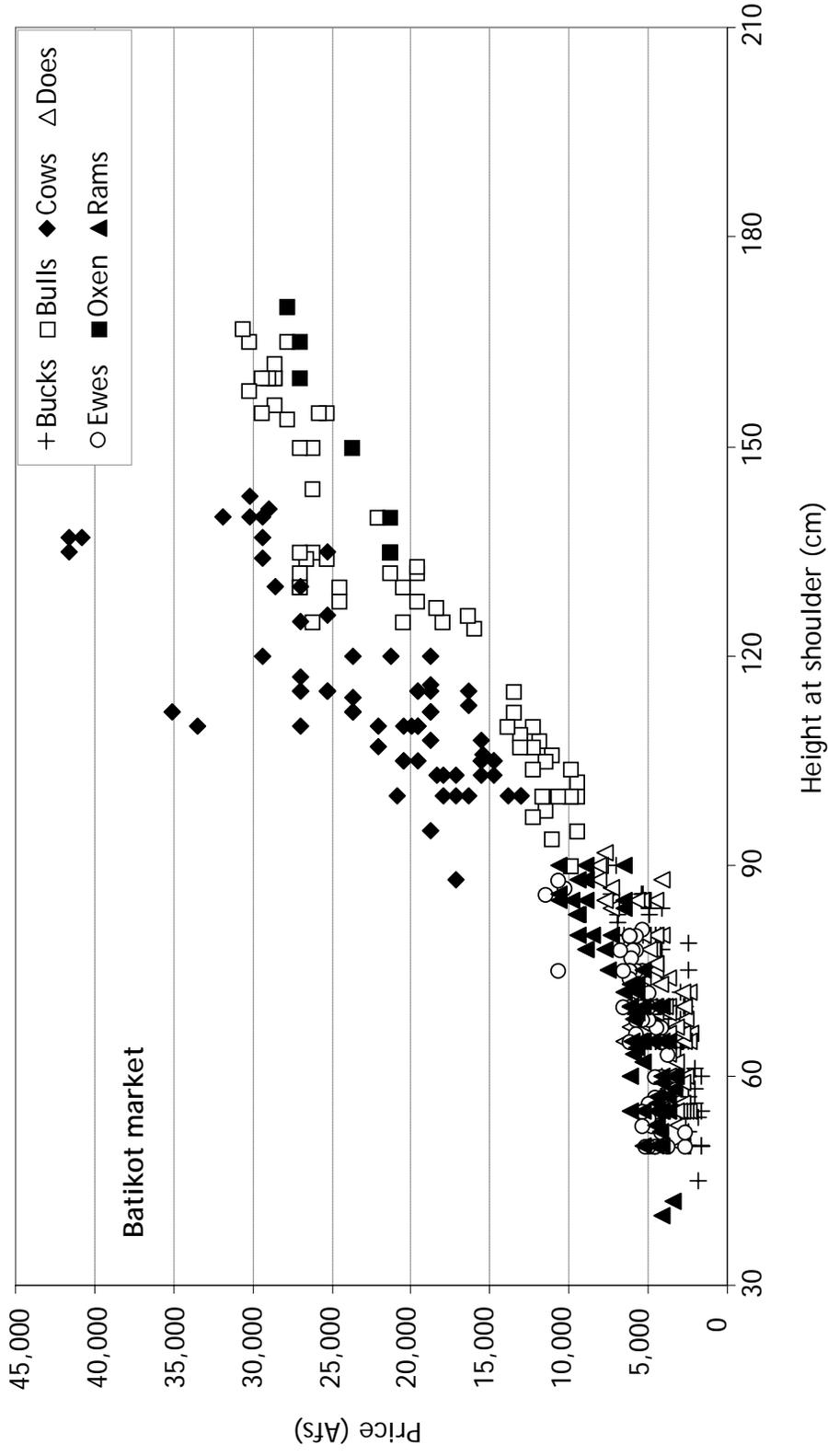
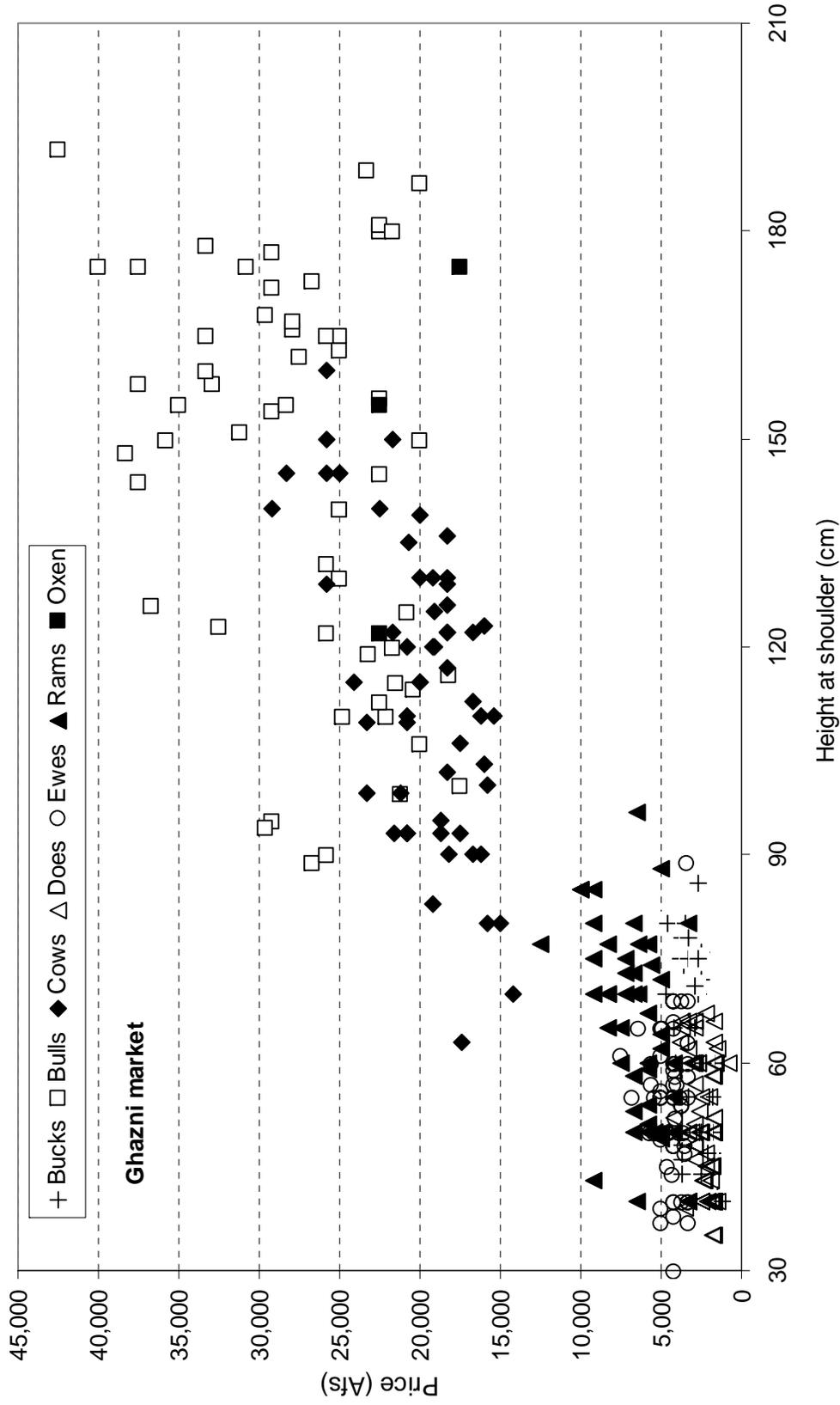


Figure 5. Prices of livestock in Ghazni market between July 2006 and April 2007 (In cattle with a hump [Bos indicus] the height was measured to the peak of the hump. This explains why there are some very tall cattle in Ghazni market.)



## 6. Livestock Markets

Many players operate along livestock marketing chains, selling and buying livestock that represent a huge combination of species, breeds, sexes, ages, weights, sizes and degrees of finish. Livestock markets are the main interface between livestock owners and butchers, with many intermediaries between them. Each time a transaction takes place, the price of the animal exchanged increases by a variable amount. A better understanding of the complex transactions that occur in these markets should help identify whether there are opportunities to improve marketing efficiency.

### 6.1 The main market players

There are six main players in livestock markets. Each player operates according to a somewhat different set of marketing goals.

**Livestock owners (*maldar*):** These are farmers and *kuchi* who sell livestock at a market that might be close by or even a day or more walk from their village or camp, or they sell livestock to traders who come to their village or camp.<sup>25</sup> These markets might be a small primary market such as at Marabad or Robat-i-Sangi, a secondary (intermediate) market such as in Kunduz or Selimi, or a terminal market such as the *ganj* market in Herat or the Company market in Kabul. Kunduz market is also a terminal market for finished livestock. Livestock owners tend to represent a higher proportion of the different market players in primary than in terminal livestock markets.

**Peri-urban farmers:** These are farmers and traders who buy livestock from livestock owners, dealers or other traders to grow and finish young stock or finish mature animals that are infertile or culls. Other buyers purchase lactating females with offspring, use the milk for family consumption and grow and finish the offspring. In both cases these buyers generally live at the edge of cities and towns within a few hours walk of the local market. They are invariably farmers from the irrigated area close to the market where there is a plentiful supply of feeds and access to other feeds in market towns. Examples are the irrigated areas close to Qarabagh, Kunduz and Selimi village. Growing and finishing also takes place around Herat and to some extent close to Kabul.

**Traders:** Traders are market players who buy livestock in villages and *kuchi* camps and in primary and secondary markets and transport them to another secondary or terminal market where the animals are sold to peri-urban livestock owners, dealers, other traders and butchers. Some traders also buy livestock for growing and finishing themselves.

**Dealers (*chupda*):** Dealers, who are sometimes called intermediaries or middlemen, are based in a market or they move between markets on different days, buying livestock from farmers, *kuchi*, other dealers and traders, only to sell them again to other dealers, traders or butchers. The margin they make on each transaction is an indication of their skill at identifying bargains and selling them at a good price. They also accept that sometimes their margin might be small or they might make a loss if they misjudged the value of an animal or it was later found to be sick.

**Commission agents (*dalal*):** Commission agents operate in the large provincial livestock markets visited but were not seen in the smaller ones. Their main function is to facilitate transactions between sellers and buyers for which they might charge a small commission. Some dealers consider them to be un-Islamic unless they adhere to certain strict rules, such

<sup>25</sup> The author met livestock owners in the western and northern part of the Central Hazarajat who 30 years ago walked their finished animals for a week to autumn markets in Kabul. Due to better roads which are open in summer, traders now visit remote villages and buy animals which are transported away by truck.

as not demanding a commission for their service or not expecting both the buyer and seller to offer one.<sup>26</sup>

**Butchers (*qasab*):** Butchers buy finished livestock from the other market players.

## 6.2 Movement of livestock in Afghanistan

Livestock are continually being moved over different distances in Afghanistan and are imported from Pakistan as traders identify marketing opportunities in different places.<sup>27</sup> This not only results in meat of different types being available in all but the remotest and poorest villages, but it also has major implications for the transmission of diseases such as Foot-and-Mouth Disease and Avian Influenza, to mention but two. Rebuilding major roads in Afghanistan eases movement of animals over long distances by shortening journey times, thereby reducing costs and stress on animals being transported. However, this also accelerates the movement of infected animals. The following section describes three examples of livestock movement encountered as part of this case study, one over a relatively short distance and two over long distances. There are other major livestock markets in the country, such as in Ghazni, Kandahar, Nangarhar and Mazar-i-Sharif, which serve as hubs for their respective regions, and as transit markets for livestock on their way to other regions (Figure 6).

**Short-distance movements:** These movements take place mainly within 100 km of markets such as Herat, Ghazni, Nangarhar and Kunduz which are close to the WOL Project's PRS. Owners either walk their livestock to a local (primary) market, such as to Robat-i-Sangi, where they are sold through dealers to traders from Herat or as far afield as Kandahar. In Kunduz Province, livestock owners from the three PRS in Qala-i-Zal District sell their animals in Ak Tepah market to traders from Kunduz or might take them directly to Kunduz



*Delivery of beef in Kandahar*

market. It is the main secondary market in the northeast to which animals coming from Kunduz, Badakhshan and Taloqan Provinces are transported. Many of them are grown and finished close to Kunduz and either purchased there by butchers or transported to terminal markets such as Kabul to the south or Mazari-i-Sharif to the west.

Traders transporting livestock reported few checkpoints on routes between the Turkmen border at Torghundi and Herat, between Selimi and Herat and between Kunduz and Kabul, but had to sometimes pay "chai poli"

<sup>26</sup> Van Engelen (personal communication) observed in Kabul's Company market that *kalantars* work with a group of say 12 trusted traders and butchers who "regulate" the transactions, including protection against non-payment by butchers. At a transaction a *kalantar* would assess the weight of the animal and guarantee that the butcher would pay in one week. Both the seller and buyer might pay the *kalantar* 5-10 Afs for this service, a small amount on a sheep worth 5,000 Afs.

<sup>27</sup> Dealers and traders in Herat and Kunduz said there were few movements of animals across the border with Iran, Turkmenistan, Tajikistan and Uzbekistan, although this finding was not verified. In 1976/77 sheep valued at \$33 million were said to have been unofficially exported to Iran (Khan and Iqbal, 1999). In the 1980s Iran started to import large numbers of sheep from Australia.

(tea money) to police at some places. As will be seen below, the main problem with checkpoints is in the south and east of the country.

**Long-distance movements:** For centuries there have been seasonal movements of herds belonging to *kuchi* across today's borderlands between Afghanistan and Pakistan although for some years now these movements have become more difficult. Movements of large animals take place over many hundreds of kilometres, with buffalo from as far away as Karachi and cattle from Lahore in Pakistan being moved to Kabul and Herat.<sup>28</sup> Most of the cattle coming from Pakistan are zebu (*Bos indicus*) as opposed to taurine (*Bos taurus*) cattle. Although the reports could not be confirmed, some cattle imported from Pakistan are said to have been originally smuggled across the Indo-Pakistani border.

Traders said importing buffalo and cattle from Pakistan started in the early 1990s and expanded during the Taliban government (1996–2001) because of better security and the onset of drought. The number being imported is said to be higher since the Karzai government took office in 2002. This is largely because of the recovery of demand for meat from a rapidly expanding human population, particularly in Kabul where people with the highest incomes are concentrated.<sup>29</sup> This, together with the shortage of meat from Afghan animals following the recent severe drought, resulted in red meat prices increasing over the past few years (Table 4).

The eastern trade route starts in markets in Punjab and the North West Frontier Province in Pakistan, from where cattle, buffalo and sheep are transported to the Tribal Agencies which have a long and uncontrollable border with Afghanistan. As this export from Pakistan is illegal the animals are smuggled into Afghanistan to avoid the official entry point at Torkham.<sup>30</sup> Thus, many animals are walked, sometimes for a few days, through the mountainous borderlands into Afghanistan. However some, particularly buffalo, come in by truck along remote roads and tracks. On the Afghan side customs formalities are completed and the animals proceed to Kabul by truck.<sup>31</sup>

Estimating wholesale margins made by traders of imported cattle and buffalo was difficult but one trader estimated that he made 16,000 Afs on a truckload of 20 cattle sold for 480,000 Afs (Table 2). He mentioned in particular the charges they incurred once the animals reached Afghanistan. First there was an official customs duty of 14,000 Afs for which a receipt was issued. To this was added an unofficial charge of 6,000 Afs. These customs charges had increased substantially over the past five years from about 4,000 Afs during the Taliban government. The other major cost was transport, amounting to 54,000 Afs. The remaining 30,000 Afs is unaccounted for, but traders said police were extracting 500 to 1,000 Afs at each of the numerous check posts between the border and Kabul. Probably the wholesale margin was higher than these traders reported.

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<sup>28</sup> Some female imported buffalo are bought for milking in the east of Afghanistan (Lee, personal comment).

<sup>29</sup> Since 2002 Afghanistan's population has increased rapidly from about 20 million to about 28 million and some 3 or 4 million refugees have returned since early 2002. Over the same period there are claims that Kabul's population has increased by at least 1.5 million and today stands at about 3.5 million.

<sup>30</sup> These exports are said to be prohibited by the Pakistani authorities who claim, according to one trader, that domestic meat prices were, to some extent, increasing because of these exports. If this is true the authorities were not taking serious steps to stop it. The Pakistani Frontier Corps were said to sometimes confiscate animals but release them on payment of a substantial bribe.

<sup>31</sup> David Mansfield (personal communication) adds: "There is a steady flow of cattle being trucked through the border between Pakistan and Afghanistan at Gandau [in Nanagarhar Province]. Cattle are then transported through the district of Goshta to Kama District where they are unloaded at a number of permanent pens near the district centre. These animals are subsequently sold onto traders from Jalalabad and Kabul. It is reported that transporting cattle through Gandau and along the Goshta road incurs a cost of 1,000 PKR [per truck] to the officials on the Pakistani side of the border, 500 PKR to Afghan officials at the Goshta customs and numerous 'payments' to the 4 to 5 check posts in Kama en route to Jalalabad. It is claimed that transporting cattle from Pakistan to Afghanistan via the official route at Torkham can cost 5,000 PKR per head."

**Table 2. Illustration of wholesale margin on imported cattle sold in Kabul's Company market**

Based on truckload of 20 cattle	Afs
Purchase price	360,000
Less all costs	104,000
Wholesale margin	16,000
Wholesale price	480,000

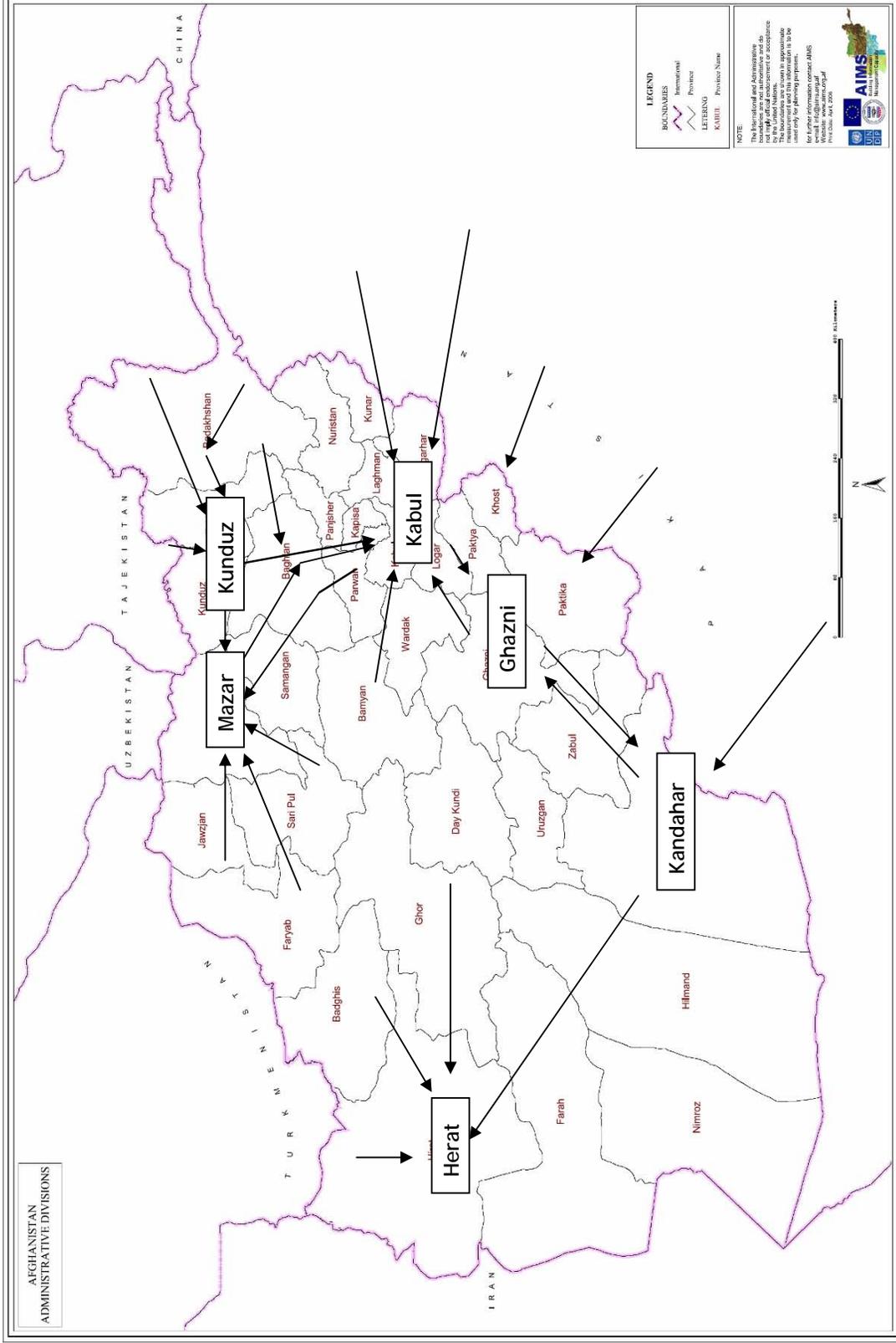
Whether margins are today as low as 400 to 800 Afs per head for imported buffalo or cattle and whether they were really up to three times higher five years ago is unclear. Wholesale margins are probably lower now because of increased competition from imported frozen meat and higher transport costs. The death of one animal during the journey would turn the small profit into a loss on a consignment of 20 cattle. Evidently the informal charges, which might have amounted to 36,000 Afs, or 7.5 percent of the wholesale price, were squeezing traders' margins to the limit. This implies that their margins in the past were quite generous. The traders were

well aware that increasing wholesale prices would lower demand for red meat in today's competitive market.

Afghan traders, who finished sheep in refugee camps near Peshawar in Pakistan, were interviewed in the market for small ruminants, which is a few hundred meters from the main Company market in Kabul. They had been smuggling sheep into Afghanistan for the past six years. Despite complaining about the costs of bribes on both sides of the border and the many check posts, they claimed that business was expanding. However, they too realised that they could not protect their margins by raising wholesale prices to cover these informal costs since demand would suffer.

A second trade route passes through Quetta, 100 km from the Afghan border in Pakistan. Afghan traders buy cattle and buffalo in Quetta and transport them to the Afghan-Pakistan border at Spin Boldak and on to Kandahar, the main regional livestock market. Some of the animals continue west to Herat, about 750 km from Quetta, and some move north to Ghazni. Traders who regularly move buffalo to Herat were interviewed for this case study. Their business started during the later years of the Taliban government. During the 12 months to April 2007 about 10 traders imported between 10,000 and 20,000 buffalo to Herat. They purchased them in Quetta for 25,000 to 40,000 PKR each (21,000 to 33,000 Afs) and claimed their margin after selling them in Herat market was as low as 500 Afs but not more than 2,000 Afs. There were no particular difficulties completing the formalities on either side of the border at Spin Boldak or obtaining transit papers from Afghan Customs, which cost about 1,000 Afs per head. Nor were there problems at check posts between the border and Shindan, a town in Herat Province. From there to Herat, a distance of about 100 km, they complained that paying bribes to police cost them 20,000-24,000 Afs on a truckload of buffalo possibly worth 650,000 Afs. The traders' margin per buffalo was 3 to 4 percent of the wholesale price in Herat market, but this margin could not be independently verified. This is similar to the traders' margins on imported cattle sold in Kabul (Table 2). The informal costs were estimated at about 3 percent of the wholesale price which is half the level reported for cattle imported from Pakistan to Kabul.

Figure 6. Major movements of livestock to intermediary and terminal markets in Afghanistan (Source of map: AIMS, Kabul)



### 6.3 Leasing the marketplace

Apart from small markets, such as at Marabad where no rent was charged for the open space behind the village bazaar, at larger markets the land was leased from the government, often at a high rent (Table 3).<sup>32</sup> Municipalities leased the sites on an annual basis to the highest bidder but often it was the same lessee who won the bid for 10, even 15 years. Moreover, the rents were said to increase substantially from year-to-year for no apparent reason. In none of the markets visited had the lessee made any improvements to the sites which were in dire need of better drainage, shelters, a perimeter well, veterinary services, etc. Indeed, in winter when there is rain and snow the conditions are atrocious. At the official municipal Company market in Kabul, the traders' association paid 150,000 Afs from its own funds to have the area for cattle and buffalo levelled and surfaced with coarse gravel. The site for small ruminants was just an open space between houses, again with no perimeter fence or wall. Hazarar traders dominate this market.

Traders in the Company market complained about the lack of housing for animals that might take up to 10 days to sell. In fact, traders claimed they were harassed by police who wanted them to move cattle and buffalo from the official marketplace to another site where they would be charged an additional 20 Afs per head for overnight accommodation. This cost and feed charges of 200 Afs per day (mainly wheat straw costing 7-10 Afs per kg) could turn a small margin into a loss, especially if it took more than two days to sell an animal.

In general, market players were annoyed at having to pay market fees. In some places the seller taking an animal into market paid the fee, whereas in others the buyer paid the fee on leaving the market with an animal. Fees were in the range of 3-5 Afs for sheep and goats and 10-15 Afs for large ruminants. With the exception of Kabul Company market, receipts were not issued on payment of the fee. These might seem small in relation to the value of an animal but it was the total absence of any benefit from paying fees that irritated sellers and buyers.

### 6.4 Market volumes and price information

Due to the difficulties involved, as well as time limitations, no attempt was made to estimate market volumes. One recent study estimated the number of livestock slaughtered in Kabul (Landell Mills, 2007). However, traders were keen to air their views about changes in the livestock market over time and the state of the market in 2007.

In the four markets visited in Herat Province, traders and dealers said markets were fairly quiet in April 2007 since the precipitation had been good and many livestock owners were retaining their animals which were taken to common grazing areas. These areas were said to be better than in 2006 when winter precipitation was poor. As a result there were many more animals in the market in April 2006 resulting in depressed prices. Numbers of animals traded varied widely according to the season, between one trader or dealer and another and between

**Table 3. Rent said to be paid to municipalities by lessees of selected market places\***

Name of market	Annual rent (Afs)
Kabul Company	8,900,000
Herat <i>Ganj</i>	1,200,000
Kunduz	2,500,000
Qarabakh	450,000
Selimi	105,000
Robat-i-Sangi	70,000

\* Large markets are open daily and smaller ones (Robat-i-Sangi, Selimi, Kunduz) twice a week.

<sup>32</sup> In early 2005 a rent of 15.5 million Afs was quoted for the Company and Tia Maskan livestock markets (Thomson et al., 2005). The rent for the latter was probably more than half of this because it is located in a prime real estate area in Kabul. Today its operations are much reduced and the Municipality does not consider it to be an official market. There are three other unofficial livestock markets in Kabul.

days. One trader in Herat market said he sold 20-30 sheep each week in April and 80-100 sheep each week in the autumn.

One question often asked is: "Would livestock owners increase their earnings if they were better informed about current market prices?" This implies that dealers and traders exploit livestock owners because they are better informed about current prices than livestock owners. This is probably the case if a livestock owner lives in a remote place which makes it more convenient to sell to traders who come to their village than to walk or truck a few animals to market. Thus, to some extent farmers agreed with the question, but they also said that they were continuously moving between villages and sometimes visiting livestock markets. This helped them keep each other informed about prices. In addition, like all players in the market, they were well aware of seasonal price cycles and the value of different classes of livestock.

The mobile phone network now covers all the major cities and towns in Afghanistan and by knowing prices in different markets, traders can take informed decisions to purchase animals in one market and transport them to another. The extent to which mobile phones are now being used to spread market price information between traders deserves more attention. Farmers and *kuchi* who live in areas with mobile phone coverage have an advantage over those livestock owners still located outside the areas covered when it comes to finding out about prices.

## 6.5 Competition in the marketplace

Remarks such as "market agents (dealers and traders) are the main culprits for the low prices paid to farmers" are often heard. As expected, the situation is quite complex in that the different market players had different opinions about the matter. The response of livestock owners in remote areas was noted in the last section. In the large markets such as Kabul, Herat and Kunduz, there might be 1,000 players operating and half of them might be dealers and traders, although not all of them are present on a particular day. The rest would be livestock owners who are present in larger numbers in autumn than in winter, for example. Such numbers result in considerable competition between players, which is usually good natured. About 100 dealers operate in Selimi market, whereas in a small market such as in Marabad there were only six dealers and three traders. Some of the dealers and traders move from market to market looking for bargains. This also enables them to see how supplies, demand and prices are changing.

To some degree there is an etiquette applied in the marketplace. Transactions take place on a first-come-first-served basis, with other players observing the proceedings once bargaining has started between a seller and buyer. On the other hand, there were said to be some aggressive dealers in the markets who were more successful at cajoling sellers to part with their animals at a bargain price. Arguments did arise which were usually settled through the mediation of a representative of the dealers. However, in general, livestock owners felt they were not under pressure to sell but if they needed to they had little choice but to accept a lower price.

Bargaining between sellers and buyers of livestock that leads to a transaction is a complex process which could not be examined in detail in the time available. Suffice to say, a seller takes into account many factors to arrive at an expected selling price of an animal and at the end of the bargaining session agrees to a somewhat lower actual selling price. This is the same as the actual buying price paid by the buyer at the end of the bargaining session during which he gradually increases his expected buying price which is derived by taking into account a similar set of factors. The importance given to these factors varies somewhat between the seller and buyer and includes the value of the animal, market prices at the time, the urgency with which the seller needs cash and how much cash the buyer has available to make the purchase.

Dealers are always searching for a small profit. They spot an animal or animals and bargain with the seller until an agreed price is reached. Then they wait for another buyer to come along who might be a farmer, trader or butcher interested in one or more of the animals on offer. Once agreement is reached about the price, the animal or animals change hands. In this way the dealer makes a small profit and animals move along the marketing chain, some passing to another dealer whereas others are purchased by a farmer, trader or butcher and leave the market. Gradually there are fewer and fewer animals on offer and a time is reached when the few remaining sellers either agree to lower their expected price to ensure a sale, or, if they have the choice, they take the animals away and bring them back another day or transport them to another market. This puts them in a stronger bargaining position than the seller from a distant village.

Some livestock move directly from a seller to a terminal buyer without going through a dealer, such as the butcher buying a well finished sheep from a *kuchi*. Conversely, other categories of animals are more likely to pass through the hands of two to four dealers before reaching a terminal buyer who takes them away from the market. It is hypothesized that sellers of finished animals achieve a better margin than sellers of these other categories of animals. If the hypothesis is true, this gives the grower/finisher an added advantage.

At first sight these multiple transactions might appear to be a serious inefficiency in the marketing chain since at each transaction the price of the animal increases by a small amount. In other words, would it be better to have fewer players operating in livestock markets? It is difficult to answer this question in the absence of quantitative information showing to what extent prices are inflated by having multiple transactions. A persuasive dealer who spots an animal on offer below its market value – because the seller is not aware of its worth, is led to believe prices are lower that day, or is desperate to sell – secures a quick buy and makes a small profit. He then sells it to another dealer or might try for a large profit by selling it to a terminal buyer. Thus, among the numerous dealers operating in markets there are the astute ones who make a good profit more often on average than those who make smaller margins or sometimes a loss.

In the present competitive meat market there is downward pressure on red meat prices and therefore to maintain sales volumes and margins, butchers resist paying above a certain wholesale price and traders and dealers know this. However, there is more scope to put downward pressure on livestock owners selling animals since ultimately they have to sell their animals. It is therefore suggested that if there are losers due to having so many intermediaries in the market, these are the farmers and *kuchi* selling livestock who have limited bargaining power. Thus, given that wholesale prices are relatively fixed, another hypothesis to be tested is that the original livestock sellers would get higher prices if wholesale transaction costs could be reduced by having fewer dealers.

## 6.6 Dealers' and traders' margins

Margins made by dealers and traders varied widely and as they said, "included an element of luck". Imported sheep seen in Kabul's Company market worth 4,500 Afs made traders a margin of 200 Afs, whereas sheep worth 3,000 Afs in Marabad market earned dealers 50-200 Afs. A trader, who purchased sheep at the Torghundi market on the Turkmen border north of Herat and sold them in Herat *ganj* market, expected to make 150-200 Afs on each cull ewe sold for 3,500 Afs. The margin given by a dealer in Robat-i-Sangi market was within the range for the markets mentioned above. These margins represent between 2 and 7 percent of the wholesale price. In the case of cattle at Kabul Company market, trader margins were 400-800 Afs for imported cattle worth 24,000 Afs; 1,000-2,000 Afs in Robat-i-Sangi market for cattle worth 20,000 to 30,000 Afs; and just 200-300 Afs on an ox

worth 20,000 Afs in Marabad. The range in these margins for cattle was from 1 to 8 percent. The low margins mainly relate to transactions between two dealers who quickly earn a 100 Afs on a calf; the larger margins concern a dealer who found some bargain cattle and sold them at a good price to a trader who in turn transported them to another market.

## 6.7 Effects of war and drought

Traders often referred with nostalgia to the Daud government of the 1970s prior to the Revolution – the term which refers to the invasion of the Soviet Army in 1979. At that time herds in the north and west were larger, feeds were much cheaper, feeding costs were lower as they used less feed in winter and grazing was better.<sup>33</sup> During the war with the Soviets in the 1980s large numbers of livestock were stolen and killed, but the various censuses made during the 1990s suggest that by 1998, the year before the severe drought started, numbers had recovered to pre-Revolution levels. The Taliban government of 1996 to 2001 was associated with stability and security, and traders faced few problems transporting livestock along the trade routes across the south and in the east of Afghanistan. On the other hand, the country was in the grip of severe drought in 2001 when the Taliban were ousted. This was followed by the early years of the Karzai government, when economic revival started. However, the slowdown in economic activity since early 2005 was mentioned on many occasions. Evidence for this was fewer jobs, which reduced income.

The other major influence on the market was the high frequency of drought during the past 10 years. This had many negative effects on the livestock sector, the most obvious being the decline in herd sizes since the recovery during the 1990s. Restocking was progressing only slowly in many places due to the highly variable precipitation across the country. Robot-i-Sangi is located in a farming area dominated by rainfed crop production and several years with poor or failed crops left farmers with little or no income to purchase ewes. One consequence of this was seen in Sir Zar village where there are twice as many goats as sheep in the village since goats are cheaper to buy than sheep, whereas in the past sheep were the dominant species. Farmers' preference was to own sheep simply because lambs were worth twice as much as kids.

## 6.8 Borrowing money and lack of cash

Lending money is common in livestock markets but the few remarks made here do little justice to this important and complex topic. One system involves a simple "loan between friends" of a few thousand Afghans, up to as much as 20,000 Afs over 10 days to a month at no or a nominal interest.<sup>34</sup> This is common between traders who know each other well. The second system called *muzarebat* (a partnership) is widespread in Afghanistan. It involves a somewhat wealthier livestock owner giving an animal or two to a poorer farmer who cares and feeds the animals for a given period at his own cost. After a few months the livestock are sold and the profit or loss shared between the owner and farmer who cared for the animals. Traders in large markets such as Kabul and Kunduz borrowed large sums averaging \$3,500 from family and friends (Thomson et al., 2005).

Cash shortages limited turnover of traders or the number of animals in a batch that a farmer could grow and finish. It also discouraged other farmers from entering this business. Micro-credit schemes were less popular because of high interest rates and the

<sup>33</sup> A trader in Robot-i-Sangi market mentioned the increasing competition for straw from brick makers in Herat as one reason why straw prices were increasing so fast.

<sup>34</sup> Jonathan Lee (personal communication) points out that the charging of interest is forbidden by Sharia law. However, he mentions that the topic is extremely complex and in fact lenders often charge "interest" on loans even if this is not the term used to describe it.

relatively short duration. This resulted in clients reluctantly participating in schemes but achieving limited benefits. Many farmers who wanted to grow and finish a few animals were unwilling to join the schemes. One scheme in the west of Afghanistan loaned farmers 7,500 Afs for six months at an interest rate of 1,000 Afs over this period, equivalent to 13 percent. Monthly repayments including interest started after one month, which borrowers found to be unjust since they might only sell the animal after five months. Problems faced

*“I am not happy with this costly loan but there is no other way.”*

— a trader in Kunduz

were the small size of the loan which was just enough to purchase three weaned lambs, a rigid repayment plan for a product that could only be sold several months later, and a high interest rate. A scheme in Kunduz involved loans of 75,000 Afs over 12 months, with monthly repayments of 7,375 Afs (of which interest is 1,125 Afs, or 18 percent annually).

## 7. Butchers and the Meat Market<sup>35</sup>

### 7.1 Context

Across Afghanistan the meat retail sector is dominated by small family butchers selling meat from sheep, goats, cattle and buffalo slaughtered every day or every other day.<sup>36</sup> There may be a hundred butchers in Kunduz, several hundred in Herat and possibly a thousand in Kabul. However, because so many are not registered with the municipalities it is difficult to give more precise estimates of numbers.<sup>37</sup>

Meat is sold from retail outlets that might be street vendors using barrows or butchers using open- or glass-fronted shops. Other butchers have well maintained and modern premises which are becoming more common in the main cities. The rudimentary open shops are equipped with simple scales on a wooden bench and a wooden chopping block. Others with access to electricity may have a cool cabinet to display meat, a deep freeze to store it overnight and a mincer. Often, meat hangs in the open, sometimes covered by plastic sheet or cotton cloth, especially in summer to protect it from dust and flies. Imported frozen meat started to appear in Afghanistan in 2002. It is mostly sold by grocers and street vendors who are seldom, if ever, registered as butchers with the municipality and who stack the frozen meat in cartons in the open beside the street.<sup>38</sup>



*A shop on Butcher Street in Kabul*

The following section examines the main factors that affect the demand for red meat, such as prices and seasonality in demand, competition among butchers, competition from imported frozen meat and from newly opened outlets, and changes in demand over time. The section ends with some remarks about the slaughtering of livestock and hygiene inspections of butcher shops. No attempt is made here to forecast future demand for meat,

<sup>35</sup> The terminology used in this section for various livestock species is sometimes rather loose as it is difficult to estimate an animal's age from its carcass size. The term "veal" as applied in the West is inappropriate for Afghanistan and the region. For this reason the term 'calf' is used to refer to carcasses of 50-70 kg.

<sup>36</sup> Jonathan Lee (personal communication) makes the point that "in most rural villages the *qasab* will only slaughter an animal at the most once or twice a week. They will inform the population of their intention, usually through the *shura*, gauge the amount of demand and then slaughter accordingly".

<sup>37</sup> The Municipality in Kabul said it has a list of 750 registered butchers who have an annually renewable permit to trade. However, they concede that there may be at least 250 butchers who are not registered. "The Butchers' Association [in Kabul] claims to have 2,600 members, but, based on interviews, it is estimated that there would be around 600 butchers" (Landell Mills, 2007).

<sup>38</sup> One vendor selling what he called imported frozen "beef" — the label called it buffalo meat imported from India — returned any unopened 4.5 kg blocks of vacuum packed meat to his supplier for overnight storage in a refrigerated warehouse and collected them again the next morning without charge. However, some of this meat would have thawed out during the day and been refrozen at night, only to thaw out the following day.

although such an exercise would be extremely useful when revising policies for the livestock sector.<sup>39</sup>

## 7.2 Meat prices and seasonality in demand

**Table 4. April 2007 retail prices of fresh and frozen meat<sup>(i)</sup>**

Type of meat	Afs/kg
Mutton and lamb <sup>(ii)</sup>	200 - 240
Beef-without-bone	145 - 180
Beef-with-bone	120 - 160
Imported frozen 'beef' <sup>(iii)</sup>	90 - 95
Imported frozen chicken <sup>(iv)</sup>	70 - 75

<sup>(i)</sup> This is the range charged by butchers interviewed in Herat, Kabul and Kunduz.

<sup>(ii)</sup> Goat meat is priced a few Afghans below mutton as it is less popular. Butchers are known who mix goat meat with mutton.

<sup>(iii)</sup> Most of this may be buffalo meat.

<sup>(iv)</sup> Live chicken imports from Pakistan are officially banned due to outbreaks of Avian Influenza, but some imports are continuing.

Being the favourite meat of Afghans, mutton is the most expensive meat, followed by beef; imported frozen meat is the cheapest (Table 4).<sup>40</sup> There were indications that meat prices were 10-20 Afs per kg lower in Kunduz than in Kabul. Meat from intact rams is 10-20 Afs per kilogram above that of ewes and castrates.<sup>41</sup> The fat from the fat-tail of sheep is sold at slightly below the price of beef-without-bone. These red meat prices are 10-30 percent higher than they were in February 2005 (Thomson et al., 2005). A retail price of 125 Afs per kg for mutton was quoted for June 2002 in Kabul (ICARDA, 2002).

Since the early 1970s, during the reign of King Zahir Shah, official retail prices of meat were announced by the municipality in all three cities visited. The practice ended in May 2006 in Kabul and March 2006 Herat.<sup>42</sup> They are still

being applied in Kunduz although butchers pay little attention to charging these official prices.<sup>43</sup>

Retail prices of meat vary according to season, with peak winter prices exceeding the lowest summer prices by 80-100 Afs per kg in the case of mutton, but there is evidence that this range is lower in Kabul, probably because of the higher and less seasonal demand. Butchers had two explanations for this seasonal price cycle. First, the supply of livestock to terminal markets, and hence prices in these markets, varied according to season (as discussed above). Second, consumer demand for meat is also seasonal, partly in response to the seasonal cycle of retail meat prices and partly because meat consumption is higher in winter than in summer. Thus, demand and therefore retail prices increase at the start of winter (November). This is the time when consumers with the cash like to buy large, whole carcasses (30-40 kg) from which they prepare *landi* for the winter. Prices remain high until

<sup>39</sup> Thomson et al. (2005, page 33) present estimates of the value of the mutton market in 2010 at two contrasting income elasticities.

<sup>40</sup> In the United Kingdom the term "mutton" was abandoned in the mid-twentieth century in favour of "lamb" due the changes in consumer preference as prosperity returned. However, because mutton is still the term used in Afghanistan and Pakistan, this case study uses it for sheep meat from animals of all ages and both sexes, except when specific mention is made of lambs which are below six months of age.

<sup>41</sup> Consumers identify male animals from the male genitals attached to carcasses.

<sup>42</sup> In Kabul the Department of Marketing in the Municipality and representatives from several other departments decided on the price of mutton, calf and beef with and without the bone, and two or three times a year gave a list of official prices to butchers. They were supposed to display these prices but often did not. Inspectors periodically checked that butchers were charging consumers these official prices and had powers to close butcher shops until a fine was paid if consumers were over-charged. But the regulation was widely ignored. In summer 2005 (1384) in Kabul the official prices of mutton, beef-without-bone, and beef-with-bone were 140, 100 and 80 Afs per kg, respectively, and in spring 2006 (1385) official prices for these meats were 155, 115 and 90 Afs per kg, respectively. These are well below the meat prices shown in Table 4 (which refer to April 2007) and even below those in January 2005 (Thomson et al., 2005).

<sup>43</sup> In June 2007 in Kunduz official and butchers' prices were 140 versus 180 Afs per kg for mutton with bones and 100 versus 120 Afs per kg for beef with bones. The official price of calf was 130 Afs per kg with bones. Official prices are updated every month.

late spring (May) when they start to fall as consumers begin buying vegetables again which become more plentiful and cheaper as summer progresses.

### 7.3 Sources of competition

Butchers are dispersed throughout the three cities, but at some locations two, four, 10 or as many as 20 are found close to each other, sometimes in a row each side of the street (such as Kabul's "Butcher Street"). This suggests that there is considerable competition among them, but it is unclear whether this really is the case. Indeed, they appear to voluntarily agree to charge similar prices and frown on a butcher who undercuts the others close by. Indeed, meat prices charged by long established individual butchers, whether alone in one street or in clusters, only vary by a few Afghans.

Even if clusters of red-meat butchers in different neighbourhoods sometimes operate as a local monopoly, for the past five years they have faced stiff competition from sellers of imported frozen chicken (see below) and frozen "beef", an unknown part of which is actually buffalo meat. Within the last year, an entrepreneur in Kabul has been officially importing frozen beef from Pakistan which is sold to other butchers for 130 Afghans per kg (with bones) and for 150 Afghans per kg from his own upmarket shop in a new residential block.<sup>44</sup> Other entrepreneurs are no doubt waiting to see how this trade evolves. It might expand if butchers find they can lower their retail prices but as one traditional butcher said, his customers prefer fresh to partially frozen meat.

*"How can a man labouring for 100 Afghans a day afford to buy beef costing 160 Afghans per kilo?"*

— an irate butcher facing a severe downturn in sales

Newly established butchers are another source of competition. Some operate from shipping containers away from the city centre and even from ground floor shops in recently constructed office blocks. For example, in Herat vendors who used to sell meat on open barrows were forced off the streets by the Municipality and now trade from shops in a new office block in the Wazir Kandahar area. By cutting their operating costs to a minimum — low or no rent, no cold storage — these vendors sell meat at 20-40 Afghans per kg below the prices charged by long established butchers. These butchers were reported to buy the best cuts of meat at a lower price which they then resold at the regular price. Long-established butchers also face competition from butchers that open new and modern premises nearby. One of them in Herat said that eight years ago there were just two outlets close to his shop but today there are 12, with six of them opening in the past three years. If his were the only shop, his estimated daily takings would be 40,000-50,000 Afghans but with this increased competition they are down to 5,000-6,000 Afghans.

### 7.4 Sales volumes and retail margins

Although butchers willingly revealed volumes of meat sold, estimating retail margins on sales was difficult at one-off interviews. Sales volumes were highly variable between butchers and were seasonal. In April 2007, a butcher in a fairly prosperous area of Kabul

<sup>44</sup> This entrepreneur started importing meat because prices were higher in Kabul than in Pakistan. He said this was due to the depressed Afghan livestock sector which was unable to supply an increasing number of families in Kabul who could not afford red meat. After obtaining approvals for this trade from the Pakistani and Afghan authorities, the entrepreneur identified a Pakistani contractor who buys the animals, supervises the slaughter and carcass inspection in an abattoir in Peshawar, and arranges documents to transport the carcasses in refrigerated trucks to the Pakistani/Afghan border at Torkham. There, Afghan customs levy a 6.5 Afghans per kg import duty and provide documents which allow the same trucks to transport the meat to Kabul without facing undue delays at check posts along the way. The meat is then transferred to refrigerated storage before being sold to butchers. In April 2007 this entrepreneur was importing 2 to 4 MT of frozen beef carcasses each week. His main problem was collecting immediate payment from butchers on delivery of meat.

sold meat from a good-sized calf carcass per day, another sold eight sheep a day. A butcher operating in Butcher Street – two rows each of about 10 shops near the commercial area of Kabul – claimed to be selling 10-15 sheep each day. At the other extreme, a butcher trading from a 20 foot container said his mutton sales varied between one sheep each week in summer to one each day in winter. In fact, sales can be so low that two or three butchers divide a beef carcass between them to make sure that the meat is sold in a day or two. In Herat, one butcher had sold meat from four sheep and two calves during the previous week, and one in Kunduz had sold four or five calves in that time. Nearly all butchers reported a decrease in sales over the past two years and some said sales during the past three months had fallen particularly fast. Retail margins were also highly variable and difficult to estimate and verify.<sup>45</sup> Two butchers mentioned a margin of 5-10 Afs on each kilogram of beef sold from a 100 to 120 kg carcass. Another one said the margin of 10 Afs per kilogram applied to cattle imported from Pakistan, whereas the margin on Afghan (*watani*) cattle was close to zero.<sup>46</sup> The margin on mutton sales might be 300-400 Afs for a 20-40 kg carcass. A butcher in Kunduz who was selling as many as four or five calves a week was struggling to cover costs, saying he had just paid his annual rent of 120,000 Afs in advance.<sup>47</sup>

Given the well-established high income elasticity of demand for red meat, butchers selling mutton and beef were asked why they did not lower their prices to increase sales.<sup>48</sup> They responded that they had to protect their margins which were susceptible to the wholesale price of an animal. Indeed, there was evidence that butchers, to protect their margins, increased retail prices as soon as wholesale prices increased, knowing full well this might lower sales (Box 5).

**Box 5. Meat retail prices respond quickly to changing supplies in livestock markets**

Good winter rains and snowfall during winter 2006-07 raised demand for calves and lambs in April 2007 and prices were firm, as in 2006. As a result butchers found fewer animals in the market, wholesale prices increased, butchers increased retail prices to protect their margins, and their sales went down. Then, when the spring rains failed the reverse happened – farmers stopped buying calves and lambs for growing and finishing or even sold those they had purchased earlier. As a result whole-sale prices decreased and therefore butchers could lower retail prices as well.

Retail margins on sales of imported frozen meat were said to be “a few Afghanis” per kg. In the case of frozen chicken, the margin might be about 5 percent and for frozen beef 3-4 percent. This makes the daily earnings of one vendor selling 4-5 kg frozen buffalo beef each day very low, although he was probably one of several relatives each earning a small wage. The importer of frozen beef from Pakistan said his margin was just 3 Afs per kg on a weekly turnover of 2 to 4 MT.

<sup>45</sup> The retail margin is defined here as the revenue from the sale of all parts of the carcass minus the wholesale price of the live animal. However, a few hundred Afghanis in the case of small ruminants and a few thousand Afghanis in the case of large ruminants are earned from selling the hide, skin of sheep and goats, bones of cattle and buffalos, head, feet and internal organs. This income can represent the only profit from the trading of a butcher if his margins on the sale of meat are low. Additional variable costs are market fees, slaughtering of the animal and transporting the carcass to the butcher shop. These might total 50 Afs for small stock and 200 Afs for bovines. Other costs include electricity, rent, and depreciation on fixed items (refrigerators). Labour is not considered here as a cost since most butchers are run by family members. These multiple sources of income and costs make it difficult to estimate retail margins.

<sup>46</sup> Butchers can easily identify cattle imported from Pakistan, usually because they are larger and better finished than Afghan cattle, a finding confirmed by the WOL project’s market price monitoring work. This makes them a good buy because they yield more “meat”. One butcher said that by the time these imported cattle reached Kabul their wholesale price was only marginally less than that of Afghan cattle, and implied that traders were exaggerating their costs. On the other traders complained that their margins were very small because of all the taxes and bribes they had to pay to transport cattle from the border to Kabul (see main text). This point illustrates the difficulties of quantifying margins.

<sup>47</sup> At a beef-with-bone price of 150 Afs per kg and sales of 500 kg “meat” per week, it would take this butcher several months to pay for this annual rent.

<sup>48</sup> The term “high” is used here since it is difficult to give a more precise value. Thomson et al. (2005) cite income elasticity values from the international literature and estimates for Afghanistan.

## 7.5 Falling meat demand since 2002

The meat retail sector, like so many sectors of the economy, continues to face many challenges since the fall of the Taliban government in late 2001. As well as competition from newly established outlets, butchers in Kabul explained the fall in demand for red meat since April 2006 as being due to lower earnings of urban families, resulting from fewer job opportunities. The double figure growth of the national gross domestic product between 2002 and 2005 shows that average consumer earnings were still growing. If this slowdown is more than a temporary phenomenon it will affect the meat retail sector.

Efforts to rebuild Afghanistan's economy started in 2002 and this opened its borders. External suppliers were quick to identify marketing opportunities. One such opportunity resulted in the appearance of cheap, imported frozen meat across Afghanistan. The USA and Brazil started supplying frozen chicken legs and wings and imports reached 50,000 MT in 2003 (Chemonics, 2004). Canadian suppliers have now joined this lucrative but unregulated market. In 2005, this author saw boxes of frozen chicken in Kunduz that had originally been exported from the USA to Russia. In 2006, possibly before, cheap frozen buffalo meat imported from India appeared in the shops. All these imported products are clearly labelled *Halal*, that is slaughtered to comply with Islamic customs. However, demand for frozen chicken meat and fresh chickens from Pakistan, which may have peaked in 2005, has apparently declined over the past 18 months due to consumers' fears about Avian Influenza which has been found in Afghanistan and Pakistan. For this reason at present imports of live chicken from Pakistan are banned.

## 7.6 Slaughtering of livestock and shop hygiene

In Kabul and Kunduz, most livestock are slaughtered under unhygienic conditions on the ground in open spaces between houses and in backyards. In Kabul this happens despite the fact that there is a large and partially functioning slaughterhouse run by the Ministry of Defence which many butchers are reluctant to use.<sup>49</sup> After preparation, carcasses are transported by pickup, motorbike or bicycle to butchers' premises. A new but currently unused slaughterhouse in Kunduz, where about 20 butchers could work in shifts, has been constructed by the Municipality. Unfortunately, it is poorly designed since expert advice was not taken, it is close to a major irrigation canal and, when it opens, butchers will be reluctant to use it because it is located at the edge of the city.

For many years there has been a slaughterhouse run by the Municipality next to the main *ganj* market in Herat. On the day it was visited in April 2007 it had a throughput of 600 animals (all stock) but numbers varied from day to day and according to the season. On that day, numbers were down as fewer animals were being brought to market which confirms the findings at the other livestock markets visited. All butchers buying in this market supposedly take their animals to the slaughterhouse where they are charged 10 Afs for small stock and 40 Afs for large stock. The building has a corrugated iron roof but it is poorly ventilated and therefore gets extremely hot inside in summer. A veterinarian employed by the Municipality inspects each animal slaughtered and stamps those carcasses which are approved for sale. They are seldom condemned although quite often livers are condemned

<sup>49</sup> This slaughterhouse was constructed by a Czech company in the early 1940s and much of the original equipment is still in place, though it is not clear how much is still functioning. Today it is used almost exclusively to supply buffalo meat and some beef to units of the Afghan Army in Kabul. About 6 MT of meat (with bone) were said to be supplied daily to the army throughout the year. Assuming a 440 kg buffalo were purchased for 35,000 Afs in the Company Market and yielded a 200 kg carcass, then about 10,000 imported buffalo worth about 350 million Afs are processed annually through this slaughterhouse. Private butchers should bring small ruminants for slaughter in the afternoon but there was little evidence that this was happening in large numbers for several reasons. First, the fee is 250 Afs per sheep or goat; second, butchers need to display their meat by 8 am; and third, getting animals to and collecting carcasses from the slaughterhouse would involve additional transport expenses. Major renovations to the Ministry of Defence run slaughterhouse are expected to start late in 2007.

when they are heavily infested with liver fluke (*Fasciola* spp.). Livestock are slaughtered in the open at Imam-i-Shashnur, Herat's second livestock market to the east of the city.

The Department of Health in each municipality is responsible for inspecting the hygiene of each butcher's premises. When conditions fail to meet the hygiene standards expected, they have the authority to close the premises. This seldom happens since the system is so open to abuse. Indeed, many of the butcher shops visited had poor hygiene and no deep freezers for overnight storage, or cold display cabinets for use in summer. This situation may be changing slowly as modern butcher shops open and more health conscious customers begin to demand higher standards of hygiene.



*Mutton carcasses being transported away from Herat qanj market*

## 8. Policy Implications

The research of the WOL project is specifically expected “to provide evidence-based directions and recommendations for improving the effectiveness of agricultural policy and rural programming.” A number of significant issues with policy implications were identified during fieldwork for this case study. They are discussed in the following section but not in any particular order of priority.

### 8.1 Promoting a more efficient peri-urban growing and finishing sector

A significant peri-urban growing and finishing sector has emerged in recent years but it faces many constraints, not least a shortage of credit to enable more farmers to grow and finish animals, and variable and unpredictable margins. Indeed, information presented in this case study suggests that margins are lower today than two years ago. However, the sector has substantial potential for improvement (CNFA, 2006). A huge range of livestock is available at different times of the year, from two-month-old ram lambs to 10-year-old cull oxen. This range alone confronts farmers with huge challenges since the growth potential of these different animals varies so much, as does the optimal feeding period in relation to market prices which are far from predictable on the day of sale. Feed supplies are also highly variable in quality and quantity. Many of them are quite seasonal and there are no quality controls on imported feedstuffs that are often expensive. Because peri-urban growing and finishing operations and the keeping of dairy cows are already widespread in the same areas, provision of veterinary services tends to be better.

Policies are needed to promote an efficient growing and finishing sector that makes optimal use of the livestock and feed resources available, increases the income of producers, and offers retailers well-finished livestock which command a good return in an increasingly competitive meat market. These Afghan finished animals would also help slow the growth in imports of live animals and frozen meat. Policies are also needed to encourage the formation of grower/finisher associations which give their members advantages over individual producers. Examples of the benefits of associations are the bulk purchase of good quality concentrate feeds at lower prices, preparing rations designed for different types of animals, better veterinary health services, improved marketing of animals and price monitoring, and management of a credit scheme. As this case study shows, provision of micro-finance at reasonable interest rates for up to 12 months is critical when establishing a thriving grower/finisher sector. Training of farmers and extension staff and access of farmers to advice are essential components of a policy to promote the sector. It could be developed – and many of its aspects integrated – along with the peri-urban dairy sector that already exists and which has considerable potential. One example is the purchase and storage of feeds and preparation of balanced rations.

### 8.2 Upgrading livestock marketplaces

The conditions in the major livestock markets in Afghanistan are poor and yet market players are paying a fee to use them, which they resent since there is little evidence of any improvements being made. For this reason it is strongly recommended that each provincial livestock marketplace be upgraded and when this is complete, improvements be made to district marketplaces. The Ministry of Agriculture, Irrigation and Livestock (MAIL) would develop policies to regulate these livestock markets and municipalities would lease out the day-to-day running to a private entrepreneur.

Every two years, municipalities would invite bids to manage each provincial and district livestock market using a transparent and competitive process. Bidders could be individual entrepreneurs or an agency such as an association of dealers and traders (Landell Mills, 2007). The Directorate of Veterinary and Animal Production in the MAIL would supervise the

bidding process. Bidders would submit business plans with budgets which would describe how they proposed to upgrade the marketplace in phases lasting two years. These improvements would include providing a perimeter wall with one or two entrances, concreted or asphalted access to loading ramps inside the market area, concreted or asphalted surfaces to standing areas, well-drained standing areas with shelters, a well to provide year-round good-quality water for livestock, a veterinary health post, an office, enclosed overnight housing for which there would be an extra charge, a covered feed storage area, etc. Receipts would be issued on payment of market fees and the accounts of lessees would be audited each year. Every six months, representatives from the municipality, MAIL and dealers' and traders' associations would review progress made to upgrade the marketplace according to the business plan. They would have powers to immediately terminate the lease if progress was unsatisfactory. The municipality would identify loan providers and act as a guarantor to enable the lessee to finance the initial work to be undertaken.

### 8.3 Weighing and auctioning of livestock

A transaction between a seller and buyer of livestock occurs when a bargaining session leads to an agreed price that depends on many factors (as discussed earlier in this case study). Among these factors are the subjective assessment of the value of the animal, such as its breed, weight, age and finish. Market players, particularly butchers, are often seen lifting a finished ram to estimate its yield of meat from which they derive the price they wish to offer the seller. In the case of large ruminants, estimating their live weight is obviously subject to large errors.

Weighing livestock would no doubt be popular with sellers bringing animals to market and with butchers as it removes some of the subjectivity from the bargaining process. Dealers might be less enthusiastic. A study in Quetta market in Pakistan found that live weight and seasonality were the two main factors determining prices (Rodriguez et al., 1995). It is therefore recommended that the MAIL install scales in a number of provincial markets on a pilot basis to introduce the concept. At first, weighing would be voluntary but once it became accepted, policies would be enacted to make weighing mandatory in intermediate and terminal markets. On entering market single large animals or batches of uniform small stock would be weighed for a fee. The weight would be printed on an official receipt which would be glued to the side of animals and so be easily seen by potential buyers. Though difficult, it is important to have a system that minimizes abuse and, in particular, protects the rights of livestock owners who are often illiterate. The weight of the animal would serve as the basis for the bargaining process that would take account of other subjective criteria to reach a final price.

With a few exceptions, advocating auctioning of livestock is not recommended as it is such an alien concept that it would be impractical in markets where large numbers of market players are simultaneously bargaining, often over single animals. Exceptions might include particularly valuable "improved" (*gheraji*) bulls suitable for breeding, or batches of fairly uniform finished rams. Demonstration auctions of such animals would be the first step to introduce the process to market players, with a view to expanding the process over time. Auctions would bring sellers of livestock (farmers, *kuchi* or traders) into direct contact with buyers (farmers who grow and finish livestock, traders from other locations and butchers) and thereby reduce the need for so many dealers and also transaction costs.

### 8.4 Providing livestock market information service

Development projects often include components which aim to establish livestock market information services (LMIS) — since better knowledge about prices, supplies and demand for livestock in different markets across a country helps market players take decisions and

helps remove possible inefficiencies in marketing chains. While this aim has merits, it is important to put LMIS into the Afghan context, particularly as such a concept is a huge advance on the present system. This gap would add to the difficulties of introducing a sustainable LMIS.

Even after several studies on livestock marketing, it is still not clear how inefficient the marketing system is. Would installing LMIS remove these inefficiencies? The mobile phone is undoubtedly leading to a huge improvement in the real-time exchange and formation of prices. A text messaging service providing prices could be built on the existing mobile phone network but the value of the service would be heavily dependent on the precision and timeliness with which market prices are collected. As mentioned in section 5, prices would have to be collected by skilled and dedicated enumerators. Timely and reliable prices would be needed to gain the confidence of traders in the information supplied by LMIS, otherwise they would continue to use their own informal system which is based increasingly on the use of mobile phones in any case. Unfortunately, it is farmers and *kuchi* in remote areas that most need to be better informed about current prices but they will be the last people to benefit from better communications. For this reason, they are the people who should be helped to be part of it.

Many questions regarding LMIS should be carefully considered before attempts are made to establish one, particularly as they face many potential problems which can make them unworkable (Stuth et al., 2006). Are cost effective and sustainable LMIS working elsewhere that serve the needs of livestock owners and meat consumers? The regular collection and exchange of accurate price information is a key prerequisite for an effective LMIS. This has proved to be a considerable challenge in many current and past projects that employ relatively well paid staff. Does the MAIL have the resources to manage a national LMIS in a sustainable manner? Is establishing an effective LMIS a priority when there are so many higher priority demands on its limited financial and human resources? Are both formal and informal costs so large between livestock owners and butchers that a LMIS would reduce these costs and thereby raise producer prices and possibly lower retail prices? Would the emerging informal LMIS which uses mobile phones be preferable over a formal LMIS backed by the government? Would the price information disseminated be less than two days old so that potential sellers and buyers could make more informed marketing decisions?

Despite these cautions, a pilot phase of a low-cost national LMIS should be started, such as establishing a network of trained experts working initially in five provincial departments of the MAIL. Once operating effectively, a private agency could start managing the LMIS. It would collect and process prices and availabilities of a range of meat products, livestock and feedstuffs in provincial markets. This information would be disseminated twice a week by email and mobile phone between provincial departments and displayed on bulletin boards in the main livestock markets and in regional newspapers. Prices would also be announced by radio and a text-messaging service started.

## 8.5 Slaughtering and slaughterhouses

Livestock in most parts of Herat, Kabul and Kunduz are not slaughtered outside butcher shops and the municipalities in Herat and Kabul have ageing slaughterhouses that urgently need upgrading.<sup>50</sup> However, even in Herat and Kabul many livestock are still slaughtered in unhygienic conditions in open spaces next to markets, in backyards and even in residential areas. Carcasses are then transported to butcher shops in open pickups, on motorbikes or on

<sup>50</sup> Jalalabad has a slaughterhouse run by the municipality which butchers are obliged to use. Kandahar "has a new slaughterhouse but [it] faces problems in efficiently operating it" (Landell Mills, 2007). The same report continues: "PRT efforts in [for example] Ghazni, to construct an 'improved' slaughtering slab turned out to be a dismal failure due to poor siting, no consultation with butchers and no running water."

bicycles in all weathers and seasons. The next section outlines one concept for building new slaughterhouses.

The construction of a large, hugely expensive and complex slaughterhouse to serve a whole city is sometimes recommended. It is doubtful whether most municipalities are ready to manage one efficiently, given difficulties with mains water, an intermittent electricity supply and non-existent waste disposal facilities. However, there is evidence from the slaughterhouse in Herat that a high throughput of animals can be achieved provided procedures are kept simple and costs low. Kabul, which is a far larger city and has all the problems mentioned above, already has a large central slaughterhouse which is working well below capacity. One large and two smaller new slaughterhouses for Kabul were proposed in one recent study (Landell Mills, 2007). The new but small slaughterhouse in Kunduz is badly designed, badly located and unlikely to be popular with butchers when it finally opens.

This author favours a consultation with butchers' associations to assess their opinion about a phased upgrading of slaughtering facilities. Phase one would be construction of privately run slaughterhouses based on standardised concrete units equipped with rugged and durable fittings. The number of units would be varied to give slaughterhouses of different sizes depending on the location and units could be added later if needed. Modest amounts of water would be needed for washing surfaces, and storage tanks for waste water and rumen contents should be constructed.<sup>51</sup> A small generator would provide electricity for lights to allow night working in summer and walls and roofs should be well insulated to avoid the need for air conditioning and heating. These neighbourhood slaughterhouses would encourage butchers to use the facilities since slaughter fees would be low, as would be the distance between livestock markets and butchers' shops. Five slaughterhouses might be constructed in Kabul. Veterinary officials at the MAIL would prepare the regulatory mechanisms for meat inspection and trained inspectors would be located in each slaughterhouse. Transport of carcasses in closed pickups would be organised by private entrepreneurs. A second phase would upgrade the larger slaughterhouses, possibly adding cold storage facilities if reliable electricity supplies were available. Development aid would be needed to fund the initial construction phase. Such an approach could be applied in the main cities in Afghanistan.

## 8.6 Follow-up studies

Follow-up studies are needed to add precision to a number of key aspects of livestock marketing chains that were identified in this case study. Some suggestions follow.

***Prioritize the importance of different livestock products:*** Over the past 15 years development projects in Afghanistan have given particular attention to peri-urban dairying, backyard poultry production, veterinary services, cashmere and wool. Indeed, support to these initiatives is likely to continue for some years into the future. In contrast, the development community has taken little interest in the red meat sector. This is somewhat surprising given its estimated annual earnings of at least US\$450 million to livestock owners and its potential for import substitution.<sup>52</sup> It is recommended that the MAIL commission a longitudinal study that extends in time the monitoring being implemented by the WOL project, to quantify the income generated from the different farm products. The income benefits from incremental improvements in the output of these different products would be

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<sup>51</sup> If it is confirmed that farmers use rumen contents as green manure, then there is a ready market for this waste material. Blood could be dried and used as fertilizer. A project run by MADERA developed a process which incinerates bones from cattle. The resulting powder is mixed with trace elements and certain vitamins. The mineral mixture for use by farm animals is being sold in shops in some rural areas in eastern Afghanistan.

<sup>52</sup> Derived from a conservative offtake of 15 percent from livestock with an asset value of \$3 billion (see Footnote 1). The value \$450 million includes the small amounts of meat consumed by rural families.

estimated. This would help the MAIL make informed decisions about the priority that it should give to different livestock products (MAAHL, 2005). Such monitoring would also generate estimates of offtake for Afghanistan which to date have been estimated using many assumptions (Thomson et al., 2005; RAMP, 2006).

*Quantify wholesale and retail margins:* A survey of market players should be conducted to gather information needed to estimate wholesale and retail margins with more precision than has been possible in past studies. This would make it possible to test the hypothesis that "large wholesale margins are partly responsible for low producer prices". The question is whether lower wholesale margins would reduce the coefficient of the slope of the line  $C_1 - P_1$  and result in a more efficient marketing chain (see Figure 3, Thomson et al., 2005). This would require retail prices to remain unchanged. However, how producer prices would actually respond is difficult to predict

A formal questionnaire would be applied to a large enough sample of market players to quantify price variability due to the types of animal and meat being marketed. It would be conducted in mid-winter and again in autumn to capture the maximum seasonal differences in livestock prices. Traders and dealers would be interviewed using open ended questions to gain a better understanding of the underlying culture that operates in livestock markets

Butchers would be interviewed to examine whether or not there is real competition between them. A second hypothesis to be tested would be that "retail margins are low because there is competition between butchers." The issue to examine here is whether there is real competition between butchers or whether they behave like a cartel.

The survey would also help answer questions such as whether having so many dealers in livestock markets results in disproportionately high wholesale costs. If this were found to be the case, it strengthens the argument to sell animals on the basis of live weight and to gradually introduce auctioning of the most valuable animals and batches of uniform finished livestock.



## 9. Final Remarks

This case study examined marketing chains for livestock in Herat and Kunduz provinces where WOL has two of its PRS, in two *kuchi* groups being monitored by the WOL project, and in Kabul. It attempted to identify inefficiencies in these marketing chains. Marketing of animals was seldom one of the main problems facing farmers and *kuchi*. Major issues affecting these two groups were access to credit and pastures, respectively. No doubt the *kuchis* would also have mentioned diseases as a major constraint if they had been asked about them. Traders importing livestock from Pakistan said that informal payments and harassment by police were serious problems and that access to credit needed to be improved. Traders and dealers were particularly concerned about falling margins and complained bitterly about the unsatisfactory conditions in the marketplace. Whether falling margins are a reality remains unclear but the poor conditions at marketplaces are patently obvious. The main problem facing butchers selling red meat was competition from imported frozen chicken and live animals which was putting a ceiling on the retail price of red meat. However, this means that a higher percentage of the urban population is able to buy meat.

The findings in this study show similarities with those identified in a synthesis paper by Paterson (2006): *"There are a large number of players involved in Afghan markets, yet many of these are making negligible margins and are trapped at a micro-level of activity. Other marginalised players include producers who have limited access to markets and are trapped in disadvantageous trade relationships."* However, there was little evidence that livestock markets *"are dominated by a very few large players at the top, with consequent instances of anticompetitive behaviour"* (Paterson, 2006). Whether there is anti-competitive behaviour among livestock traders, dealers and butchers remains to be investigated.

In conclusion, there is an urgent need for a study that quantifies retail volumes sold and retail and wholesale margins more precisely than was possible for this case study. The aim of the study would be to estimate the proportion of the retail price that livestock owners receive. If it is found that this proportion already lies within an acceptable range for the competitive meat market in Afghanistan, income from livestock can only be increased by selling larger numbers of efficiently produced and better finished animals. Producers also need to understand the quality demands of butchers and consumers and have timely access to price information. These issues need to be supported by policies which are enforced to ensure that livestock marketing chains perform efficiently. More efficient marketing chains will contribute to the *"strategy for providing licit livelihoods [that] focus on economic activities [to] produce import substitution or goods for export, not expansion of subsistence farming"* (ANDS, 2006, page 75).



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