Kazakhstan

Activity 1: Livestock producers' survey

Sampling methods and information on the villages selected for sampling

Factors including geographical territory, farm household typologies, farm organization type, mountain ecology, proximity to rangelands, and distance to livestock markets were considered for the determination of the villages for the formal socioeconomic survey.

Lists of households, obtained from administrations in the selected villages, indicated that not all households keep small ruminants. To ensure that the eventual number of the filled questionnaires is not dramatically lower than the initially targeted 150 households at each site, the random sampling was conducted only from households keeping sheep and/or goats. Researchers collected the information on the livestock kept by the households from the local administration of districts/villages prior to conducting the survey.

Household questionnaire was adapted and tested for local conditions by May 2008. Enumerators and researchers were trained by May 2008 (see Table1). Survey was conducted from June to August 2008.

Table 1. Information on enumerators who conducted the household survey

#	Enumerators	Institution	Date of training	Place of training
1	2 researchers	South-West Research Center of Livestock and Crop Science, Int'l Kazakh-Turkish University	18 March 2008	South-West Research Center of Livestock and Crop Science in Shymkent
2	2 MSc students	Int'l Kazakh-Turkish University		
3	3 students	South Kazakhstan State University		

Villages Akdala, Akbulak, and Junek were selected for the producers' survey. Akbulak and Junek villages are located closer to the main cities, Shymkent and Turkistan, respectively, while Akdala village is farther from Shymkent.

Akdala

Akdala village is located in the Arys district, South Kazakhstan province, at 9 km from the district center, Arys town, and at 90 km from the provincial center, Shymkent city. The village population of 4,776 people lives in 462 households. Although smallholders keep most of the livestock population, each household has a small number of animals. The village occupies 133,760 ha of land including 90,800 ha used for agriculture. Rangelands cover most of the area (76,800 ha) and a small portion is under hayfields (3,000 ha) and cultivated forages (3,000 ha), while other croplands occupy 8,000 ha.

Akbulak

Akbulak village is located in Ordabas district, South Kazakhstan province, at 20 km from Shymkent city and at 30 km from the district center, Temirlan village. The closest railway station is Badam station. Population of this village is 1,200 people. In the village, there are 40,000 ha of rainfed lands, 3,000 ha of irrigated land, and 50,000 ha of rangelands. Water is pumped from wells and partially obtained from the Arys and Syrdarya rivers. Main source of water for cattle are mineshafts 5 to 56 m deep. Water in these shafts varies from low-saline to bitter. The village is accessible from Shymkent by paved roads. Farmers are connected by dirt roads difficult to be used during winter and spring. The need to identify forages that will provide adequate dry matter yield in the winter months is of major importance for the livestock

producers in Arys district. The livestock market in Badam station is the closest market to Akbulak village.

Junek

Junek village is located in Turkistan district at 20 km from the district center, Turkistan city, and at 200 km from Shymkent city. Population of this district is 9,452 people living in 620 households. Livestock kept by 1,737 families consists of 4,045 cattle, 17,556 sheep, 410 horses, and 5,730 chickens. The closest to Junek village livestock market is located in Turkistan city. Inclusion of Junek village is explained by the proximity to the big livestock market in Turkistan as well as by the fact that the most of local residents are involved in rearing of small ruminants.

Table 2. Information on the selected villages

Village	Population	Total number of HHs	Selected sample, HHs	Distance to the main city
Akdala	4,776	462	60	90 km (Shymkent)
Akbulak	1,200	127	51	20 km (Shymkent)
Junek	9,452	620	39	20 km (Turkistan)

Household characteristics

Responses of the selected 150 households indicate that 13.3% of heads are women, and 86.7% of households are managed by men. Average age of a household head is 55.2 years (see table 2). The following distribution of household heads by education was recorded: higher education – 18.0%, specialized secondary education – 7.3%, secondary education – 73.4%, and incomplete secondary education – 1.3%. Average experience in livestock production forms 33.8 years, and the average number of family members is 6 people.

Table 3. Household head characteristics

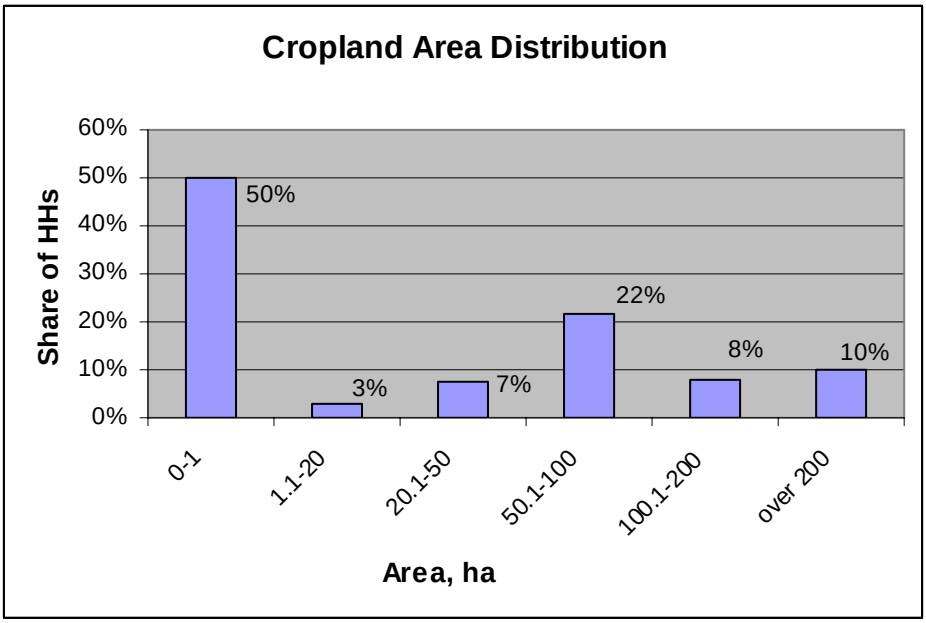
Villages	Gender, %		Average age	Education, %				Experience in livestock production, years	Family members
	female	male		Incomplete	Secondary	Specialized secondary	Higher		
Akdala	20	80	58.9	-	81.6	1.7	16.7	35	7
Akbulak	5.9	94.1	48.5	-	66.7	17.6	15.7	26	7
Juynek	12.8	87.2	58.2	5.1	69.2	2.7	23.1	41	5
Average	13.3	86.7	55.2	1.3	73.4	7.3	18.0	34	6

Analysis of households by their land assets indicates that the largest average land area per household is 95.14 ha (including own 16.74 ha and rented 78.4 ha) in Akbulak village. And the smallest average cropland area was recorded in Juynek village and formed 0.36 ha including own 0.24 ha and rented 0.12 ha. Average household in Akdala village owns 0.47 ha and doesn't have any rented cropland area.

Table 4. Land assets

Villages	Total cropland area (ha)	Own cropland	Rented cropland	Forage cropland (ha)		
				total area	own	rented
Akdala	0.47	0.47	-	-	-	-
Akbulak	95.14	16.74	78.4	10.17	5.88	6.09
Juynek	0.36	0.24	0.12	0.16	0.16	-

However, analysis of the cropland area distribution shows that 50% of the interviewed households have or rent less than 1 ha of cropland, and 22% of all interviewed households have only 0.15 ha of cropland.



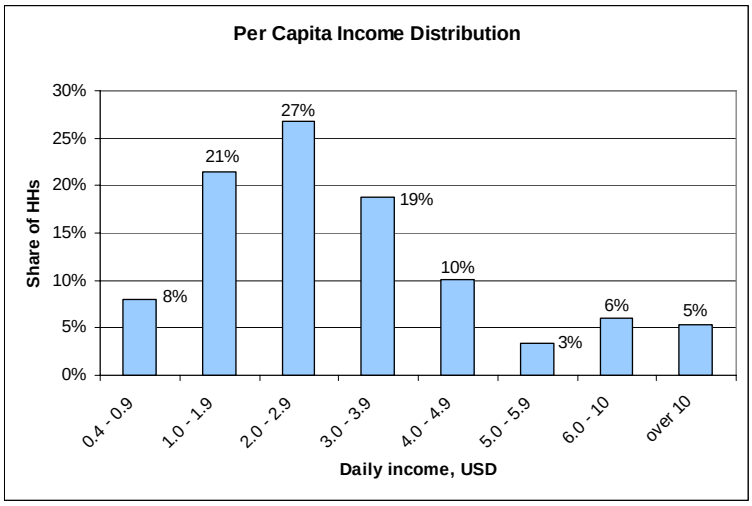
Livelihoods

Analysis of the collected income data shows that the average annual household income for three selected villages in 2007 formed 670,949 Kazakh Tenge (5,591 USD), and the average per capita annual income formed 111,825 KZT (932 USD). Among three villages, the highest average household income (1,021,580 KZT or 8,513 USD) was in Akdala, while the highest average per capita income (168,492 KZT or 1,404 USD) was recorded in Junek village.

Table 5. Average annual income in the selected villages

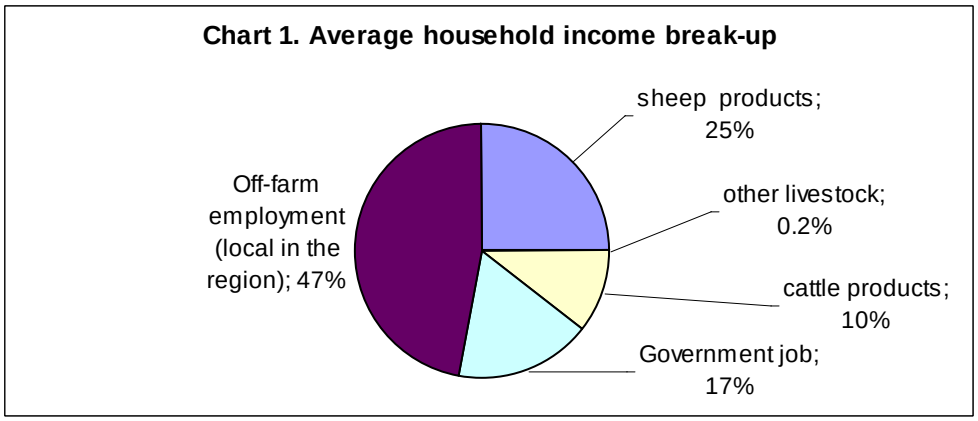
Income	Average for 3 selected villages	Akbulak	Akdala	Junek
per HH in Kazakh Tenge	670,949	461,541	1,021,580	405,356
per HH in USD	5,591	3,846	8,513	3,378
per capita in Kazakh Tenge	111,825	67,774	123,012	168,492
per capita in USD	932	565	1,025	1,404

Data on the per capita income distribution show that people in the 29% of the selected 150 households live below the USD 2 a day poverty line, and the income of 8% of people is below USD 1 a day.



Data on the per capita income distribution show that people in the 29% of the selected 150 households live below the USD 2 a day poverty line, and the income of 8% of people is below USD 1 a day.

Chart 1 of the weighted average household income structure shows that the highest share of income (47%) is from intraregional off-farm employment. It is followed by sheep production (25%) and income from the state job including pensions (17%). Cattle production provides 10% of the average household income. In general, about 35% of income is obtained from agricultural production. Regarding crop production householders stated that all harvested crops are consumed in the household, and there is no surplus left for marketing.



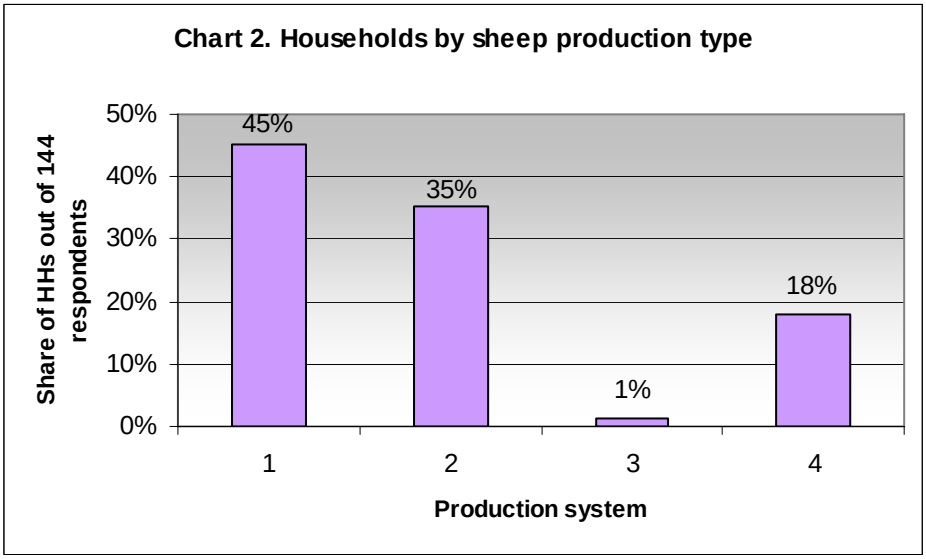
Data on the livestock kept by households shows that, in average, each producer keeps 126 sheep, 8 cattle, 1 horse, 3 indigenous goats, and 3 hens. Percentage of households in the sample keeping sheep and cattle dominate (92% and 90%, respectively) over the other livestock kept. At the same time, a share of households keeping horses (28%) is also high.

Table 6. Livestock flock size

	Sheep	Indigenous goats	Cattle	Horses	Poultry
Average HH flock for 150 HHs	126	3	8	1	3
The no. of HH keeping livestock	138	23	135	42	24
Share of HHs keeping livestock	92%	15%	90%	28%	16%

Production practices

Responses of livestock producers on sheep and goat production system used by them indicate that most of them (45%) prefer forming a joint flock to be grazed during the day and returned to the household each evening; while almost every third household (35%) uses the production technology similar to above mentioned but they hire a shepherd for grazing. And about 18% of livestock producers regularly keep animals on remote ranges.



Description of the production systems

1. Jointly herded flocks grazing in nearby common rangelands at distances where they can return to the homestead in the evening, each householder grazes the combined flock on a rotational basis:JHCRG1

2. Same as type 1, the difference is that HHs hire a shepherd for grazing the flock: JHCRG2

3. Animals are kept on rangelands from spring to autumn and each HH for the winter season moves their animals for stall-feeding: SARRG-WSF

4. Animals are kept on remote rangelands with the required infrastructure (sheep-fold, etc.) throughout a year: PRRG

Clear differentiation of the livestock producers following certain livestock production practices was possible for the systems 2 (JHCRG2) and 4 (PRRG). In system 2, the producers have low income and a small flock size. In addition, they are either busy at the official work or too old to graze the animals, and thus need a shepherd for grazing their animals.
In system 4 (PRRG), the livestock owners are the most better off part of the sample with the highest income level and the biggest flock size. This group of farmers does not have any rented land area or forage cropland. They almost exclusively rely on natural grazing in the remote rangelands.

Most of the households producing sheep (64%) practice grazing with pasture rotation, while the other sheep producers and all goat producing householders graze their flocks without rotation. However, further analysis indicated that those smallholders who said that they rotate pastures while grazing the flocks actually practice grazing on the nearby common pastures around their villages for more than 300 days a year. Thus, in this case, their practice cannot be considered as a pasture rotation as there are many farmers grazing their flocks on the same common rangelands. As expected, most of the sheep producers (96%) and all goat producers prefer keeping sires for natural reproduction of their sheep/goats, and only a few

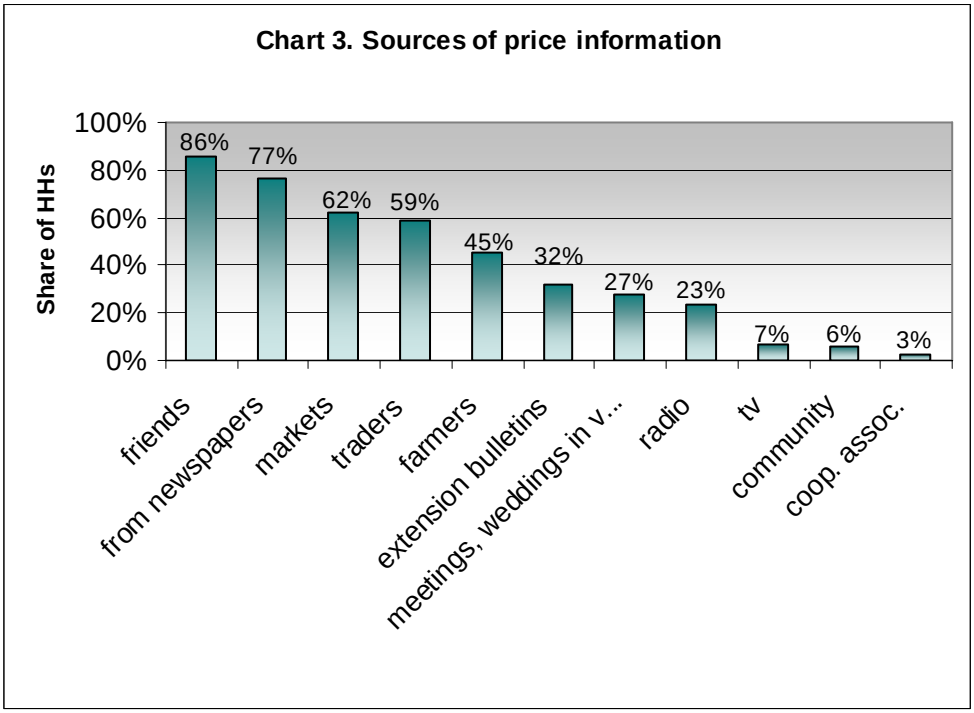
sheep producers use artificial insemination. Almost all households (99% for sheep and 100% for goats) in terms of feeding completely rely on grazing. Only 1% of sheep producing smallholders prefer mixing of grazing with supplementary feeding.

Marketing strategy

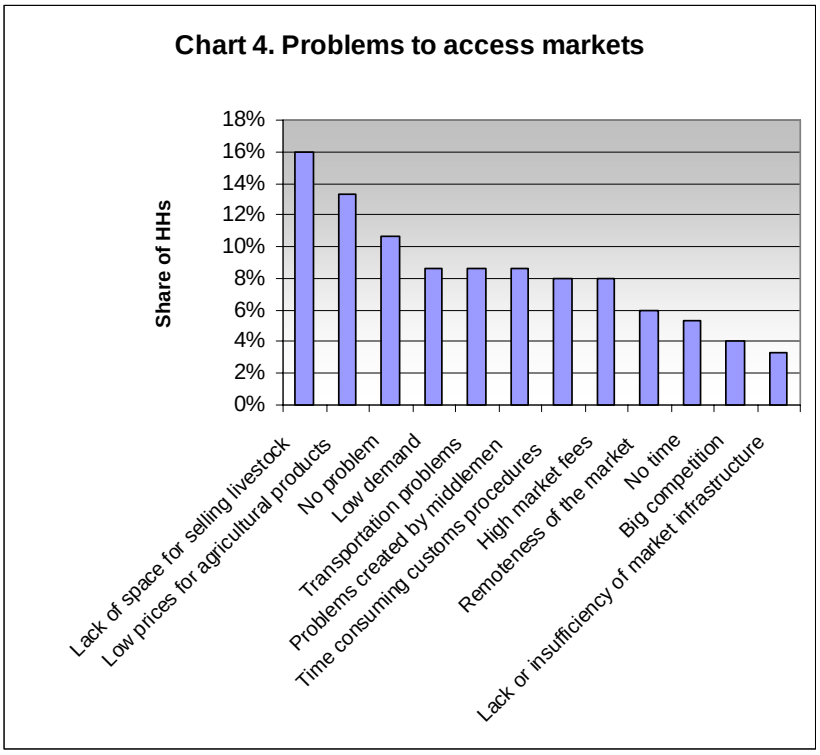
Before selling their sheep and goats all sheep and goat producers limit feeding to natural grazing, and none of them feeds animals by concentrated feeds.

To the question on the producers' reaction to a rapid sheep price decline, 83% of respondents said they would postpone sales, while 13% of households would sell animals anyway, and 4% of them would try to take a loan in order to sell animals later.
All producers prefer selling their animals without pre-arranged agreement, make immediate settlements in cash and sort mohair before marketing.

To the question on the information channel smallholders use to find out the latest livestock prices, most of them (86%) mentioned friends, while fewer households check prices from newspapers (77%) and markets (62%). Traders (59%) and farmers (45%) also help them to get the current price info.



Farmers were also asked to list major obstacles for accessing livestock markets. Out of all respondents 16% of households stated that insufficiency of marketplaces is the main problem for market access. These households are not satisfied by the area of markets that cannot fit all the farmers willing to sell animals. It happens regardless the entrance fee at the livestock markets paid by livestock producers and traders. At the same time, low prices for agricultural products were mentioned as the main problem by 13% of households. More than 7% of households mentioned low demand, transportation problems, presence of middlemen, customs procedures, and high market fees as factors limiting their market opportunities. Less than 7% of households think that long distance to the market, lack of time, strong competition, and underdeveloped infrastructure make sales of livestock more complicated.



Activity 2: Assessment of economic feasibility of the newly introduced technologies

Cost benefit analysis of the early lambing technology was conducted by the project team. However the applied methodology does not provide accurate assessment. The major problem of the mentioned analysis was that two animals, from the experimental and the control groups, were marketed at a different age. That is why results of the mentioned analysis are not presented in this report. It was decided that in 2009 an appropriate methodology will be used to evaluate the economic efficiency of this technology.

Assessment of the economic feasibility of early weaning and lamb fattening from June to September was also conducted. Traditional weaning was done in 4 months, while early weaning was applied in 75 days after lambing. Results presented in table 7 show that in “Kasymbay” farm, the selling price of karakul lambs has increased by three times, price for fat-tailed lamb has doubled, while in “Abdukarim” farm has increased by 1.7 times compared to the traditional weaning of lambs. In “Kasymbay” farm, profit formed USD 44 per karakul lamb, USD 60 per fat-tailed lamb, while in “Abdukarim” farm the profit generated per fat-tailed lamb equaled USD 68. In comparison with the traditional sheep production technology profit has increased by 76%, 15%, and 13%, respectively. These results show that early weaning technology with further fattening of lambs can be considered by livestock producers as an income generating activity. In 2009, similar analysis will be conducted to re-confirm this conclusion.

Table 7. Cost benefit analysis of fattening of the early weaned lambs

Farm	Breed	Techno-logy	Quantity of lambs	Feed costs/ head, USD	Total costs, USD	Market price/ lamb, USD	Total income, USD	Total profit, USD	Profit per lamb, USD
Kasymbhay	Karakul	new	50	44	2,220	89	4,431	2,211	**44**
		trad.	63	4	252	29	1,836	1,584	25
	Fat-tailed	new	54	44	2,398	105	5,648	3,250	**60**
		trad.	50	4	200	56	2,792	2,592	52
Abdukarim	Fat-tailed	new	24	44	1,066	112	2,686	1,621	**68**
		trad.	20	4	80	64	1,280	11,950	60

Cost benefit analysis of cow and sheep milk processing was completed. Obtained data indicate that milk processing for production of cheese (called chechel) does not allow to generate enough income to cover both milk and manpower costs and to get a significant profit. More detailed assessment will be conducted in 2009 to draw the final conclusion.

Table 8. Cost benefit analysis of cow and sheep milk processing

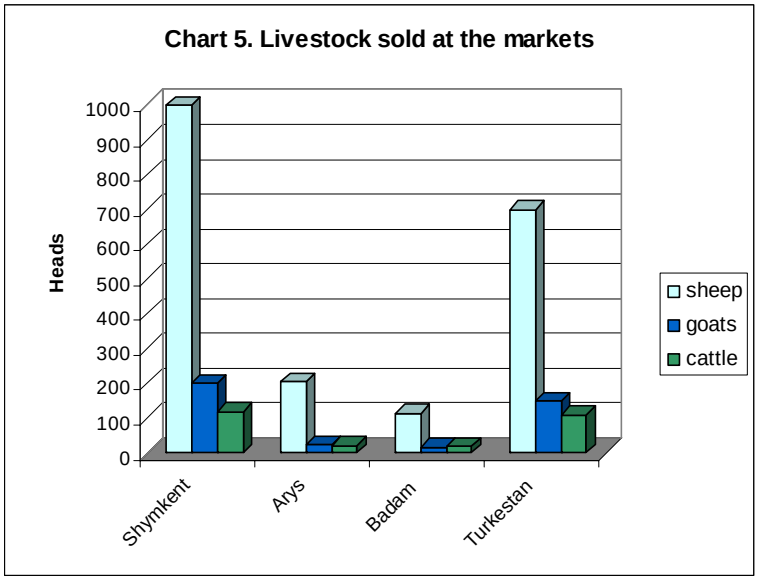
Technology	Milk	Price per liter of milk, Kaz. tenge	Total cost of milk, Kaz. tenge	Produced cheese	Price per kg of cheese
Chechel production	10 l.	50	500	1 kg	1,200 KZT
Income	1 USD = 120 KZT				700 KZT

Activity 3: Analysis of livestock market integration

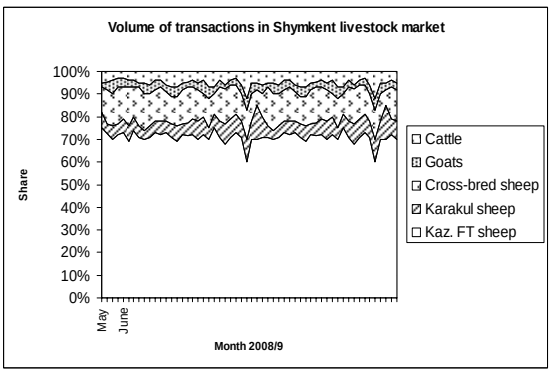
Questionnaire for weekly livestock price data collection was elaborated and tested by May 2008. Livestock price data collection started in May 2008 at two rural (Arys and Badam) and two urban (Turkistan and Shymkent) livestock markets. These weekly data include the total volume of transactions at the market, prices for sheep of different ages and livestock products (newly born lamb, 2-year old lambs, lamb meat, etc.) and for different sheep breeds, goats, heifers (fattened cows), and chicken.

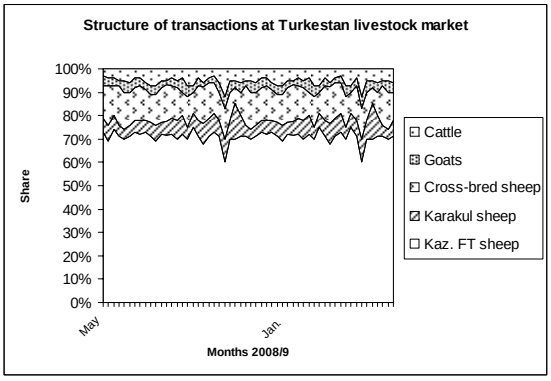
Analysis of transactions at the above mentioned four livestock markets shows that the highest sales are recorded in Shymkent and Turkistan cities, while the number of deals at Arys and Badam rural markets is significantly less compared to that of the urban markets (see Chart 5). Primary analysis of four month data covering the period from May to August 2008 shows the following trends. At all four markets, sheep sales have been increasing with the highest supply of lambs recorded in July (by 60% in Shymkent, by 30% in Turkistan, and by 10% at each of Arys and Badam markets compared to June). In August sheep sales reached the highest level at Shymkent market, while for the other three livestock markets the number of sold animals has stabilized. This trend, similar to both Kyrgyzstan and Tajikistan, indicates

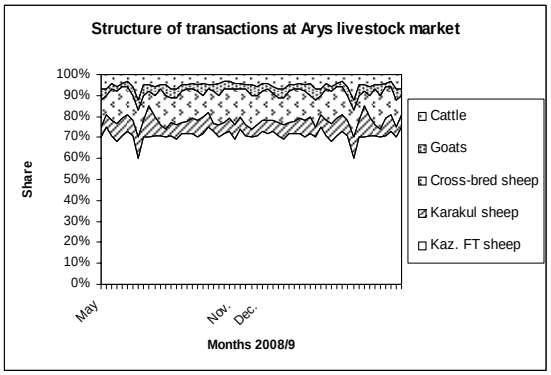
that smallholders anticipated a cold winter and tried to sell more lambs rather than buy expensive forage for winter. Lamb prices decreased because of the supply of lambs returned from the rangelands in July and slightly increased in August due to the wedding season.

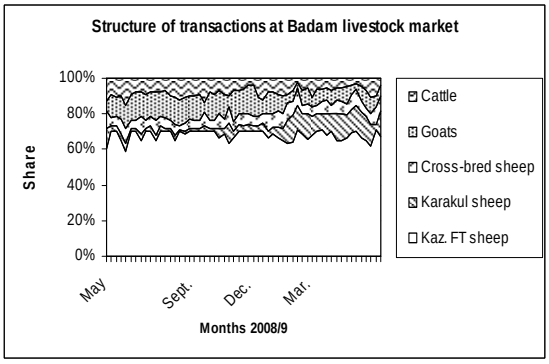


Analysis of animals sold at the livestock markets by sheep breeds and livestock types was also conducted. As shown on the chart 6, Kazakh fat-tailed sheep dominate over the other sheep breeds and other livestock categories at all four livestock markets. In Shymkent market, the share of fat-tailed sheep was as high as 72.3%, market share of crossbreds formed 14%, karakul sheep – 5.6%, cattle – 4.2%, and goats – 3.9%. The highest share of karakul sheep was recorded in Arys market at the level of 14.8%. The lowest share of the cross-bred sheep was recorded in Badam market.









Meat market monitoring for the same period, May-August 2008, in contrast to the other project sites, did not show price volatility. Price stability has been recorded at all four markets indicating that middlemen and butchers are actually the decision makers in meat market. The highest meat prices are in Shymkent and Turkistan where 1 kg of lamb costs 600 KZT and 1 kg of beef is sold for 550 KZT. The cheapest meat can be found in Arys market, where lamb price forms 560 KZT per kg and beef can be bought for 520 KZT per kg.

Kyrgyzstan

Activity 1: Livestock producers' survey

Household questionnaire was adapted and tested for local conditions by May 2008. Training of enumerators and researchers was conducted in March 2008 at the Agrarian University in Bishkek. Survey was conducted from June to August 2008.

Table 9. Information on enumerators who conducted the household survey

#	Enumerators	Institution	Date of training	Place of training
1	3 researchers	Kyrgyz Agrarian University, Kyrgyz State University	28 March 2008	Kyrgyz Agrarian University in Bishkek
3	6 students	Kyrgyz Agrarian University		

Villages Ak-Beket, Progress, and Komsomolsky were selected for the survey. They represent two categories of villages: smallholders in Ak-Beket and Progress villages located farther from main cities have access to the summer rangelands, while population of Komsomolsky village nearby Bishkek has no access to the summer rangelands.

The following criteria were used for selection of these villages:

1. location of region by its natural factors is very favorable for agriculture and rich in water resources, which indicates a very big potential for crop growing including forage crops;
2. proximity to the local markets varying from 15 to 35 km from the farm gate to the market provides an opportunity for farmers to sell the produced meat, dairy products, and animals;
3. many farmers have quite a big farming experience, i.e. they are involved in both livestock and crop production.

Table 10. Information on the selected villages

	Village	Households	Population	Distance from Bishkek*	Distance from Tokmok
1	Ak-Beket	178	694	93	29
2	Progress	402	1,950	83	13
3	Komsomolsky	460	2,247	15	75

*Distance from Bishkek to Tokmok is 60 km; urban village Kemin – Ak-Beket -5 km.

The main income source of population in the newly selected Komsomolsky village is neither crop, nor livestock production. Most of the residents work in Bishkek and at Manas airport. One of the main reasons for selection of this village was to see how proximity to Bishkek city affected livestock production practices of local householders in comparison with the farther located villages. Proximity of Komsomolskiy village to the livestock markets in Bishkek and, at the same time, insignificant share of agricultural production in livelihoods make this village a good site for comparison.

In Ak-Beket village, Kemin district, households graze their livestock on the nearby pastures or stubble-fields located at 3 - 7 km from the village. In summer, smallholders hire a shepherd to send their flocks to the summer rangelands at 35-40 km. (Depending on the age of a sheep households pay 15 to 35 Kyrgyz Som per head to shepherd for grazing).

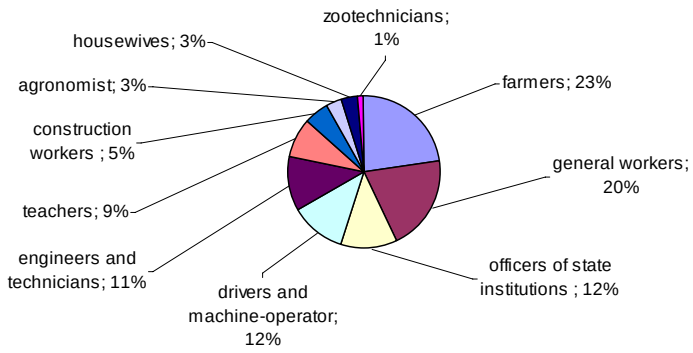
In Progress village, Chuy district, smallholders have similar grazing practices as in Ak-Beket village.

To graze their flocks, producers in Komsomolskiy village, Sokuluk district, use the forest belt located close to the village along the highway Bishkek – Airport (in the summer time), and the rest of the time they graze their animals on the nearby pastures or stubble-fields located at 1 to 5 km from the village. Smallholders graze their pooled livestock on a rotational basis without hiring a shepherd. In this village, there are no summer rangelands.

Household characteristics

Analysis of the household head age shows that from 150 interviewed farms 34 (22.6%) are managed by women, while 116 men (77,4%) are heads of the other households. Most of the household heads (55%) are from 45 to 60 years old. Those who are 60 and more years old represent the second biggest group (26.6%). Farm managers whose age lies between 30 and 45 years accounted for 13.3% of the sample. And only 4.6% of household heads belong to the youngest age group, from 16 to 30 years old.
Chart 7 indicates the distribution of the heads by their occupation. The highest percentage (23%) belongs to farmers.

Chart 7. Social status of the household head



The majority of household heads have a secondary education (35%) or a specialized secondary education (34%). Fewer heads have diplomas on higher education (15%) or have not completed secondary education (15%). Finally, one householder has not completed his higher education.

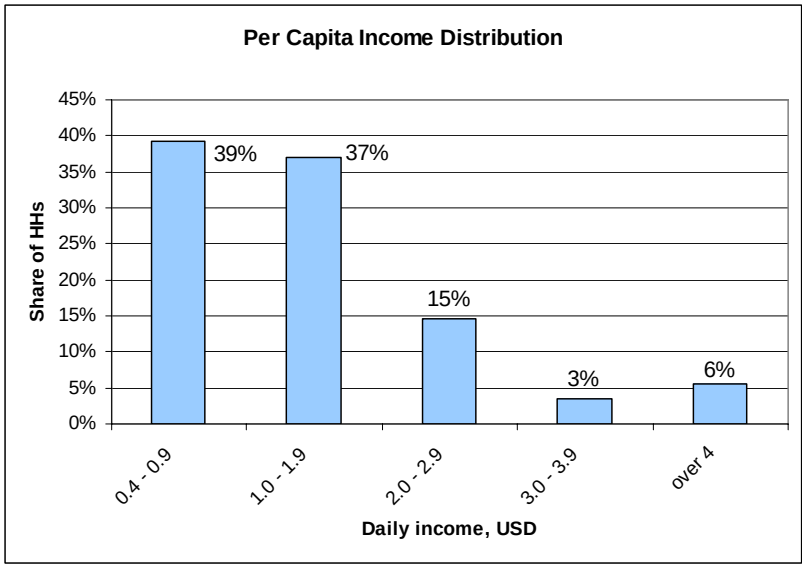
Livelihoods

Survey results show that the average annual household income for three selected villages formed 95,144 Kyrgyz Soms (2,571 USD), while the average per capita annual income formed 17,879 Kyrgyz Soms (483 USD). Among selected villages, the highest average household income (111,591 KGS or 3,016 USD) is recorded in Progress village, while in Ak-Beket village, there is the highest average per capita income (20,782 KGS or 562 USD).

Table 11. Average annual income in the selected villages

Income	Average for 3 selected villages	Ak-Beket	Progress	Komsomolsky
per HH in Kyrgyz Som	95,144	103,390	111,591	58,332
per HH in USD	2,571	2,794	3,016	1,577
per capita in Kyrgyz Som	17,879	20,782	18,840	12,523
per capita in USD	483	562	509	338

Data on the per capita income distribution show that people in the 39% out of the 150 selected households live below the USD 1 a day poverty line, while the daily income of 76% of people in the interviewed households is less than USD 2.



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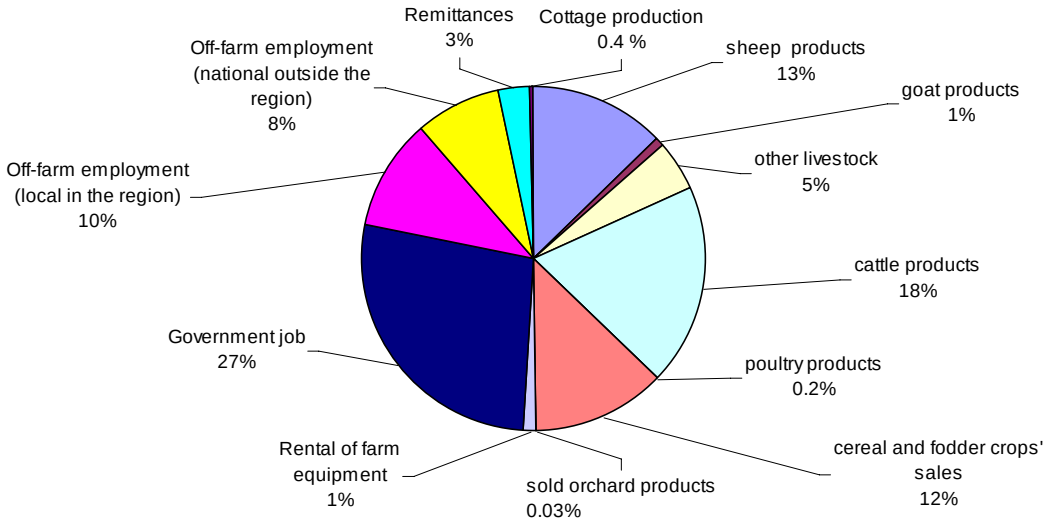
Analyses of the household income structure showed that the highest share of income is obtained from job in the state institutions. Income from cattle products is the second highest, while income generated from sheep production forms 13%. In general, about half of the average household income is obtained from agricultural production. The weighted average household income structure is shown on chart 8.

Chart 8. Average household income break-up



Analysis of the livestock kept by the households shows that in average each smallholder keeps 23 sheep, 4 cattle, 1 horse, and 2 goats. Percentage of households in the sample keeping sheep and cattle dominate (85% and 84%, respectively) over the other livestock kept.

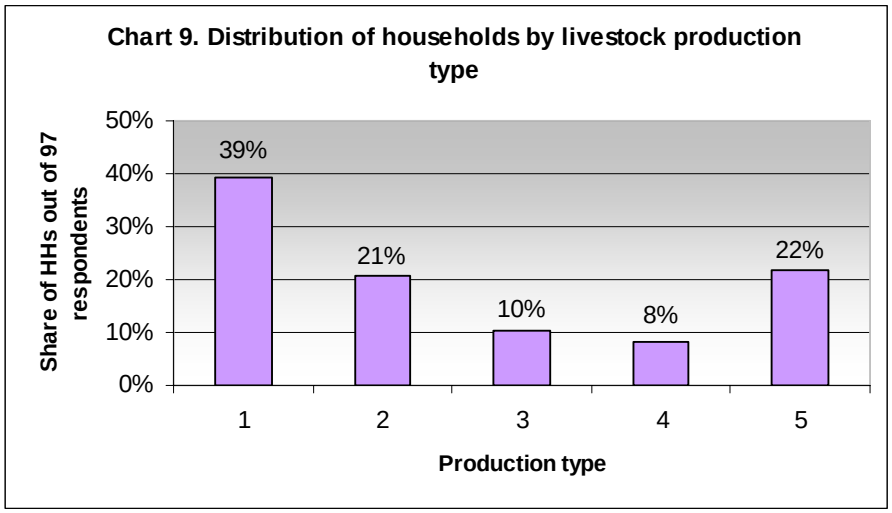
Table 12. Livestock flock size

	Sheep	Indigenous goats	Cattle	Horses	Camels	Poultry	Other (specify)
Average HH flock (calculated for 150 HHs)	23	2	4	1	0.02	9	0.09
The no. of HHs in the sample keeping certain livestock	127	41	126	56	1	68	5
Share of HHs keeping certain livestock	85%	27%	84%	37%	1%	45%	3%

Production practices

Responses of livestock producers on sheep production system used by them indicate that most of them (39%) prefer formation of a joint flock to be grazed during the day and returned to the household each evening; while almost equal share of households practice stall-fed rearing and grazing of their sheep hiring a shepherd (22% and 21%, correspondingly).

Most of the small ruminant producing households (87% for sheep and 77% for goats) practice rotational grazing while the others are not concerned about pasture rotation. As expected, for reproduction of their sheep/goats, almost all (98% for sheep and 89% for goats) producers do not use artificial insemination and prefer keeping sires for natural reproduction. Many households (81% for sheep and 82% for goats) completely rely on grazing, while the other smallholders think that supplementary feeding is also necessary.



Description of the production types
1. Jointly herded flocks grazing in nearby common rangelands at distances where they can return to the homestead in the evening, each householder grazes the combined flock on a rotational basis:JHCRG1
2. Same as type 1, the difference is that HHs hire a shepherd for grazing the flock: JHCRG2 3. Animals are kept on rangelands from spring to autumn and each HH for the winter season moves their animals for stall-feeding: SARRG-WSF 4. Animals are kept on remote rangelands with the required infrastructure (sheep-fold, etc.) throughout a year: PRRG **5:** stall-fed in household

Marketing strategy

Survey results show that most of the livestock producers in Ak-Beket and Progress villages (93.3%) prefer selling their animals at Tokmok market. And the majority of smallholders in Komsomolskiy village usually sell their livestock in Bishkek or in Sokuluk district.

Before marketing their sheep a significant part of producers (91%) feed animals by concentrated feeds, while the others limit feeding by natural grazing.

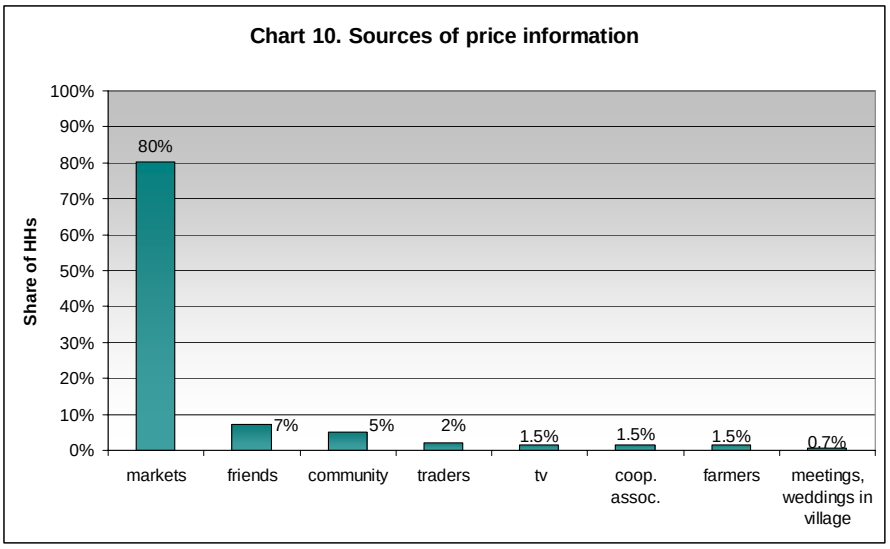
When producers were asked what they would do, if there was a sheep price decline, 75% of respondents said they would sell animals anyway, while the other households would postpone sales.

Majority of producers (97%) prefer selling their animals without pre-arranged agreement. And the remaining 3 respondents said that they may have such an agreement without advance payment and for provision of farm inputs. These agreements are usually made with middlemen or butchers and may last from one week to a month.

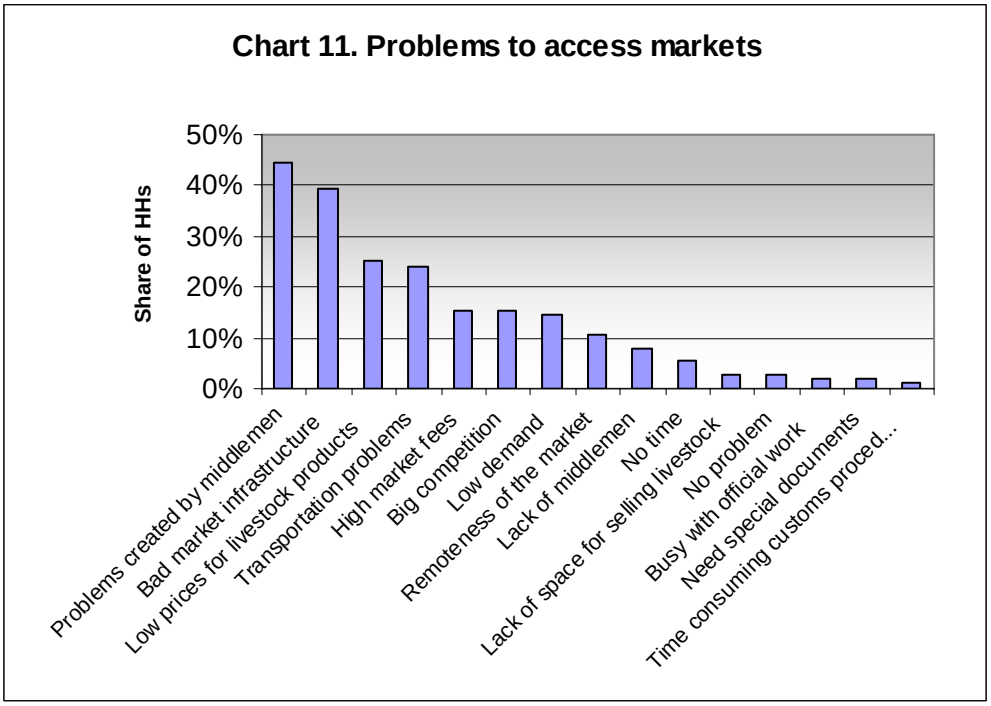
Almost all smallholders make immediate settlements in cash. There was only one producer from all respondents who would agree for a barter agreement. Most of the households (97%) sort their animals before marketing. Three basic characteristics used by smallholders and traders include the sex, the age, and the live weight.

Survey results revealed that the majority of smallholders (80%) find out price information from livestock markets, while friends (7%) and community (5%) were mentioned as an information source with a less frequency.

Chart 10. Sources of price information



Middlemen and unsuitable market infrastructure are considered major obstacles for free access to the livestock markets by 45% and 39% of households, correspondingly. And about 25% of households mentioned low livestock prices and transportation problems as factors limiting their market opportunities. The share of households that mentioned they are concerned about high market entrance fees, strong competition, and insufficient demand was 15%. About 10% of households think that long distance to the market and lack of middlemen make sales of livestock more complicated.

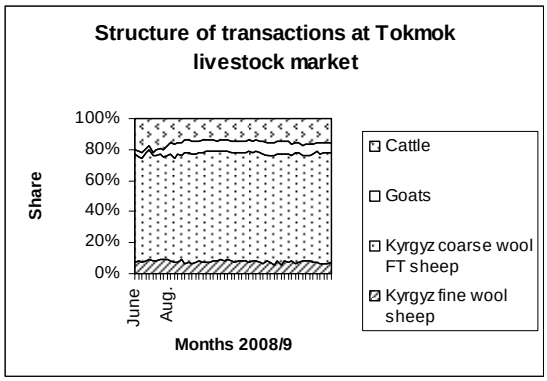


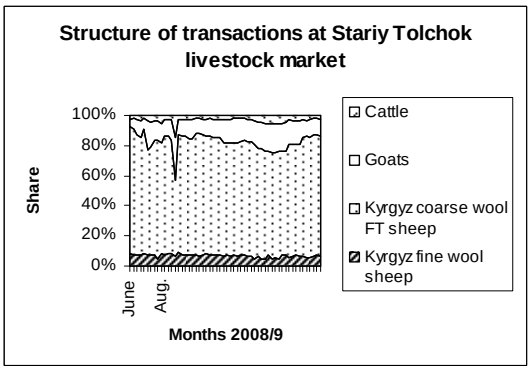
Activity 2: Analysis of livestock market integration

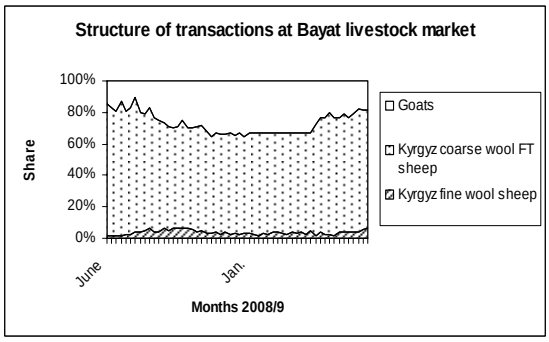
Questionnaire for weekly livestock price data collection was elaborated and tested by May 2008. Livestock price data collection started in June 2008 at three livestock markets, one in Tokmok town (rural) and two in Bishkek (Old Tolchok and Bayat, urban). The livestock market in Tokmok is actually the market supplying both Bishkek markets. Data from Tokmok market are collected once a week (on Sundays), while those from the markets in Bishkek are recorded twice a week (on Wednesdays and Sundays).

Analysis of the Tokmok livestock market shows that more than 2,000 sheep and goats, about 420 heads of cattle, and nearly 300 horses are sold on every market day. More than a half of small ruminants is purchased by the middlemen regularly working at this market. Animals sold at Tokmok market are mostly not fattened and brought from rangelands. In contrast, animals sold at both Old Tolchok and Bayat markets are selected and well fattened.

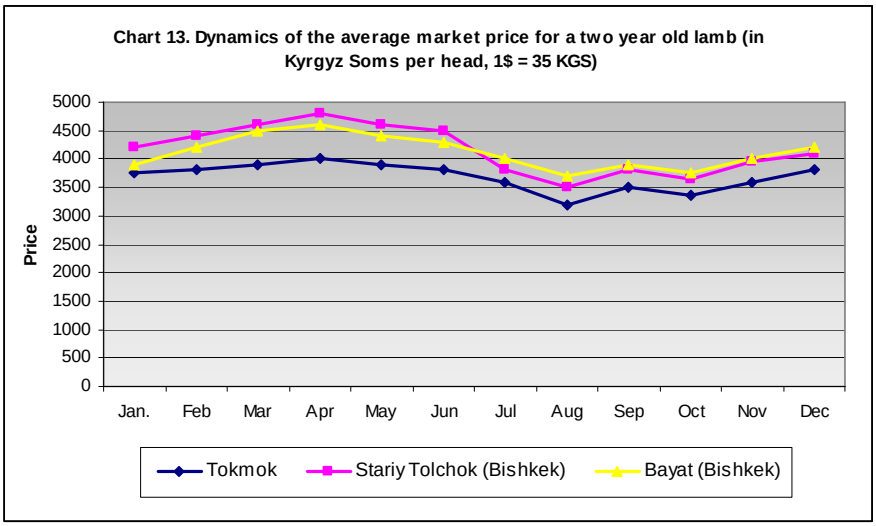
Analysis of sheep at livestock markets by gender and age groups indicates that the highest average price was recorded for adult rams (5,500 KGS) in July. For the other sheep categories price change was not so significant (from 50 to 200 KGS per head per month). Old ewes were sold at the lowest price (2,500 KGS per animal). In general Kyrgyz coarse wool fat-tailed sheep dominate at all three studied livestock markets with the share of transactions exceeding 60%. The highest share of goats compared to the other two livestock markets and no cattle were recorded in the smallest Bayat market.







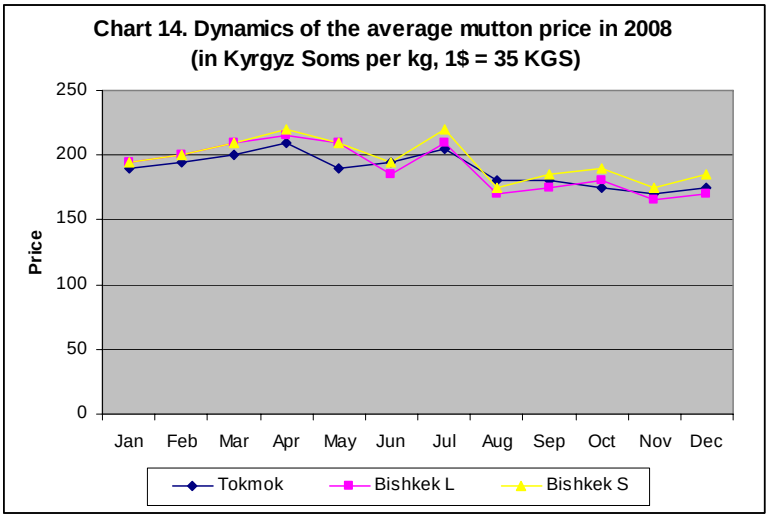
Average monthly prices (for 12 months of 2008) for a 2 year old ram at the studied markets fluctuated from 3,200 to 4,800 KGS. The highest price was recorded in April at Stariy Tolchok market at the level of 4,800 KGS. Rapid lamb price decline started after June and continued till August following a big inflow of lambs brought back from rangelands due to the maturity of animals, deficit of forage on ranges caused by a very dry season, and beginning of the schooling season.



For the period from June to September regular fuel price increase pushed mutton price up regardless a massive supply of lambs from rangelands in late July observed at livestock markets. Meat market monitoring shows that the most expensive mutton was sold in July at the price of 210-220 KGS/kg. This price hike is mostly attributed to inflation. However, in August mutton price fell to 170-175 KGS below the January level. Low price trend continued till the end of 2008 with the December level recorded at 175-185 KGS.

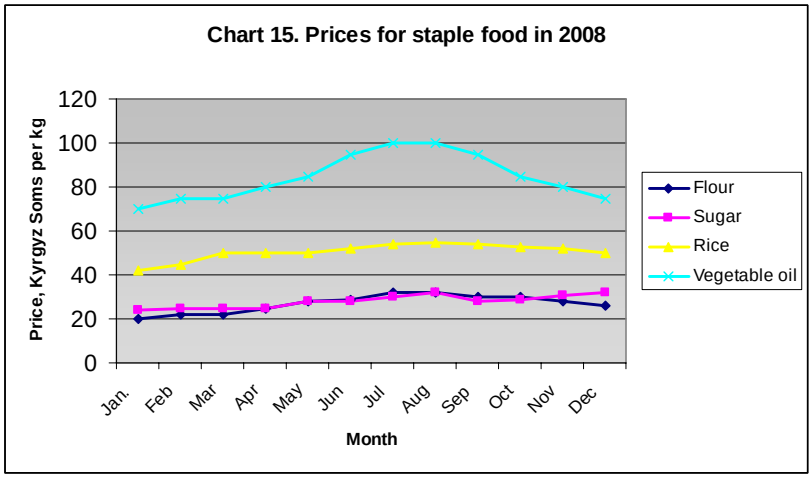
According to the observations of the research team high forage / feed prices and extremely cold winter experienced in 2007-2008 were the major reasons for sheep producers'

willingness to sell the most of lambs before winter season. Procurement of staple food at high prices and costs for preparation of children for school also contributed to increased sheep sales.

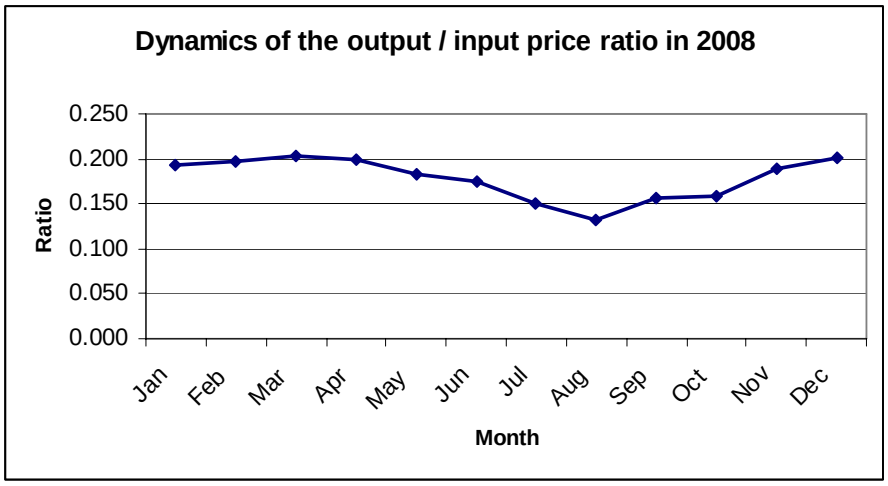


Activity 3: Analysis of price dynamics for livestock products, feed / forage, and staple food

Staple food prices were also affected by inflation. The highest prices were recorded in July and August. The highest price change was in case of a vegetable oil that jumped from 70 KGS/kg in Junuary to 100 KGS/kg in July. But following the increase there was a rapid decline, and in December the vegetable oil price ended up with 75 KGS/kg.



Analysis of the price change for the forage/feed, fuel, and the livestock products shows that there was a deflationary trend recorded for a lamb price in the first half of the year in contrast to the regular price increasing for feed and fuel during the same period. This could have dramatically affected those livestock producers who don't have access to pastures and practice stall-feeding of animals. The expected seasonal lamb price decline reached the bottom in August following a big inflow of lambs brought back from the summer rangelands. In September, the situation started recovering due to the fuel price decline and decreasing of feed prices caused by the new harvest season.



Tajikistan / Dushanbe

Activity 1: Livestock producers' survey

Household questionnaire was adapted and tested for local conditions by May 2008. Enumerators and researchers were trained in March 2008. Survey was conducted from June to August 2008.

Table 13. Information on enumerators who conducted the household survey

#	Enumerators	Institution	Date of training	Place of training
1	3 researchers	Tajik Research Institute of Livestock	14 March 2008	Tajik Research Institute of Livestock in Dushanbe, Karsang village in Vakhdat district
2	3 temporary workers hired for survey	Local administration office in Vakhdat district		

Nine villages were selected for conducting the formal socioeconomic survey of livestock producers. Selection of these villages was based on the following criteria:
1. the highest quantity of small ruminants (including the highest share of Gissar sheep) reared in "Dusti" community is recorded in these villages;
2. most of the residents are involved in not only production but also breeding of the fat-tailed sheep;
3. there are pastures located close to these villages;
4. there are farmer communities using outrun pastures for sheep rearing.

Detailed information on the number of households, population, and livestock in the selected villages is provided on table 15.

Sampling strategy

Selected villages were divided into three strata according to the altitude and their livestock production systems:

Group 1: households of Buzbid, Karsang, and Vakhdatobod villages located in the plain area at 36 km to the east from Dushanbe and at 10 km from the Vakhdat district center at the altitude of 750 – 860 m above sea level. Relief of this area is a floodplain terrace. Climate in this area has a low humidity with hot summer and mild winter. Major forage crops cultivated by households include cereals mainly wheat, leguminous plants, alfalfa for green forage and hay, maize for silage and green forage, and straw for forage. Livestock production is mainly stall-fed over the year. Distance to the rural livestock markets forms 3-5 km to Vakhdat

market and 12-17 km to Rudaki market. Distance to the semi-urban livestock markets forms 35-40 km to Sharora market and 40-45 km to Chorbogh market.

Total number of livestock producing households in this stratum formed 94. Out of these, 50 households were randomly selected for the survey.

Group 2: households Muminobodi bolo, Muminobodi poyon, and Nematobod are located in the flat and foothill areas at 45–50 km to the north-east from Dushanbe, at 15–20 km to the north-east from Vakhdat, and at 7 – 12 km from Dusti jamoat at the altitude of 860 – 900 m above sea level. Relief of the area can be described as uneven highland. Climate in this area has a low humidity with hot summer and mild winter. Major forage crops cultivated by households include cereals (wheat and barley), alfalfa for hay, annual grasses for green forage and hay. Livestock production is mainly stall-fed mixed with grazing. Distance to Vakhdat and Rudaki livestock markets is 5-7 km and 15-18 km, respectively, while from Sharora and Chorbog markets forms 38-43 km and 45-48 km, correspondingly.

Total number of livestock producing households in this stratum formed 89, and 50 households were randomly selected out of them for the survey.

Group 3: households Kosataroshi-bolo, Kosataroshi-poyon, and Chorvador are located in "Luchob" jamoat, Varzob district, at 30–50 km to the north-west from Dushanbe at the altitude of 1000 – 1200 m. Relief of this area is rugged terrain. Climate in this area is with moderate precipitation, hot summer and moderate winter. Major forage crops cultivated by households include cereals (wheat, barley, and oats), alfalfa for hay, annual grasses for hay, and straw of cereal crops. Livestock production is mainly 1) stall-fed mixed with grazing at nearby pastures or 2) grazing on the outrun rangelands. Distance to Gissar rural livestock market is 12–25 km and from Sharora and Chorbog markets is 15–22 km and 7–12 km, respectively.

Total number of livestock producing households in this stratum formed 67, and 50 households were randomly selected out of them for the survey.

In general, 150 households were selected from 250 households rearing small ruminants in the mentioned 9 villages.

Table 14. Information on stratified sampling

Villages	Total number of HHs	Selected sample, HHs	Altitude (m.)	Dominating sheep production system	Distance to Dushanbe, km	Distance to local livestock markets, km
Group 1	925	50	750 – 850	stall-fed over the year	35-40	3-17
Group 2	358	50	860 – 900	stall-fed mixed with grazing	45-50	5-18
Group 3	439	50	1,000 – 1,200	1) stall-fed mixed with grazing at nearby pastures or 2) grazing on the outrun rangelands	30–50	12-25

Table 15. Selected villages in Dusti community, Vakhdat district, as of 01.01 2009

#	Name of the village	The number of households	Population			cattle	sheep	goats	hens	horses	rabbits	donkeys	bee-families
			Total	Male	Female								
1	Buzbit	252	1,768	864	904	379	491	503	386	12	78	15	-
2	Karsang	170	1,348	663	685	297	302	288	561	11	23	20	54
3	Vakhdatobod	506	2,955	1,525	1,534	722	648	605	478	31	23	16	-
4	Nematobod	67	452	219	233	191	76	108	74	4	-	7	-
5	Muminobodi bolo	128	974	495	479	227	168	190	134	10	-	14	3
6	Muminobodi - poyon	169	1,108	584	524	256	175	196	205	10	25	15	-
7	Chorvador	90	655	332	323	224	368	148	355	24	-	33	52
8	Kosotoroshi bolo	168	1,524	743	781	1,524	1,872	308	550	78	-	48	54
9	Kosotoroshi poyon	73	452	224	228	224	384	288	180	28	-	32	25

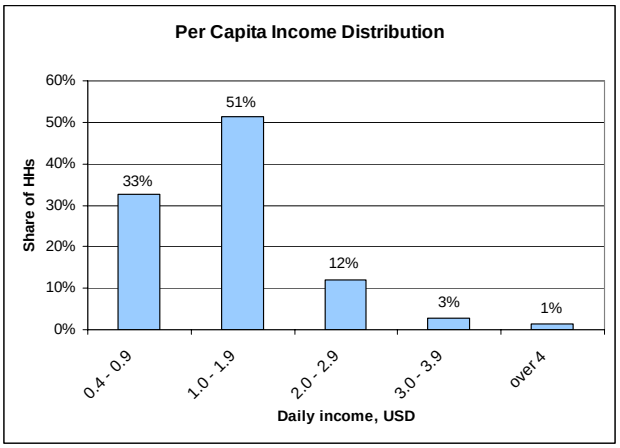
Livelihoods

According to the collected data the average annual household income for nine selected villages formed 14,140 Tajik Somonis (4,147 USD), and the average per capita annual income formed 1,730 TJS (507 USD). Among three strata, the highest average household income (14,709 TJS or 4,313 USD) as well as the highest average per capita income (1,915 TJS or 562 USD) are recorded in villages of group 3.

Table 16. Average annual income in the selected villages

Income	Average for 9 selected villages	Group 1	Group 2	Group 3
per HH in Tajik Somoni	14,140	13,079	14,634	14,709
per HH in USD	4,147	3,835	4,291	4,313
per capita in Tajik Somoni	1,730	1,583	1,706	1,915
per capita in USD	507	464	500	562

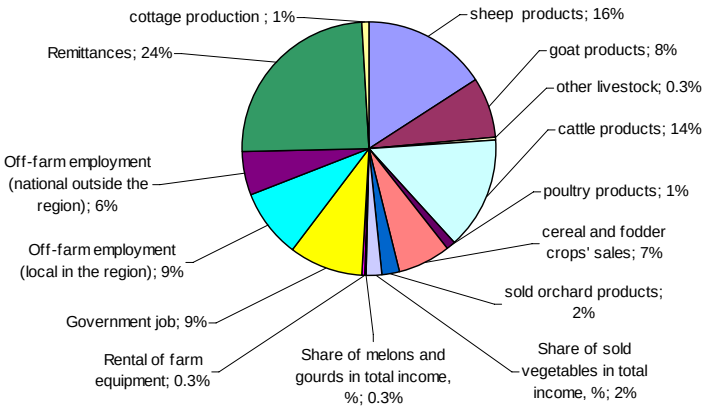
Data on the per capita income distribution show that people in the 33% of the selected 150 households live below the USD 1 a day poverty line, and the daily income of 84% of people in these households is less than USD 2.



Average household income structure indicates that the highest share of income (24%) comes from remittances. These are followed by sheep and cattle production where 16% and 14% of

income are generated, respectively. In general, like in Kyrgyzstan, about a half of the average household income is obtained from agricultural production. The weighted average household income structure is shown on chart 16.

Chart 16. Average household income break-up



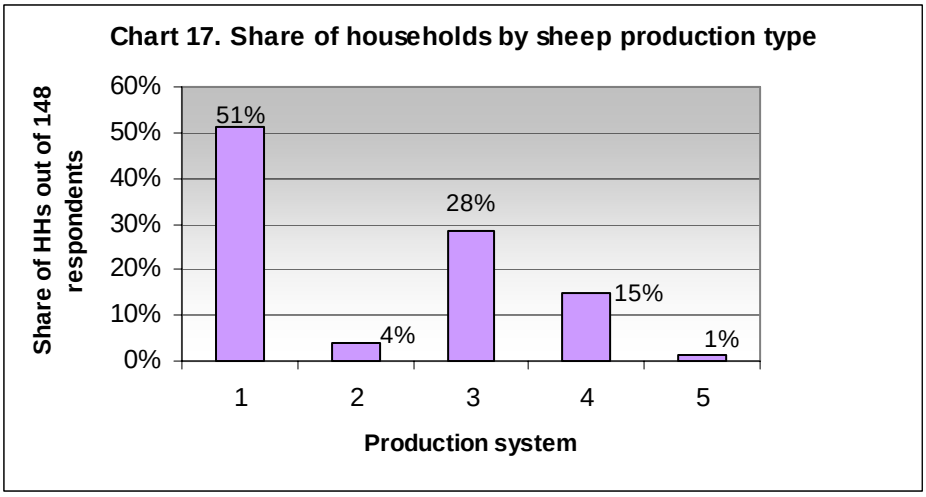
Analysis of the livestock kept by the households shows that in average each smallholder keeps 19 sheep, 4 cattle, 11 goats, and 8 hens. Percentage of households in the sample keeping sheep and cattle dominate (99% and 97%, respectively) over the other livestock kept. At the same time, shares of households in the sample keeping indigenous goats (79%) and hens (62%) are also high.

Table 17. Livestock flock size

	Sheep	Indigenous goats	Cattle	Horses	Poultry	Other (specify)
Average HH flock for 150 HHs	19	11	4	0.3	8	1
The no. of HH keeping certain livestock	149	118	145	33	93	21
Share of HHs keeping certain livestock	99%	79%	97%	22%	62%	14%

Production practices

Responses of livestock producers on sheep production system used by them indicate that most of them (51%) prefer formation of a joint flock to be grazed during the day and returned to the household each evening; while almost every third household (28%) graze their animals on rangelands except for the winter season when sheep are brought back to household. And about 15% of livestock producers graze their flocks on remote ranges throughout a year. This analysis indicates that smallholders try to minimize their forage and grazing costs as much as possible.



Description of the production types

Type 1: Jointly herded flocks grazing in nearby common rangelands at distances where they can return to the homestead in the evening, each householder grazes the combined flock on a rotational basis:JHCRG1

type 2: Same as type 1, the difference is that HHs hire a shepherd for grazing the flock: JHCRG2

type 3: Animals are kept on rangelands from spring to autumn and each HH for the winter season moves their animals for stall-feeding: SARRG-WSF

type 4: Animals are kept on remote rangelands with the required infrastructure (sheep-fold, etc.) throughout a year: PRRG

type 5: Stall-fed in household

Majority of the small ruminant producing households (93% for sheep and goats) practice rotational grazing while the others are not concerned about pasture rotation. As expected, producers prefer keeping sires for natural reproduction of their sheep/goats, and none of them uses artificial insemination. Many households (40% for sheep and 71% for goats) completely rely on grazing. At the same time the percentage of farmers who prefer mixing of grazing with supplementary feeding was 57% for sheep and 26% for goat producers. And only a few producers (3% for sheep and goats) completely rely on supplementary feeding.

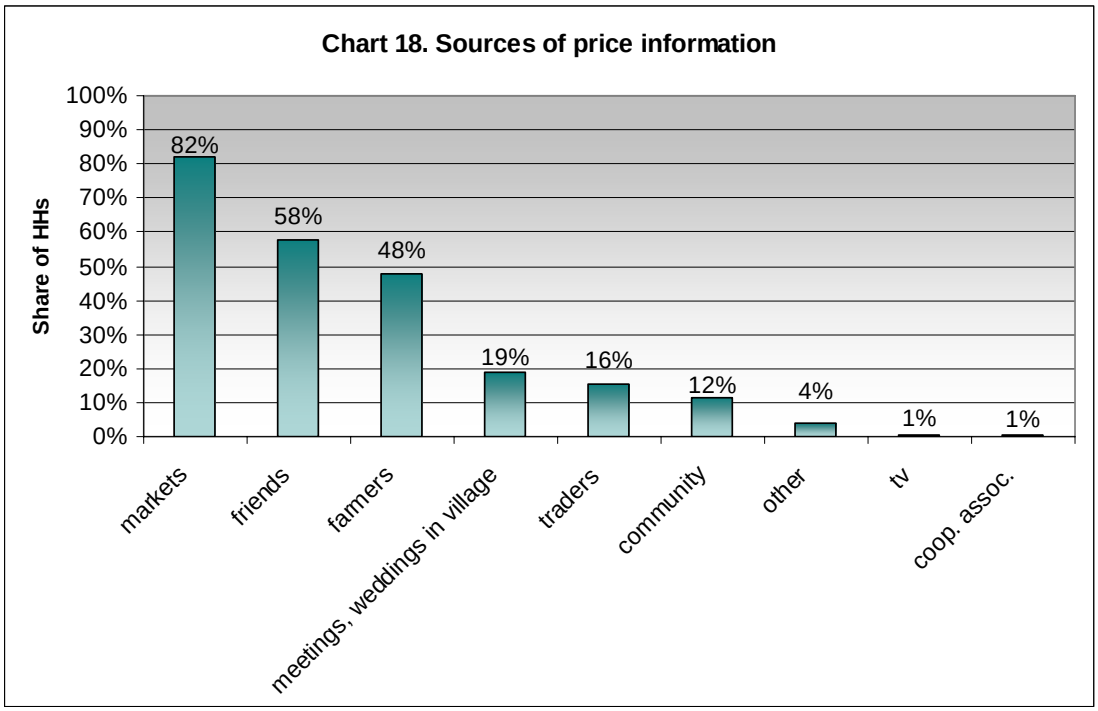
Marketing strategy

Before selling their sheep a significant part of producers (58%) limit feeding by natural grazing, while every third farmer (28%) in addition to grazing provides purchased concentrated feeds, and fewer households (14%) feed animals by concentrated feeds without grazing.

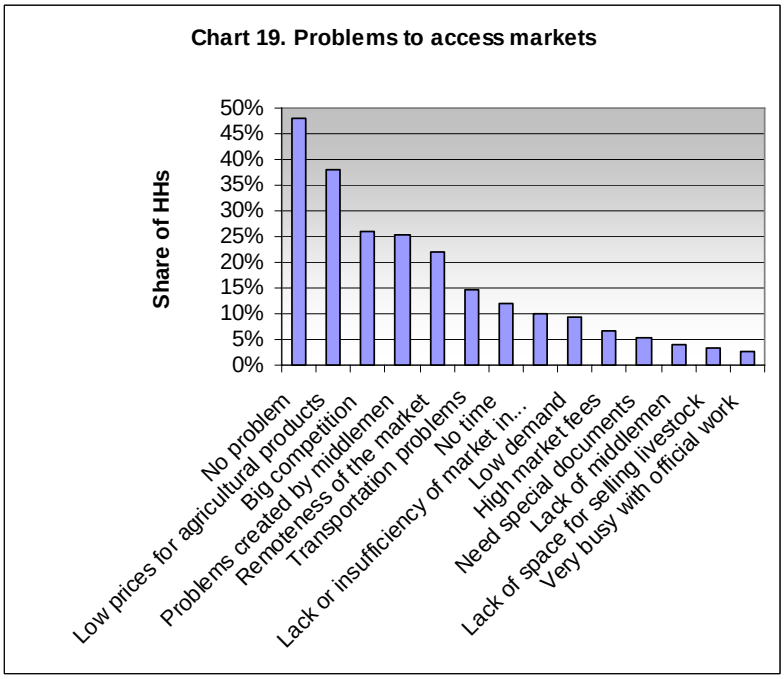
To the question on the producers' reaction to a rapid sheep price decline, 48% of respondents said they would sell animals anyway, while 50% of households would postpone sales. Only two households would try to take a loan to postpone the sales.
Majority of producers (98%) prefer selling their animals without pre-arranged agreement. And the remaining 3 respondents said that they may have such an agreement with advance payment with traders usually lasting for one season.

Many smallholders (96%) make immediate settlements in cash. There were only six producers from all respondents who would agree for a barter agreement. Most of the households (70%) sort their animals before marketing, while the remaining producers are not concerned about sorting.

When farmers were asked about the source they get the price information from, majority of smallholders (82%) mentioned livestock markets, while less households find out prices from friends (58%) and farmers (48%). Social gatherings (19%), traders (16%), and community (12%) also help them to get the current price info.



Farmers were also asked to list major obstacles for accessing livestock markets. More than 45% of households stated that they have no problem for market access. At the same time, low prices for agricultural products were mentioned as the main problem to access markets by more than 35% of households. About 25% of households mentioned strong competition and middlemen as factors limiting their market opportunities. More than 20% of households think that long distance to the market makes sales of livestock more complicated.

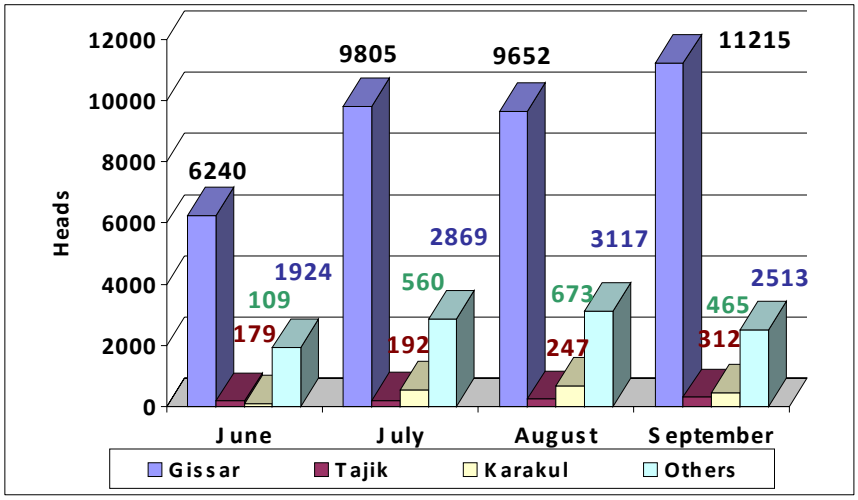


Activity 2: Analysis of livestock market integration

Weekly livestock price data collection is undertaken at two urban livestock markets, Sharora (in Gissar district, at 8 km from Dushanbe) and Chorbogh (in Varzob district, at 2.5 km from Dushanbe), and two rural livestock markets, Sangob (in Vakhdat district, 25 km from Dushanbe) and Eski Bozor (in Rudaki district, 8 km from Dushanbe).

Preliminary results of analysis of collected weekly livestock prices and market transactions at urban and rural markets show that the highest number of livestock is sold at Rudaki market located nearby Dushanbe city limits. From June to August, lamb prices have been increasing. Livestock prices rose in average by 15% in June and by 20-25% in July and 1st half of August. Major factors explaining the price movement in June are rising feed/forage prices and 30% fuel price hike recorded from May to August in 2008. In July, despite increased supply of lambs brought for sales from the summer ranges, demand caused by the wedding season pushed lamb prices higher.

Chart 20. Breed distribution of sheep sold at the markets (Tajikistan, Dushanbe site)



Others in the above chart include all animals that do not belong to a certain breed, i.e. these are either cross-breds of two breeds or it is impossible to identify their breed. Usually many households don't have targeted breeding plans which makes it difficult to show the break-up of the other animals.

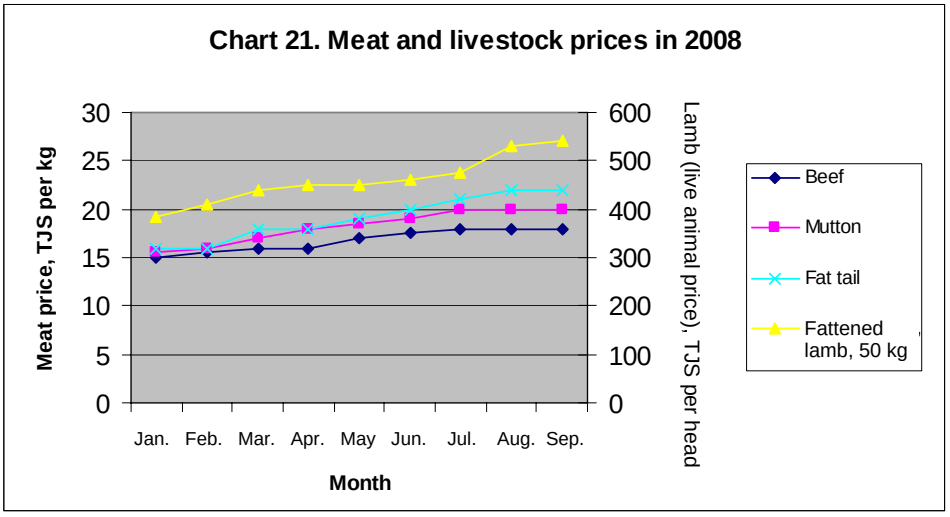
In general, better marketing conditions exist in Rudaki and Sharora livestock markets. Most of the livestock producers are concerned about the winter season and try to sell as many sheep as possible to avoid high forage costs. The other reasons for early sales of lambs are the peak condition of lambs and lack of forage on rangelands due to the exceptionally dry season. This definitely will negatively affect the size of households' flocks and limit the reproduction opportunities for the next year.

Activity 3: Analysis of price dynamics for livestock products, feed / forage, and staple food

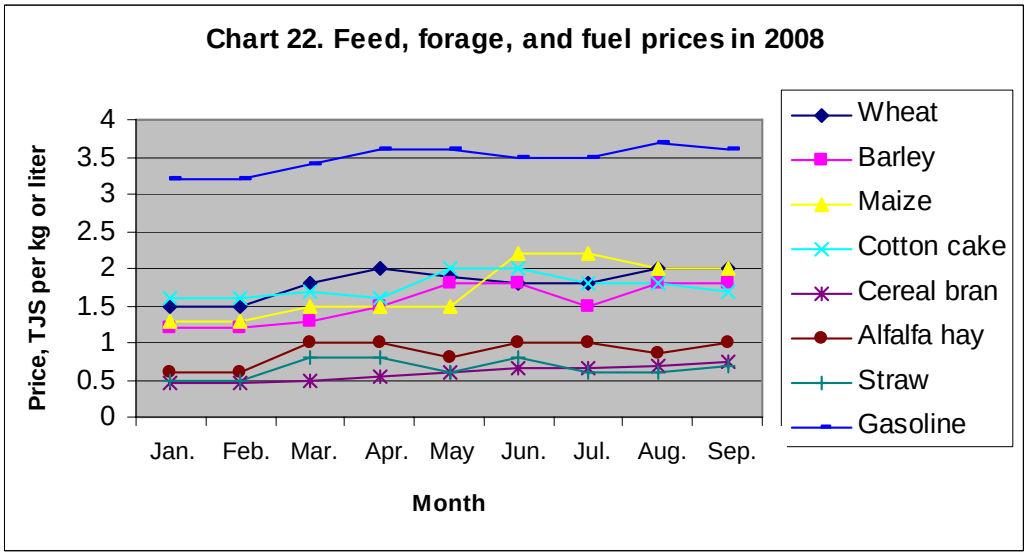
During the previous years prices for some products fluctuated significantly, however in 2008 the situation was different except for the forages and cotton cake. For nine months of 2008 prices for agricultural products have been increasing.
For nine months of 2008 beef and mutton prices have grown by 20% and 29%, respectively.

In contrast to the other project sites, sheep prices did not show response to changes in supply of lambs, especially in July and August when the number of sold animals was exceptionally high compared to the previous year. For example, price for a fattened ram has

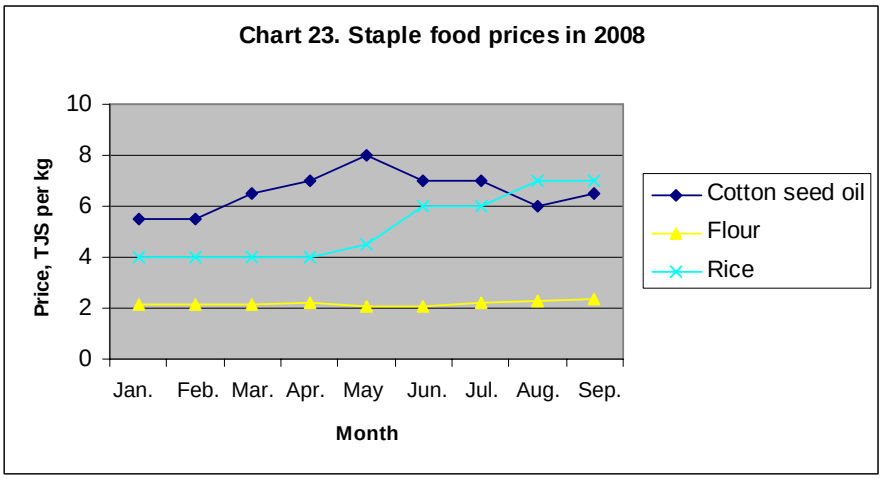
been regularly increasing with the total of 40% increase for nine months. This situation indicates the role of the middlemen at livestock markets who have enough market power to maintain a certain price level. Prices for small ruminants have been increasing at the average monthly rate of 4.47-8% every month.



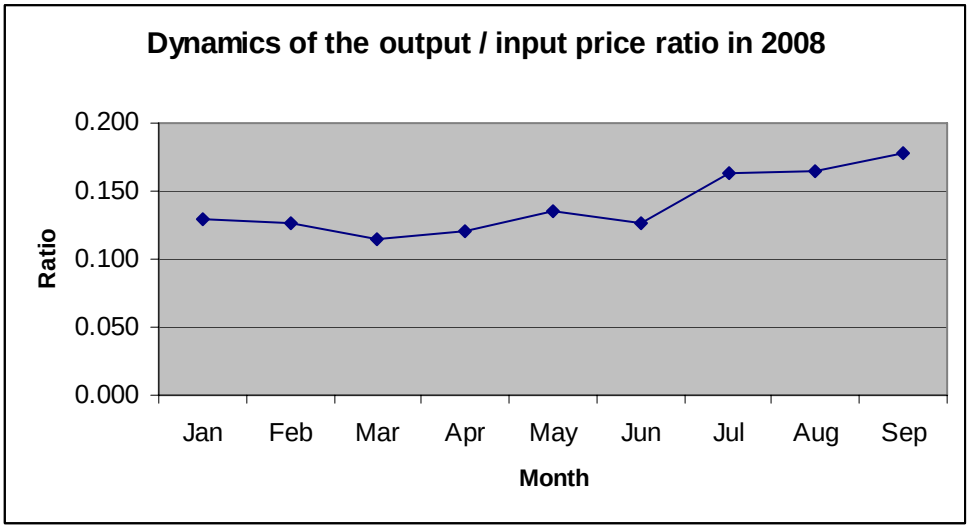
By September feed and forage prices have grown by 33.3-87.5%, and fuel prices have increased by 20%.



Rice price has jumped up for 4 TJS per kg in May to 7 TJS per kg mainly due to a very dry season and, consequently, a very low rice production in 2008. There was a significant price hike for cotton seed oil from February to May, with a decline recorded after May. By September cotton seed oil was still sold at 18% higher price compared to the beginning of the year.



Analysis of the livestock production output and input prices indicate that by March producers faced the worst economic conditions within nine months of 2008 mostly because of the higher forage and feed prices. However, from June to September the terms of trade have significantly improved because of increased lamb price and relatively stable feed prices.



Tajikistan / Khujand

Activity 1: Mohair goat producers' survey

Household questionnaire was adapted and tested for local conditions by May 2008. Enumerators and researchers were trained in March 2008. Survey was conducted from June to August 2008.

Table 18. Information on enumerators who conducted the household survey

#	Enumerators	Institution	Date of training	Place of training
1	2 researchers	Tajik Research Institute of Livestock	17 March 2008	Tajik University of Technology
2	5 students	Agrotechnology department, Tajik University of Technology		

Villages Apon (highest altitude), Karajingil, Takli, Okbulok (all three in foothill area), and Uyas (in the plain area) were selected for formal socioeconomic survey.

Five selected villages were stratified according to the altitude as well as small ruminant production technology. Apon village was in the first group (at the highest altitude), goats dominate in these HHs. The second group (at medium altitude) consisted of three villages, Karajingil, Takli, and Okbulok. Share of goats and sheep is almost equal in these villages. In the third group (at the lowest altitude), all households of Uyas village were listed. In these HHs, there are fewer goats and more sheep.

The total number of households in the sample formed 150 including 40 HHs from Group 1, 50 HHs from Group 2, and 60 HHs from Group 3. The newly selected Apon village is located in the mountainous area and is higher than the other villages. This village was selected to represent the households in the highland zone. Three big mohair markets are located close to this village in Koramozor and Dulona villages and Adrasman town. This makes Apon village a good option for conducting not only the producers' but also the traders' survey.

Table 19. Information on households and population in the selected villages in Ismoil Jamoat, B. Gafurov district

#	Name of the village	The number of households	Population	Including:		Population (under 14 years old)	Note
				Male	Female		
		2006	2006	for 2004 only			
1.	Apon	121	664	321	341	215	Group 1
2.	Karajingil	163	1,090	571	606	383	Group 2
3.	Takli	9	69	33	35	22	Group 2
4.	Okbulok	5	28	13	14	9	Group 2
5.	Uyas	715	4,220	1,999	2,122	1,339	Group 3
	Total	**1,013**	**6,071**	**2,937**	**3,118**	**1,968**	

Table 20. Livestock in the selected villages

Name of the village	Goats	Sheep	Breeds being reared in the project site	
	2006	2006	Goats	Sheep
Apon	1,081	208		
Karajingil	2,591	1,027	Angora; Jaydara	Jaydara; Tajik breed
Takli	247	101	Angora; Jaydara	Jaydara; Tajik breed
Okbulok	131	56	Angora; Jaydara	Jaydara; Tajik breed
Uyas	2,932	1,306	Angora; Jaydara	Jaydara; Tajik breed; Gissar
Total:	**6,982**	**2,698**		

Livelihoods

Analysis of the collected income data shows that the average annual household income for five selected villages in 2007 formed 8,574 Tajik Somonis (2,514 USD), and the average per capita annual income formed 1,117 TJS (328 USD). Among three strata, the highest average household income (10,178 TJS or 2,985 USD) is in group 3, while the highest average per capita income (1,358 TJS or 398 USD) is recorded in villages of group 2.

Table 21. Average annual income in the selected villages

Income	Average for 5 selected villages	Group 1	Group 2	Group 3
per HH in Tajik Somoni	8,574	4,256	10,124	10,178
per HH in USD	2,514	1,248	2,969	2,985
per capita in Tajik Somoni	1,117	569	1,358	1,219
per capita in USD	328	167	398	357

Data on the per capita income distribution show that people in the 75% out of the 150 selected households live below the USD 1 a day poverty line, and the daily income of 93% of people in the interviewed households is less than USD 2.

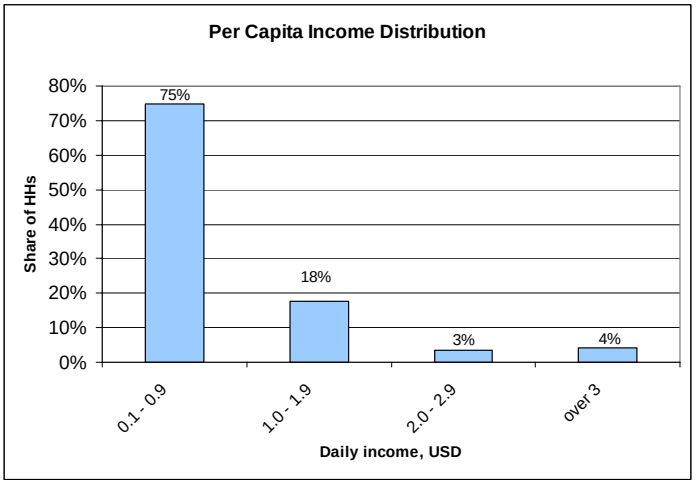
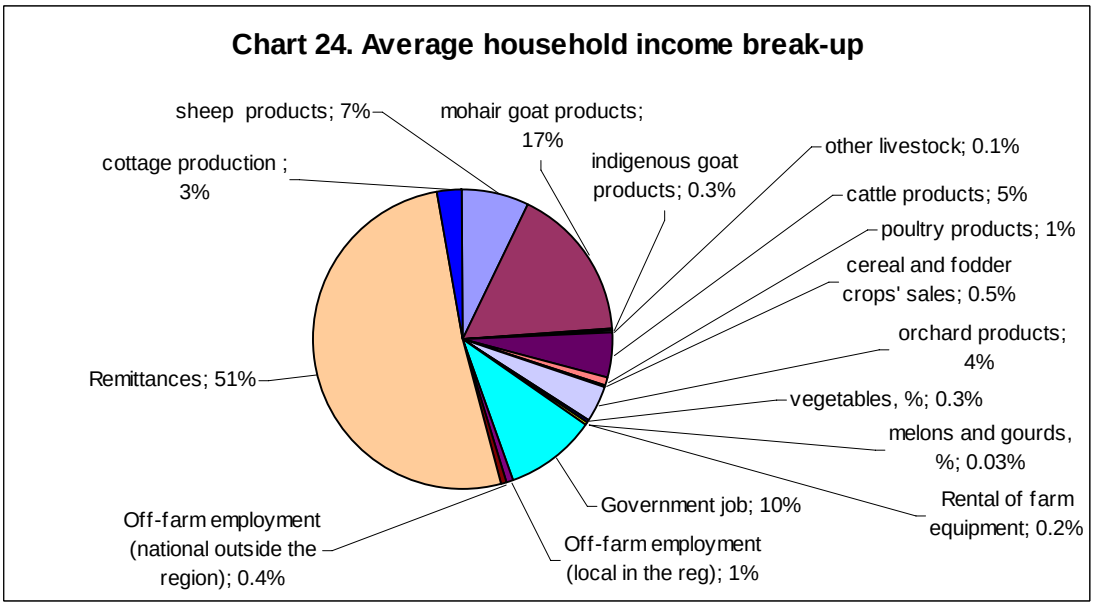


Chart of the weighted average household income structure shows that the highest share of income (51%) comes from remittances. This is the highest indicator recorded for remittances among four project sites. These are followed by mohair goat production (17%) and income from the state job (10%). Sheep production provides 7% of the average household income. In general, about 36% of income is obtained from agricultural production.



Data on the livestock kept by households shows that in average each smallholder keeps 19 mohair goats, 12 sheep, 1 cattle, 1 indigenous goat, and 2 hens. Percentage of households in the sample keeping sheep and mohair goats dominate (85% and 81%, respectively) over the other livestock kept.

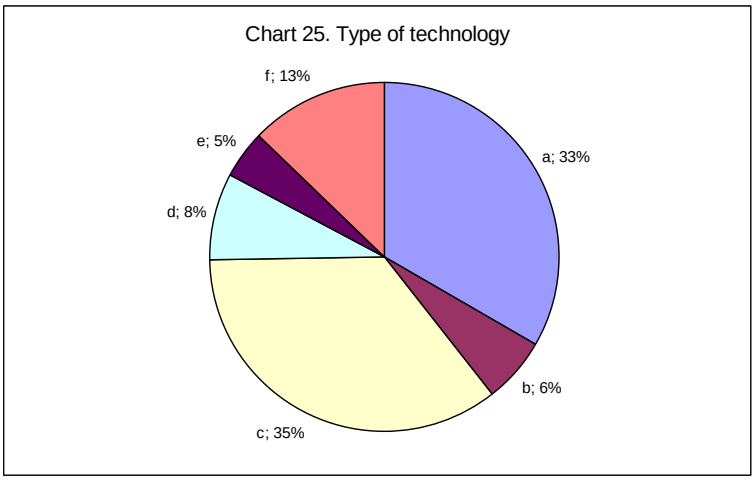
At the same time, a share of households keeping cattle (45%) is also high.

Table 22. Livestock flock size

	Sheep	Mohair goats	Dairy goats	Indigenous goats	Cattle	Horses	Donkeys	Poultry	Other (specify)
Average HH flock for 150 HHs	12	19	0.2	1	1	0.02	0.5	2	0.05
The no. of HH keeping certain livestock	127	122	9	12	67	3	53	43	2
Share of HHs keeping certain livestock	85%	81%	6%	8%	45%	2%	35%	29%	1%

Production practices

Responses of livestock producers on sheep and goat production system used by them indicate that most of them (35%) prefer grazing of their flocks on rangelands except for the winter season when sheep are brought back to household; while almost every third household (33%) form a joint flock to be grazed during the day and returned to the household each evening. And about 13% of livestock producers have a mixed production system combining stall-feeding with grazing on nearby pasture by a family member. According to the expectations data show that smallholders try to minimize their forage and grazing costs as much as possible.



Description of the production systems

a. Joint flock of HHs sent for grazing in the morning and returned to the HHs in the evening, each householder grazes this flock on a rotational basis

b. same like type 1, the difference is that HHs hire a shepherd for grazing the flock

c. animals are kept on rangelands from spring to autumn and each HH for the winter season moves their animals for stall-feeding

d. animals are kept on remote rangelands with the required infrastructure (sheep-fold, etc.) throughout a year

e. livestock producer working in an agricultural cooperative uses his position to graze his own flock with the cooperative's flock

f. stall-fed mixed with grazing on nearby pastures around village, each household grazes its flock separately from other households by sending its family member

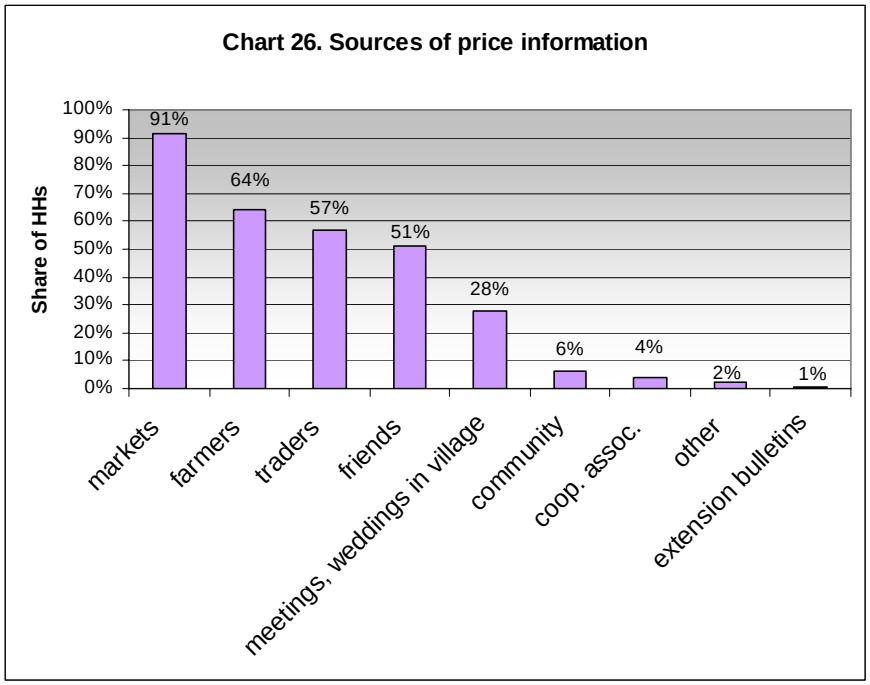
Majority of the households producing small ruminants (96% for sheep and 98% for goats) practice grazing without rotation, while only 3 farmers use rotational grazing. As expected, producers prefer keeping sires for natural reproduction of their sheep/goats, and none of them uses artificial insemination. Many households (80% for sheep and 87% for goats) in terms of feeding completely rely on grazing. At the same time the percentage of smallholders who prefer mixing of grazing with supplementary feeding formed 20% for sheep and 12% for goat producers.

Marketing strategy

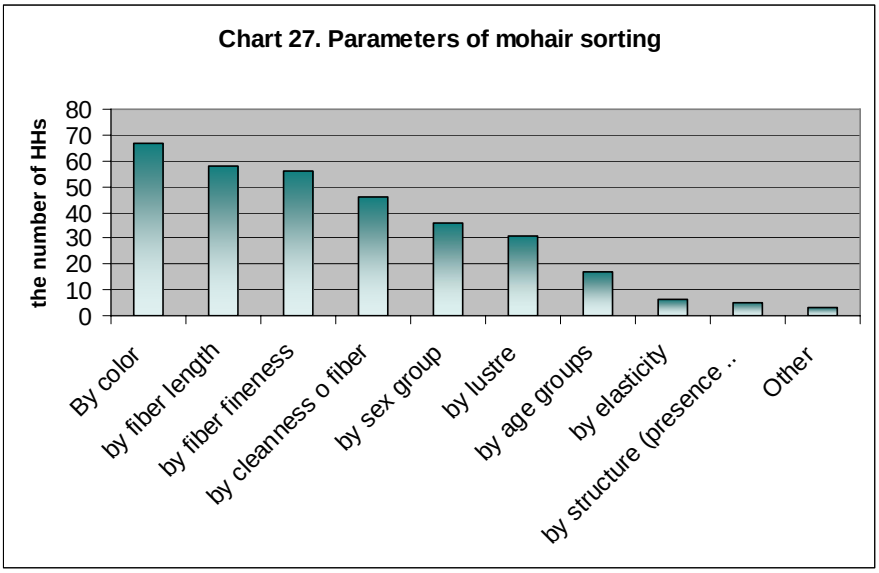
Before selling their sheep a significant part of producers (88%) limit feeding to natural grazing, while 11% of farmers in addition to grazing provide purchased concentrated feeds, and only one household feeds animals by concentrated feeds without grazing.

To the question on the producers' behavior to a rapid mohair price decline, 74% of respondents said they would sell animals anyway, while 17% of households would postpone sales. Some households (8%) would either sell or postpone the sales depending on the circumstances. And three smallholders think that they would keep the mohair for processing.
All producers prefer selling their animals without pre-arranged agreement.
All smallholders make immediate settlements in cash. Most of the households (69%) sort mohair before marketing, while the remaining producers are not concerned about sorting.

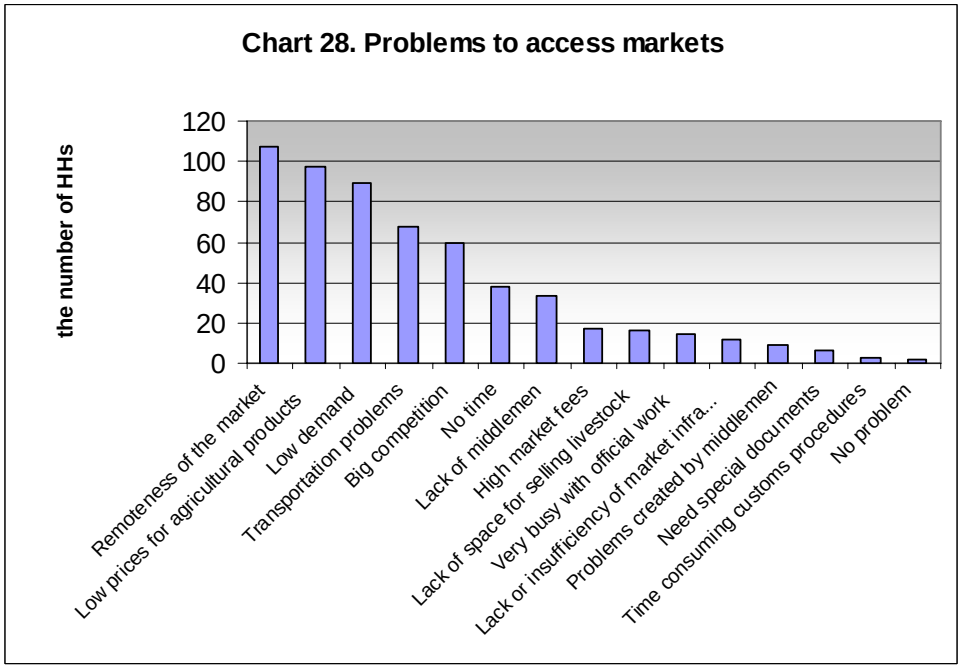
To the question on the information channel smallholders use to find out the latest livestock prices, most of them (91%) mentioned livestock markets, while less households clarify prices from farmers (64%) and traders (57%). Friends (51%) and social gatherings in a village (28%) also help them to get the current price info.



The following chart indicates responses of mohair producers on the parameters considered by them while sorting the product before marketing. As expected, color was mentioned by more than 60 households as the most frequently used criteria. Fiber length and fineness are taken into account y more than 50 mohair producers. Over 40 smallholders think that cleanness of fiber has to be one of the sorting criteria. About 20% of respondents said that the fiber can be better marketed, if it's sorted by sex of the animal and a luster of mohair. As the current outlet for mohair is Russia, and producers target production of a coarse fiber, sorting by age groups is practiced by less than 20 farmers.



Farmers were also asked to list major obstacles for accessing livestock markets. More than 100 households stated that remoteness of markets is the main problem for market access. At the same time, low prices for agricultural products were mentioned as the main problem by more than 90 households. About 90 households mentioned low demand, while nearly 70 producers listed transportation problems as factors limiting their market opportunities. About 60 households think that strong competition makes sales of livestock more complicated.



Activity 2: Mohair traders' survey

Seven mohair markets (including Juma-Bazar, Dusti, Taboshar, Adrasman, Koramozor, Apon, and Bulok) were selected for the survey by March 2008. Traders' questionnaire was adapted and tested for local conditions by May 2008. Enumerators and researchers were trained by May 2008. One hundred mohair traders participated in the survey. First 50 traders were interviewed by November 2008, while another 50 traders provided their answers by March 2009. This survey started in early September 2008 and was completed in March 2009 rather than end of 2008, as many traders were expected to return from Russia to Tajikistan in

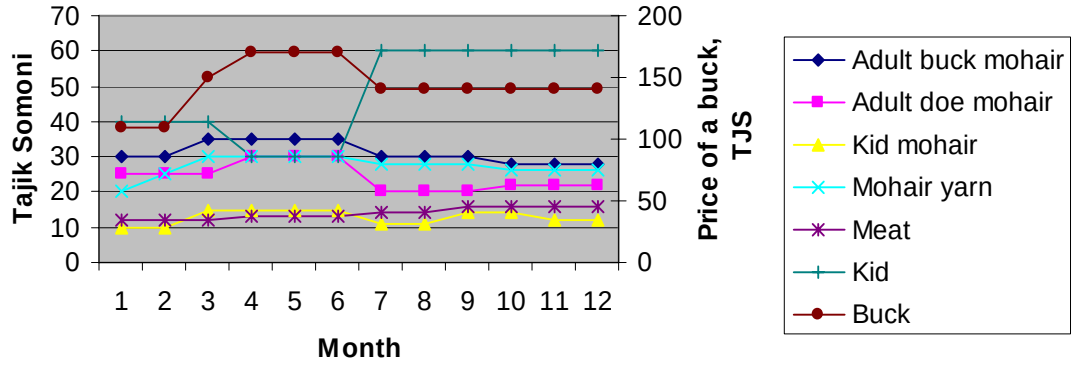
winter. Data entry was finalized by June 2009. Detailed analysis of the survey results will be discussed in the next technical report.

There was no significant change on mohair market. Demand from the foreign buyers remains weak, and mohair as well as yarn prices have not changed in spite of the price hike for staple food and feed/forage recorded in the 1st half of 2008.
There are several reasons of low prices for mohair yarn. Firstly, usually mohair is produced from low quality mohair. The second reason is that smallholders practice mixing of sheep wool with mohair for yarn production. Finally, weak demand at both domestic and foreign markets does not allow selling the mohair yarn at a higher price.

Activity 3: Analysis of price dynamics for livestock products, feed / forage, and staple food

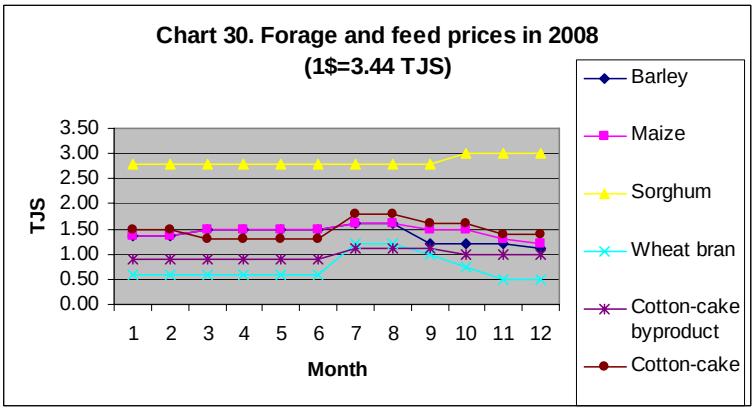
Low prices for 2-4 month old kids in April – June are explained by the fact that producers practice culling of potentially low productive kids before sending flocks to summer rangelands in May. And in July, after flocks returned from ranges, matured six month old kids were sold at a significantly higher price.

Chart 29. Average prices for mohair goat products in 2008 (1$=3.44 TJS)

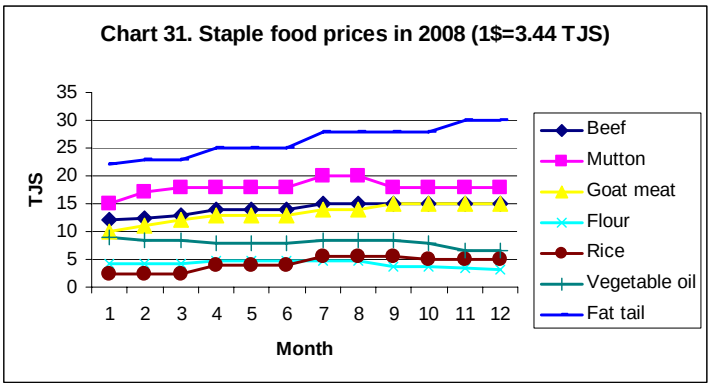


Forage and feed prices reached their highest level in July and August (except for the sorghum). After starting of a new harvest season in September, feed and forage prices went down by the end of 2008 to the level lower than the January level. However, prices in December were still higher compared to the same period of 2007**.** For example, price per bale of a wheat straw and alfalfa formed 15 TJS that is by 3-5 TJS higher than in 2007.

Chart 30. Forage and feed prices in 2008 (1$=3.44 TJS)



Staple food prices showed different trends. Mutton price followed the seasonal trend with top level in July and August (20 TJS/kg or 33% higher than the January level) and some decline in September due to the increased supply of lambs returned from the pastures. By the end of the year the mutton price remained 20% higher than those recorded in the beginning of 2008. Good harvest of wheat in Russia and Kazakhstan allowed decreasing of flour price. In addition, in the second half of 2008, local administration of the Sogd province made an agreement with suppliers in Russia on procurement of wheat, vegetable oil, and forage at lower prices. Furthermore, Tajikistan government decreased the import duty for wheat from 20 to 10%.



Data on the monthly output/input price changes indicates that mohair goat producers benefited the price hike for the mohair products recorded in March and April (surprisingly, kid mohair price fluctuation was the highest among the mohair goat products). However, it was followed by the price shock in July that is mostly attributed to the seasonal weakening of the demand for fiber and mohair products. Rapid feed price increase in July has adversely affected to the marketing opportunities of mohair producers, although it might have had a little impact to the goat producers as most of them rely on the mountain pastures and supplement only during the coldest season. In general, comparison of January and December price ratios shows that by the end of 2008 mohair goat keepers were better off.