

UNDP Kyrgyzstan Environment programme for sustainable development



**UNDP Project “Capacity Building and Environmental
Governance Strengthening for Sustainable Development”**

Suusamyр Valley Household Survey

Developed by Center of Public Opinion Study "El-Pikir" in frame of UNDP Project “Mountain Pasture Management in Valley of Suusamir in the Kyrgyz Republic”



Bishkek 2005

The range of facts contained in this paper, their representation, as well as expressed standpoints do not necessarily match with a position of the UNDP and the Organization can not account to them.

The original paper was written in Russian and translated into English by A. Joldosbekova, the Kyrgyz Republic

The authors of the paper are thankful to all experts for their contribution into the research, their sincere reaction and provided information.

A special thanks are addressed to an independent Agriculture expert Akasbek Abdyrashitovich Abdyrashitov for his valuable proposals and comments to this publication.

LIST OF ABBREVIATIONS

AC	Administrative Code
ADB	Asian Development Bank
AO	Aiyl Okmoty (village government)
LG	Local government
MTB	Material and Technical Basis
FGD	Focus Group Discussion
H	Housekeeping
NSC	National Statistics Committee
UNDP	United Nations Development Programmer

The report was prepared by the Center for Public Opinion Survey “El-Pikiri”: E. Ilibezova, L. Ilibezova, R. Toktosynov, E. Selezneva- Bishkek 2005, 37p.

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Introduction

The purpose of this research is to provide information on social and economic status of families living in the Soosamyр valley their dependence on livestock farming and their expected reaction to introduction, stipulated by reconstruction and development of the outrun livestock farming, pasture rotation and partial re-orientation towards yak and camel farming and other alternative sources of life support. The participation and presentations in all discussions on development of the project document “Regime of Sustainable Management of pastures in the Soosamyр valley” – one of the most important research functions.

The Soosamyр valley is located in the territory of the айыл окмоту. The soosamy AO includes six villages: Soosamyр, Kaisar, Tynyк, Pervoye Mayia, Kojomkul, Karakol, and Kyzyl Oy. According to the AO the total number of households at present time composes 1354 homesteads, the population is 6418 people, out of which 3162 are of age 18 and elder. The ethnic structure of the AO residents is homogenous – 99.9% are the ethnic Kyrgyz and there are only two Russian families. There are five schools in the AO that teach 1473 children, there is one hospital, ambulance station and four medical obstetrician stations. The AO has two club houses, four libraries and three baths. All social and cultural facilities require and overall repair. There are 56 trade outlets, livestock market, and five mini-mills. The poverty line according to the is 18.5% which in average is higher than in the rayon (16.1%).

There are three ADB clean water access project implementation communities in the AO.

The region specialized in livestock farming in the Soviet era and farmed sheep/goat, and cattle. It retained large farms and winter cattle-folds.

This study was initiated by the UNDP in Kyrgyzstan . The implementer of the project was an independent non-governmental organization, the “El-Pikir” Center for Public Opinion Studies, that professionally specializes in conducting research and works at present time as international consultant in five CIS countries.

The researchers thank specialists of the key government structures, representatives of international and non-governmental organizations in Kyrgyzstan for their interest to the project works, information and data support, and comprehensive collaboration.

The team addresses a special gratitude to residents of all villages of the Soosamyр valley that participated in the study for their sincere gratitude and informative discussions.

Methodology

The research covered views of different layers of the society ranging from regular households and chabans, heads of government structures, researchers and international organizations.

The field stage of the study combined quantitative and qualitative methods of information gathering.

The quantitative method contained a representative information on social and economic condition of households in the studied villages, their relation to new initiations in the management of remote and near-ravine pastures, and others.

The qualitative study was conducted through profound interviewing of stakeholders and profound interviewing in the selected villages. The basis for recruitment were such criterions as: - excellent awareness about the work of the community, participation in its activities, the analytical way of thinking, age, ethnic, gender and professional differences.

The target groups of this research consisted of:

- Experts – 40
- Residents – 900
- Farmers, specialized in cattle farming – 15
- Owners of road side cafes – 15
- Vendors selling on the road - 30
- Truckers -20
- Private carriers (taxi drivers) -30

A special section in information gathering was devoted to analytical reports held by stakeholders. For these purposes, along the profound interview, the analytical information gathering was carried out which became a basis for composition of sampling of communities created by stakeholders.

Sampling

The quantitative method covered villages of the Soosamyр AO, the data on number of the interviewees contained in the below. The stratified equal weighted sampling was used for the selection of respondents. In total 900 respondents in the age of 18 an over have been interviewed by a quantitative method. In total the study generalized opinions of 1050 people.

Table 1. Statistics on the number of the questionnaird

Location of the Study	Number of Households
Soosamyр	382
Kaisar	49
Tounyk	90
Pervoe Mayia	93
Kojomkyl	137
Karakol	22
Kyzyl-Oi	127
Total	900

Pictures 1. The Layout of Villages



Бишкек-Суусамыр - 140 км

Instruments

3 tool kits have been developed for information gathering: for local residents, communities, and stakeholders. Each questionnaire had its own specifics and consisted of sections related to activities of residents, communities, and stakeholders.

Data Base and Analysis

The introduction of the data base was conducted with the special Blaise language. The program of introduction of the data base envisaged logical and arithmetic supervision.

- The analysis of quantitative analysis was completed through SPSS with obligatory calculations of frequencies, cross tabulations, significance tests
- The quantitative analysis was conducted with translation from Kyrgyz and analysis of analytical information collected from stakeholders.

1. Characteristics of Respondents

Trade and Public Catering on the Bishkek-Osh Highway

The existing social and economic situation in the Kyrgyz Republic, abrupt decline of production in agriculture, failure of formerly large scale collective farms that existed in the form of kolkhozes and sovkhozes, supplemented by widespread unemployment that became a specially acute for such a remote rural region as the Soosamyр valley.

Since the entire freight traffic and transport communication between the north and the south switched on to the Bishkek-Osh highway, it became the main source of living for adjacent villages.

The spontaneous trade and public catering sites emerged along the highway, aimed only at servicing the passers-by.

Prevailingly, these cafes are based not in specially designed buildings, rather they are stationed in train cars or in light constructions that are quite modestly furnished and equipped.

The study demonstrated that in most of the cases, the owners of all trade sites are registered as private enterprisers and have patents for trade for a limited period (up to one year), with no exact specification of location which enables to move around.

In general these are residents of adjacent villages. For heating and cooking they use electricity taken from the power transmission lines (with counters installed) as well as fire-wood, pressed dung and gas.

The water for drinking and cooking is taken from rivers- the system of artesian wells is non-existent. The cattle for meat (mainly sheep) is grazed along the highway. The same is true with milk mares, whose milk and koumys are offered to clients of shopping sites. The study revealed that a permanent grazing of the cattle in the same territory leads to severe depreciation of near-road pastures.

The early vegetable are brought in from the Chyi oblast through drivers.

In general, the selection of products on sale is quite limited- these are different cheeses, muy (butter) kaimak (sour cream), koumys (drink mad of mare's milk) – in most of the cases these are domestically made products and products taken for sale from neighbors.

It appears that , there is not system of organized garbage disposal along the highway, as a result, the territories around cafes is contaminated; organic food and household waste is pitched into river or stockpiles nearby the cafe. When asked of what would the entrepreneurs when there will be no place for stockpiling garbage, they answer

It looked to us that there was no orderly system of roadside garbage collection. As a result, territory around the café is littered - food waste and household waste are dumped into rivers or near the cafe. In answer to the question on what entrepreneurs will do when there will be no more space for

dumping the garbage they said, “*I will move my wagon a bit further*”. We got an impression that it is this category of survey participants who make the most sizable negative impact on the region’s environment.

Major dependence on the numbers of passing visitors makes the owners of trading spots cooperate closely with passing drivers – truck drivers (regular clients, supply of food items – pasta, alcoholic drinks, tea, sugar , etc.) and passenger bus drivers (bringing in clients).

Roadside trading spots and cafes are subject to frequent extortions from controlling bodies - tax inspection, police, energy officials of various level (mostly of rayon and local level) - in the form of free lunches.

Residents of Suusamyr valley involved in trade and catering along the Bishkek-Osh road have quite high revenue – on average 40% higher than average farmer.

Bishkek-Osh road Drivers

The survey showed that an established nexus of drivers is operating who have been working on this highway for a long time. Most of them are residents of Osh and Jalal-Abad oblasts (regions). Depending on the type of transportation the drivers are grouped into long-range drivers (truck drivers), drivers transporting light industry goods by small amounts (minibuses), and private passenger transportation drivers.

Drivers who have been working more or less regularly establish close contacts with roadside traders. There is mutually beneficial cooperation as a result of which roadside cafes receive visitors, traders – clients and drivers – free meals.

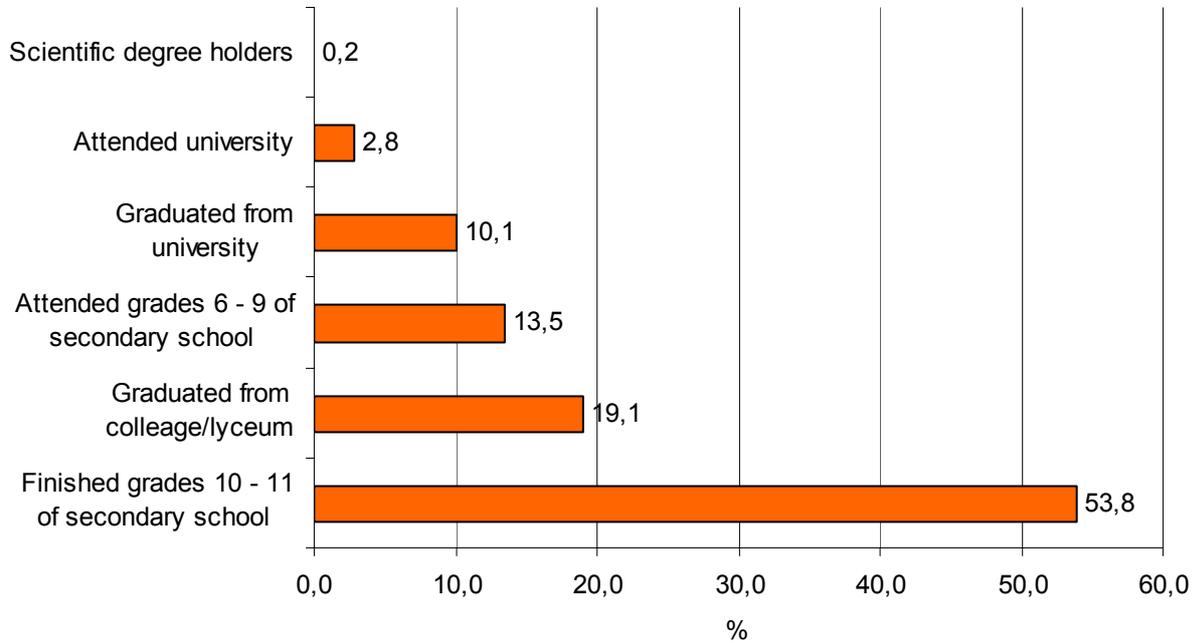
Like previous participants of the survey, drivers take part in polluting the territory along the roadside by leaving rubbish and items after car repairs.

Drivers are part of the category of people who are not residents of Suusamyr valley, they are passers-by who are not really interested in environmental issues and protection of natural resources. They are mostly interested in problems related to their regions and not Suusamyr valley.

People

The survey revealed that most of Suusamyr valley residents are ethnic Kyrgyz, and are very friendly and open respondents. The average size of a household is 5.5 persons. Most of respondents have high school diploma. Only 10% of those surveyed said that they have university diplomas.

Chart 1.1. Educational Level of Respondents



Specialists with higher education (university) and incomplete higher education are employed in health and education sectors.

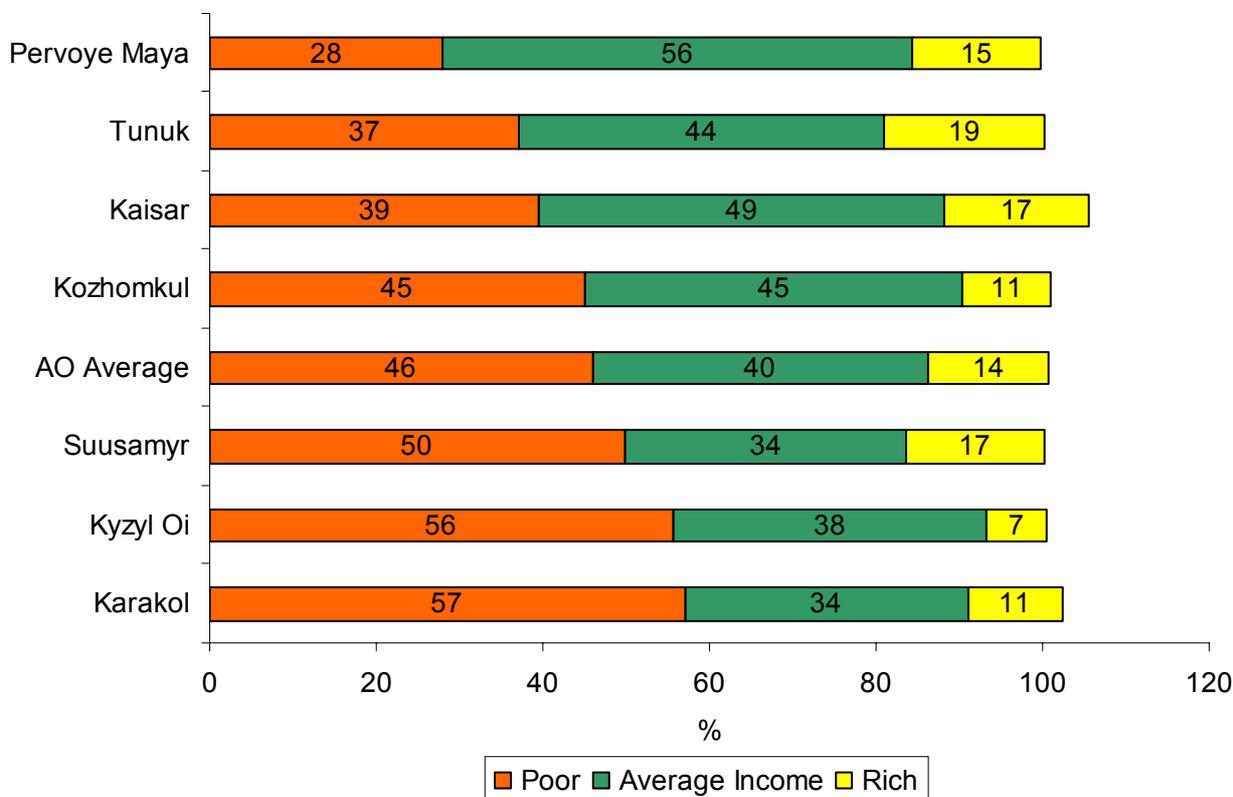
Majority of Suusamyr Ayil Okmotu (AO) residents rely on livestock farming (86%) and less (14%) on other employment areas like trade and entrepreneurship.

2. Household Profiles

Poverty

To determine subjective poverty assessment all respondents were asked to determine how many families in the village were poor, had average income or were well-off.

Chart 2.1. Subjective Poverty Assessment by Residents



According to people’ assessment nearly 46% of families in Suusamyр AO are poor, 40% have average income and approximately 14% are considered rich. Analysis of subjective assessments by place of residence helps to identify the poorest and richest villages in the AO as is perceived by local residents. Thus, among the poorest villages in the AO we could name Karakol (57%), Kyzyl Oi (56%), and Suusamyр (50%) where the number of the poor families, as perceived by the residents, is higher than average for AO. Kozhomkul, Kaisar and Tunuk villages could be categorized as average, with a perceived poverty level of 37-45%. Pervoye Maya village according to respondents could be considered rich – only about one third of households (28%) were perceived poor, and the largest number of households were categorized as having average income.

Rich families could be found in every village, their average number in AO is 14%, most of the rich families, according to respondents, live in Tunuk, Kaisar, and Suusamyр villages (17-19%) and least – in Kyzyl Oi (7%).

Table 2.1. Averaged Household Profiles

	Land, hectares	Number of sheep/ goats, heads	Number of horses, heads	Number of cattle, heads	Availability of a vehicle	Agricultural machinery, pieces
Poor family	5,9	2,9	0,2	0,4	0	0
Average family	11,3	29,5	2,25	2,72	0,38	0
Rich family	27,5	250	24,8	13,8	1,37	1,3

From Table 2.1 we can see that poor families have about six hectares of land, up to three sheep/goats, and rarely a cow or a horse. Poor families do not possess a car or agricultural machinery.

Households with average income, according to respondents, have twice as much land and more of livestock. Some families have Soviet cars. Like poor families, households with average income do not possess agricultural machinery.

Rich families own substantially bigger land plots of up to 27.5 hectares, several hundred heads of sheep/goat, tens of horses and cattle. These households have one and sometimes two cars, and own agricultural machinery.

Based on these data, we can say with good degree of certainty that the gap between rich and poor, poor and average families is significant and insurmountable for most poor families.

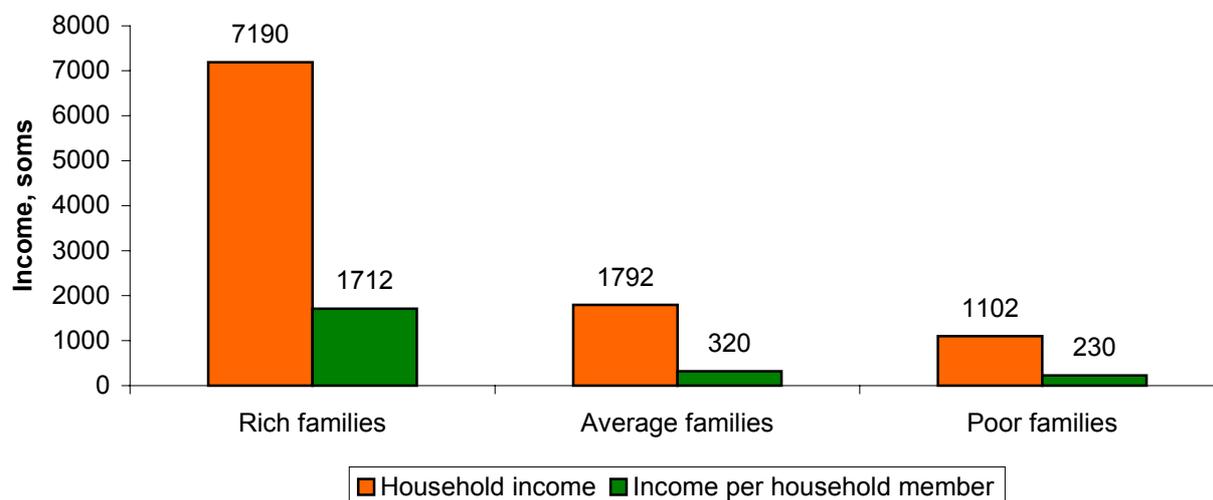
When asked to assess their own welfare, the number of respondents who consider their households poor or rich reduced sharply (27% and 1%, respectively).

Income

The study of the income structure showed that:

- 86% of population rely on livestock farming and
- 14% rely on other sources of employment such as trade, entrepreneurship, civil service, production.

Chart 2.2. Income Level by Types of Households



According to the questionnaire survey the average monthly income of households in Suusamyр AO is 335,6 soms per household member. The survey revealed that nearly 16% of households do not receive any income and rely on subsistence farming.

Rich families have income of up to 7190 soms per family and 1712 soms per household member, families with average and low incomes receive 1792 soms and 320 soms, 1102 soms and 230 soms, respectively. It is important to note that families with average and low incomes have almost the

same income per household member as compared to the rich families, which indicates major poverty gap in Suusamyrr valley.

Sources of income stated by respondents are found in Chart 2.3.

Chart 2.3. Income Sources

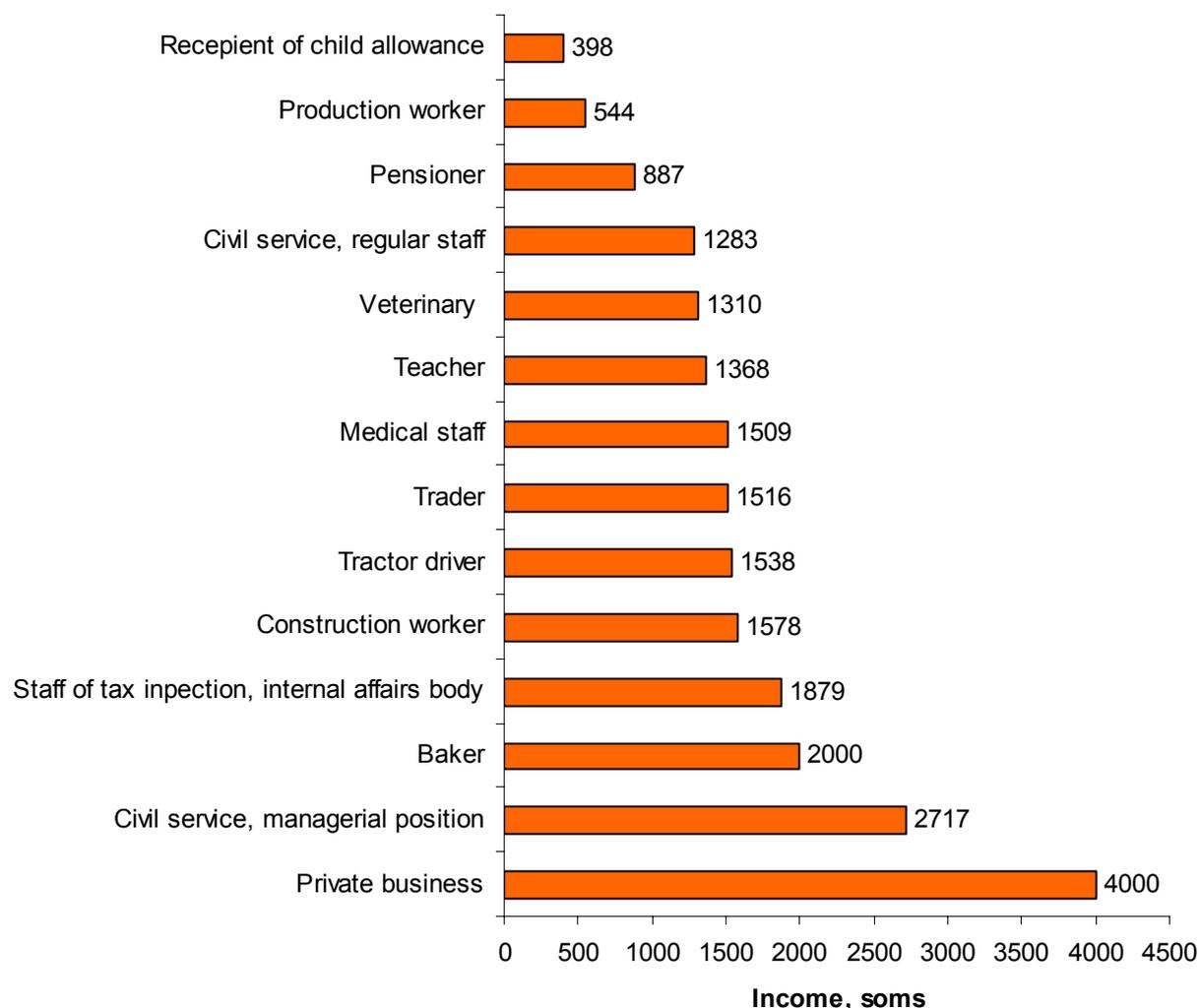
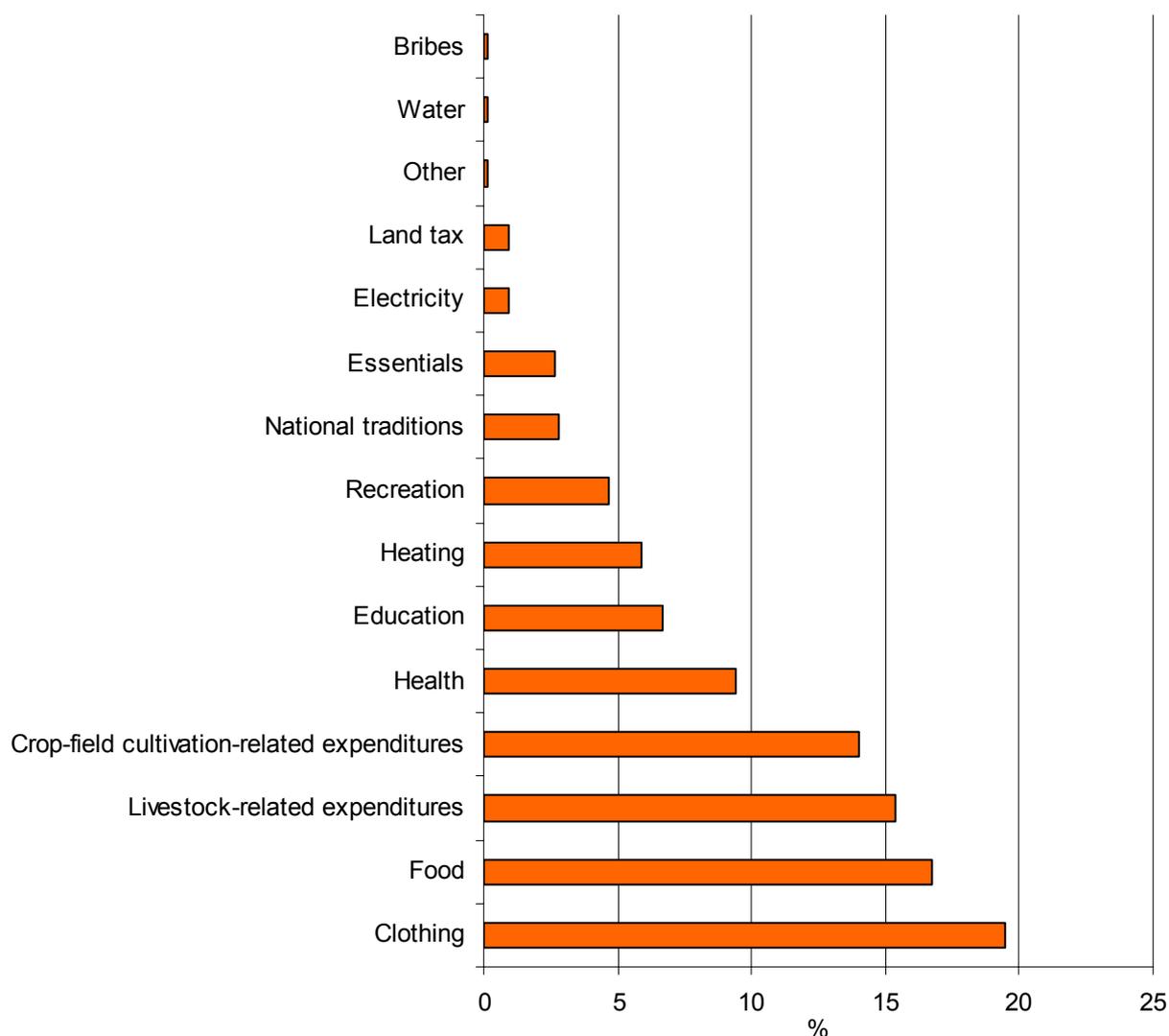


Chart above shows that most highly paid areas of employment is private business - that brings up to 4000 soms of income per month - and civil service – 2700 soms. In descending order we see such occupations as baker, policeman, and construction worker. Lowest incomes are found among pensioners, guards and cleaning staff, as well as recipient of child benefits.

Structure of Expenditures

Analysis of averaged data on household expenditures in surveyed villages showed that the expenditure side of the budget consists mostly of 12 items (Chart 2.4). The largest expenditure items are purchase of food and clothing (36%). The next largest expenditure items are related to livestock farming (17%) and field-crop cultivation (15%). Only around 9% of family budget is spent on maintaining good health, and slightly less - on education (7%). About 6% is spent on heating and preparation of food. Further analysis shows that recreation accounts for almost as much as observance of national customs and purchase of essentials put together.

Chart 2.4. Structure of Expenditures for Surveyed Households



As we can see survey respondents reported that land tax was not a burden and accounted for less than one percent of family budget.

Other expenditures (observance of national traditions and customs, electricity, land tax and other) are relatively minor and together do not exceed 7%.

It is important to note that practically no corruption or bribery was reported in this locality. This trend was confirmed throughout the survey period.

Thus, we can conclude that for residents of the surveyed area livestock breeding and field-crop cultivation are the two principal areas of employment that take the most out of the family budget.

Expenditures on Field-crop Cultivation and Livestock Breeding

This finding is supported by the structure of expenditures on field-crop cultivation and livestock breeding if looked at individually. As can be seen from the charts below, expenditures on tillage (payment for machinery, fuel, etc), harvesting and seeds are the mains ones in field-crop cultivation. Expenditures on mineral fertilizers are minimal. The main reasons are high cost and unavailability.

Chart 2.5. Structure of Expenditures on Field-crop Cultivation and Livestock Breeding

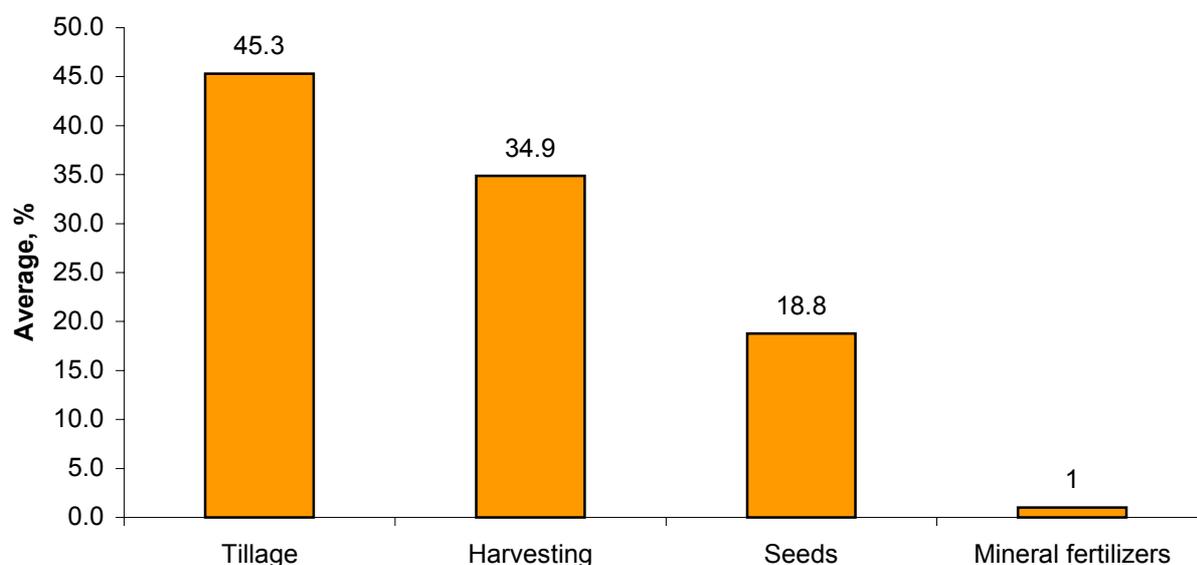
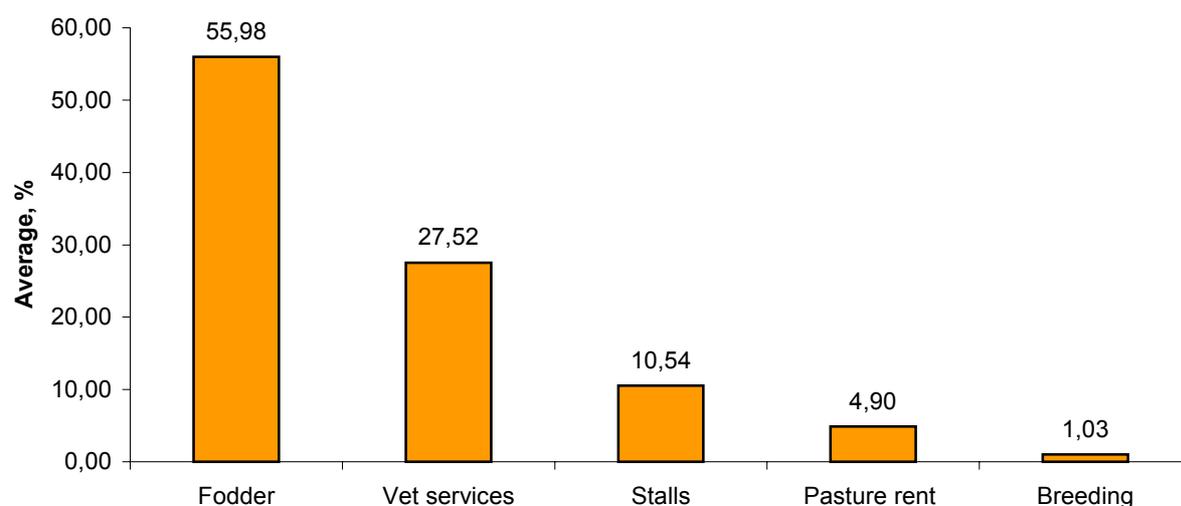


Chart 2.6. Structure of Expenditures on Livestock Breeding



Most of expenditures on livestock farming go for fodder and vet services. Note that breeding expenditures are almost absent, which suggests that breeding is not done at all or is insignificant in Suusamyri valley villages.

3. Farm Profile

Organization of farms

According to respondents, relatively large number of people (75%) have personal farms and are categorized as peasant farms, and have a status of a legal entity or farm without establishing a legal entity. Activities of such farms are based mostly on personal labor of family members, relatives and

other people who jointly produce agricultural goods. In this situation the land and other property belongs to members of the peasant farm (as owners) or leased officially to a registered peasant farm.

Only few residents (around 1%) united into collective farms. Collective farms include agricultural cooperatives, joint stock companies, all types of associations and collective peasant farms. Widely spread in Suusamyr valley is the collective peasant farm type.

In general we can say that new forms of organization such as agricultural cooperatives have not given root in the valley. To develop agricultural sector in line with the new Law on Cooperatives efforts should focus on creating production, service, trade, and other types of cooperatives.

Livestock and Export Opportunities

Our survey showed that one of the problems in livestock farming is lack of accurate statistics on current number of livestock by types. In relation to this question we collected information from three sources:

- Form 7. Livestock counting (National Statistics Committee) on 1 January 2005
- Aiyl Okmotu (village cluster authorities) – July 2005
- Population – August 2005

In Table 3.1 one can find data on livestock numbers by source of information. It is clear that data from the first two sources is similar but differs from the numbers reported by residents themselves. We are inclined to think that data received from residents requires certain caution in interpretation¹. Our assumption is based on the fact that aiyl okmotu can provide only estimated figure for July, which does not take into account arrival of offspring. Besides, authorities are interested in underreporting statistics on livestock to account for increase in meat production, which is included in calculating the GDP of the district or the region. In reality, most of livestock slaughtering occurs in autumn, while in summer it is minimal.

Table 3.1. Livestock per Household by Source of Data

	National Statistics Committee	Aiyl Okmotu	Residents (arithmetic average)	Arithmetic average error
Cattle	2,0	2,1	3,11	0,2
Sheep and goats	14,7	16,3	23,4	1,8
Horses	0,15	1,9	1,86	0,17
Poultry	3,5	3,5	5,55	0,5

Arithmetic average and median - taking into account standard error - show that households in Suusamyr valley rely heavily on livestock farming.

Dispersion in the number of reported livestock affected the increase of arithmetic average but did not negatively affect admissible error. Note that median, indicating density of responses, gives higher probabilistic error than average, especially for item 'sheep/goats'. For this reason, from now on for our analysis we will use arithmetic average.

¹ Survey objectives did not include counting livestock by type. Information was collected from the words of respondents.

On average there are three heads of cattle in a household. Responses ranged from 1 head (31% of respondents) to 90 heads (less than 1% of respondents) per household. At the same time 59,2% of respondents said that they have 2-3 cattle heads, 22,8% - 4-10 heads, and 1,1% - 11-13 heads, and about 2,4% - 14-90 heads.

About 20,7% of households do not own sheep or goats, 30,1% of yards have 2-10 heads of sheep/goat, 29,8% - 11-30 heads, 16,8% - from 30 to 100 heads, 2,6 % from 100 to 650 heads.

36% of households do not own horses, 42,7% of households own 1 or 2 horses, 19,8% own from 3 to 10 horses. 1,4% households – from 11 to 80 horse. Note that maximum number horses was 80 heads.

Majority of residents (99,3%) are not engaged in yak breeding. Maximum number of yaks reported for one household was 30.

56,3% of families do not have poultry. 14,6% own 1 - 6 poultry heads. 20,4% - 7- 15. 7,2% have from 15 to 30 birds, and only 1,5% have 40-200 birds.

Table 3.2. Number of Livestock in one Household and Export Opportunities (arithmetic average), by livestock type

	Cattle	Of which, cows	Sheep and goats	Horses	Yaks	Poultry
Current number of livestock	3,11	2,03	23,04	1,86	0,8	5,55
Could be sold without harm for the farm	1,12	0,33	2,95	0,18	0	0,24

In order to explore export opportunities, we have asked each respondent to answer a question “How many heads of livestock (by type) could you sell without harm for your farm this year?” Analysis of replies showed that Suusamy valley residents are able to sell some of the cattle and sheep/goats. There is no motivation to sell cows that are kept mostly for reproduction and milk (consumed by the family). People are not inclined to sell poultry and yaks either. Poultry - because of high profitability and small numbers, and yaks – because of low selling prices. With sufficient motivation – presence of a sausage unit and milk processing unit - residents could sell a lot of meat and milk. In our opinion, one of the export opportunities for Suusamy valley lies in marketing thoroughbred horses.

Breeds spread in Suusamy Valley and improvement of breed

Each respondent was asked a question about most widely spread breed of cattle and sheep in their village. In responses to this question people used a phrase “local breed”.

It turned out that no breeding activities are carried out in villages. Nearly 90% of respondents agreed with such statement. Most of the cattle and sheep are breedless. Sheep skins are coarse which reduces export demand for its wool. According to shepherds, this year demand for sheep skins dwindled to zero. Last year young entrepreneurs came and bought some skins.

It seems to us that people need to be systematically told about advantages of high yield cattle farming (for instance, fine-fleeced and Ghisar sheep breeding) and careful breeding activities.

Loans for purchase and breeding of high-yield sheep, goats, and cattle would be very helpful for local population. High-yield breeding activities in the valley should be closely monitored. It is important to have government policy on breeding and promote breeding farms that could produce and test types of livestock appropriate for different localities.

It was interesting to learn at what prices and where Suusamyр AO livestock goes. Table below provides prices by types of livestock.

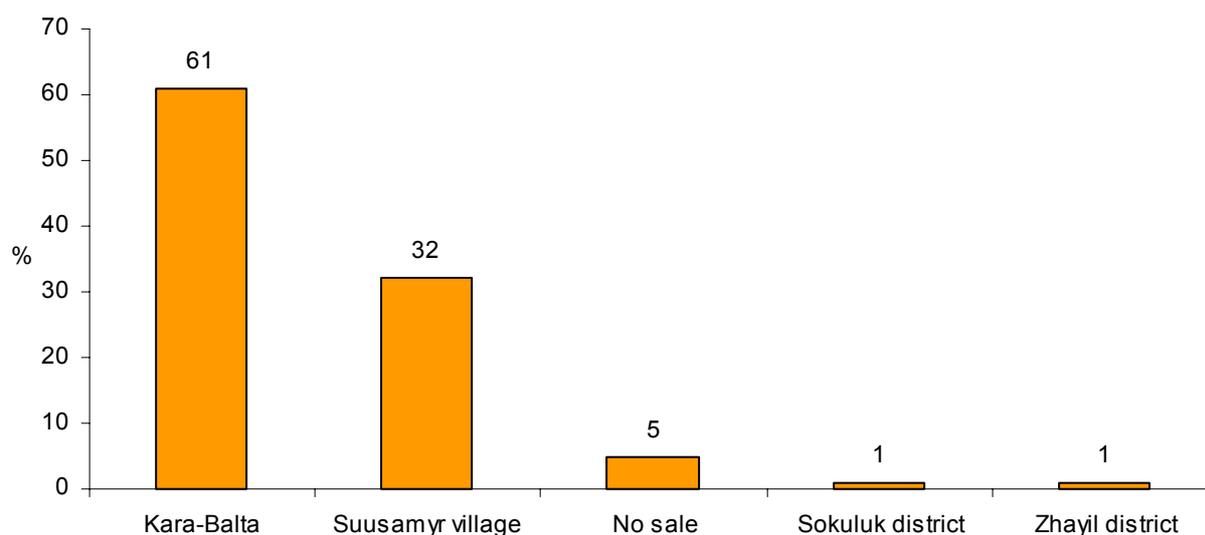
Table 3.3. Selling Price Range

	Price range, soms	Maximum price, soms
Cattle	9-15 thousand	20 thousand
Cow	10-18 thousand	20 thousand
Bulls	3-8 thousand	10 thousand
Calves	1-4 thousand	6 thousand
Sheep/goats	1,5-3 thousand	3,5 thousand
Horses	15-20 thousand	25 thousand
Yaks	0	
Poultry	50-70	100

The main difficulty with selling livestock is transportation. It takes up to 500 soms to transport one horse to a bazaar in Kara-Balta town. For this reason, people take livestock to the nearest large market only if they have money and enough time. In other cases residents take livestock for sale at the local market in Suusamyр village.

Chart below shows principal livestock selling points.

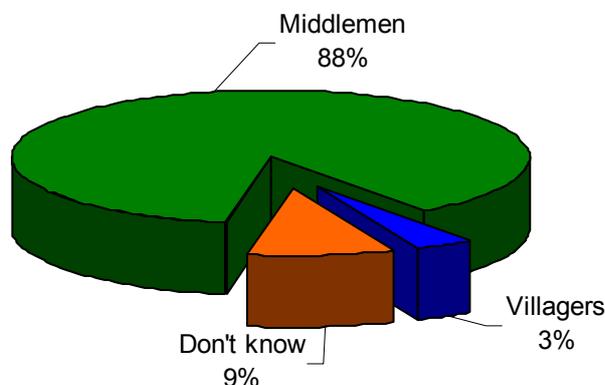
Chart 3.1. Livestock Selling Points



Most people sell live livestock on the markets of Chui region. Nearest lying Kara-Balta town is the main market. More than half (61%) of meat products is taken to this town. Most wholesale buyers come to Suusamyр village. Note that about 5% of households don't sell livestock at all. As the chart shows, most people don't have possibility for transporting livestock beyond Kara-Balta town. But delivery of meat to the markets of Bishkek and Tokmak cities would allow producers from Suusamyр valley to get access to Kazakhstan's market.

Livestock is sold mostly to middlemen who are present on all markets. Note that movement of meat from the producer to Bishkek market raises the price of a kilo of meat by 50%. About 3% of livestock is sold by live weight to local residents who buy livestock from fellow villagers for reproduction.

Chart 3.2. Buyers of Suusamy valley Meat



It is important to mention that in respect to meat sales Suusamy valley is cut off from markets in the south of the country, Kazakhstan, and Uzbekistan.

Availability of fodder

Large number of respondents (nearly 70%) gave affirmative answer to the question “Is there enough of own fodder for the livestock?” However, about a quarter of respondents said that own fodder is not enough. The main reason is maintaining livestock numbers that are difficult to feed. People compensate lack of fodder by cutting grass on free lands. Purchased fodder includes combined fodder (3-4 soms per kilo) and hey (1-2 soms per kilo). There are practically no fodder sales in Suusamy valley. Only 2% of respondents said that they used to sell fodder. There were instances when people sold 2-20 tons of fodder.

4. Suusamy Valley Pastures

Use and condition of pastures

According to respondents, people use mostly near-village (55%) and distant pastures (52%). Only one out of ten households relies on intensive-use pastures.

Use of pastures changes with seasons. Distant and intensive-use pastures are used mostly in spring and summer, near-village pastures - year round. Overgrazing on near-village pastures in the summer leads to depletion. Residents of Kozhomkul and Suusamy villages mostly use near-village pastures in the summer. This has to do with weak motivation of villagers to take livestock to distant pastures and give up established living conditions in the summer.

Legislative support and activities aimed at improving living conditions on distant pastures and intensive-use pastures, higher rent fees for near-village pastures depending on the time of the year, tightened control over use of all types of pastures could contribute to reducing pressure on near-village pastures in the summer period.

Chart 4.1. Use of Intensive-use Pastures, by seasons

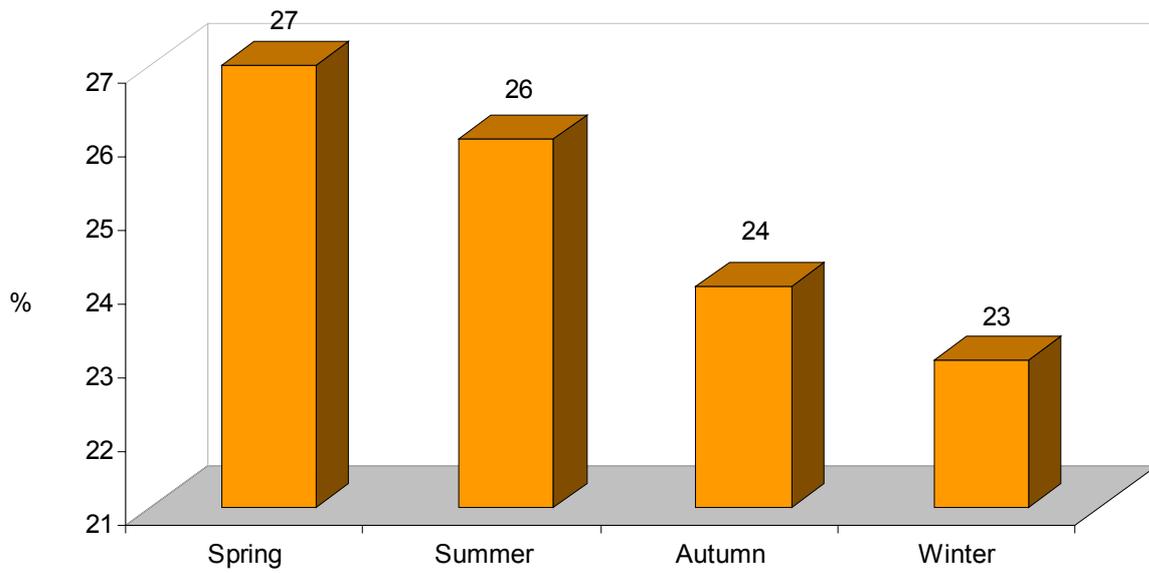


Chart 4.2. Use of Distant Pastures, by seasons

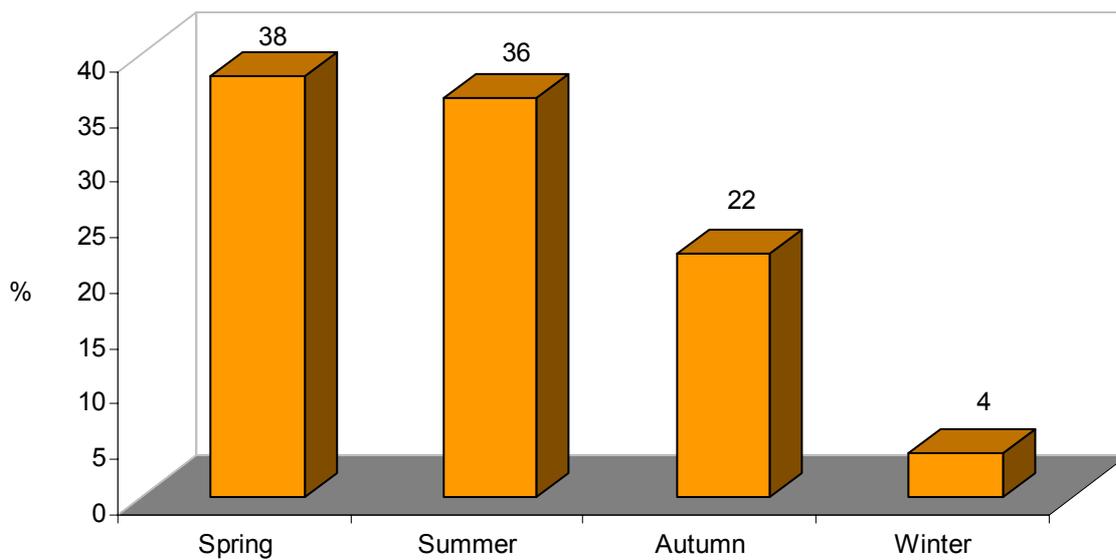
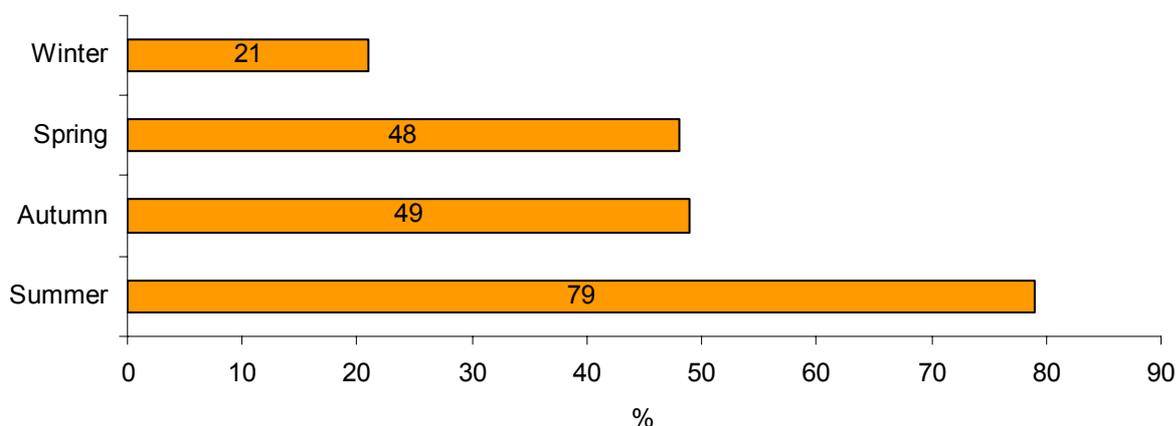


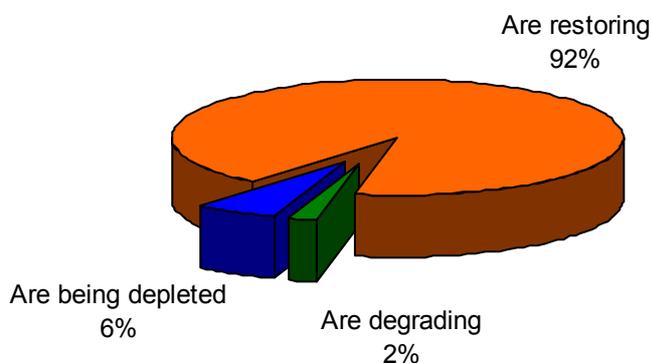
Chart 4.3. Use of Near-village Pastures, by seasons



However, with all the drawbacks use of pastures in recent years did not lead to their degradation. And our hypothesis on degradation of pastures in Suusamyr was invalidated.

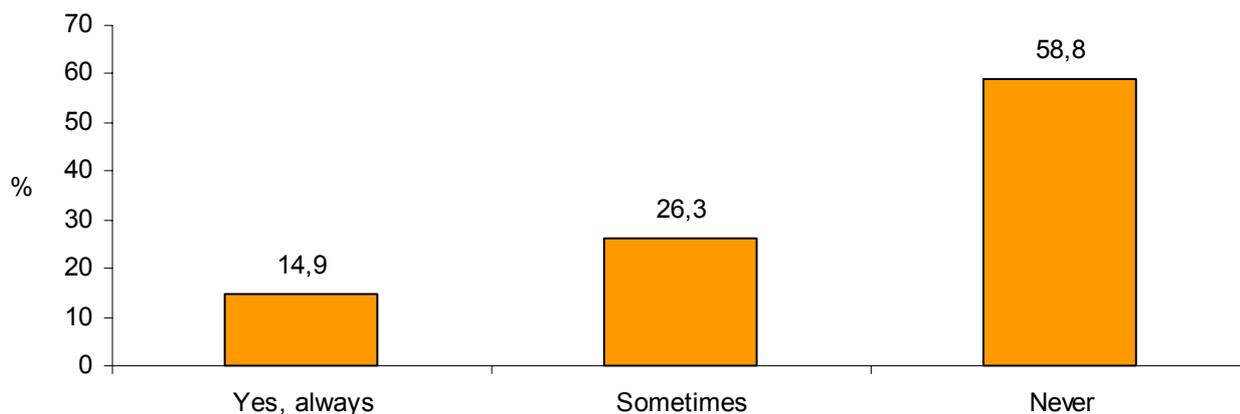
Residents were unanimous that in the past 10-15 years all types of pastures were gradually restoring. Over 90% of surveyed villagers agree with this opinion. However, with general improvement, respondents say that near-village pastures are subject to certain degradation. Number of respondents who drew attention to degradation of near-village pastures was 5-6 times higher than for other types of pastures.

Chart 4.4. Changes in the Condition of Pastures in the past 10-15 years



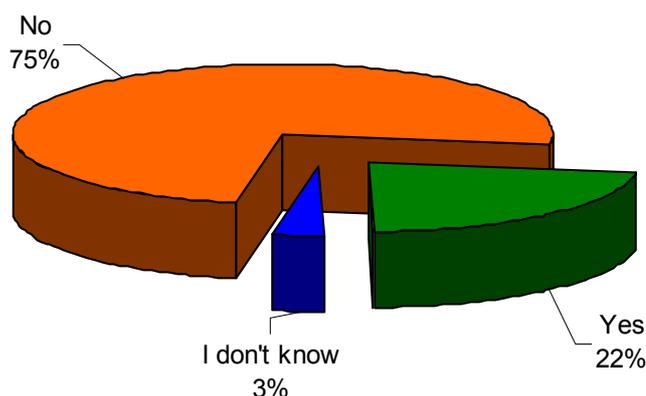
Residents think that distant pastures deplete mostly because no fertilizers are being added, intensive-use pasture deplete because of land erosion caused by rainfall, and near-village pastures – because people use them without limiting the number of heads per hectare of pasture. Besides, Chart 4.5 shows that nearly 85% of people do not follow pasture rotation practices.

Chart 4.5. Pasture Rotation Practices



Among common factor leading to destruction of pastures respondents mentioned lack of control over the use of Suusamyry valley pastures. It is clear that scientifically-sound work is need on the use of pastures, which should take into account pressure per hectare and pasture rotation.

Chart 4.6. Availability of Special Cattle-Driving and Cattle Platforms



According to the answers, people are not aware of what cattle platforms are, but are knowledgeable of cattle driving. Although most respondents did not confirm availability of special cattle drives or platforms all respondents said that they have no problems related to cattle driving. 97% of respondents said that as regards cattle driving everything is done properly. The main reason is large free areas of pastures and relatively small number of livestock heads grazing.

Pasture rent, self-acquisition, and use by private persons ad companies

Relatively large number of respondents (nearly 90%) think that newly arrived businessmen, deputies and large firms practically do not use Suusamyry valley pastures.

Most of pastures are rented by local residents. Payment for one hectare is official and amounts to about 23 soms a month. Cases of corruption, nepotism and such were not reported.

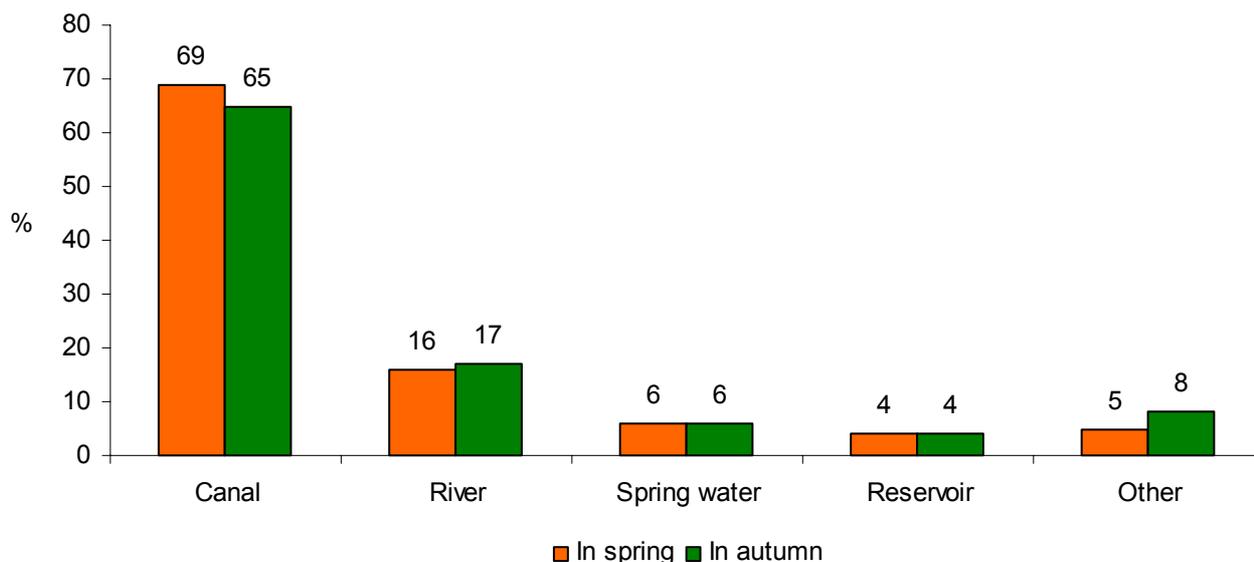
Answering the question “Please name places that were taken over illegally” people mentioned Sandyk, Berdibai tract, Ak-Sai, Torpu, Kyrgak-Aikyn, Kara-Kol, Suulu tor, Novyi Put, Aramza, Zhoon –Dobo, Ak-Suu, Tokoilu, and Uch emchek.

5. Ecology

Livestock ponds

Talks with villagers and shepherds revealed absence of problems with livestock ponds in Suusamy valley. In more than 80 cases out of 100 canals and rivers are used as livestock ponds. Approximately in 10 cases out of 100 livestock can drink from springs and reservoirs. No seasonal fluctuations in the situation were observed.

Chart 5.1. Sources of Drinking Water for Livestock



Most of livestock ponds do not have facilities, but most of respondents think that this does not affect pollution and swamping of water sources and drinking places. Experts and specialists with whom we consulted said that there was need in creating facilities around livestock ponds because of relatively small number of livestock and cost of such facilities.

Chart 5.2. Availability of Facilities at Livestock Drinking Sites

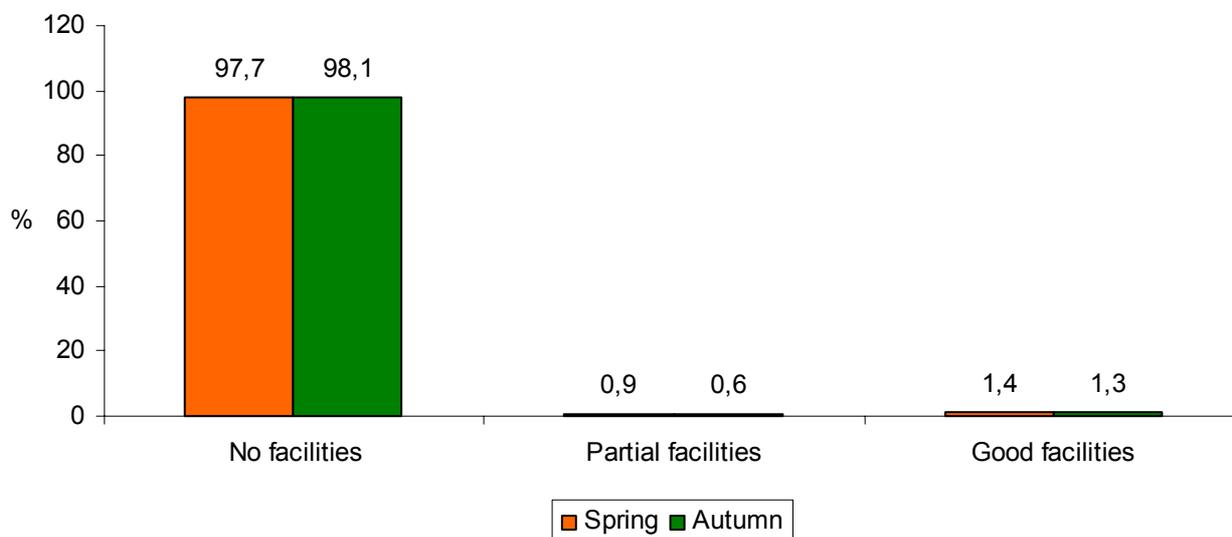
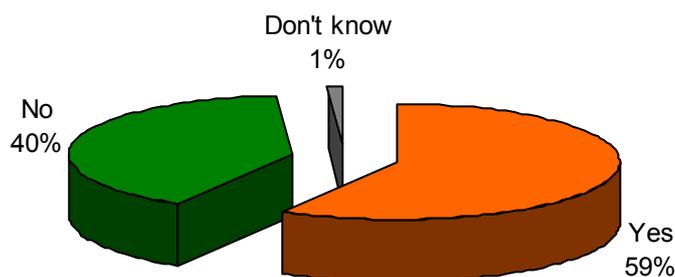
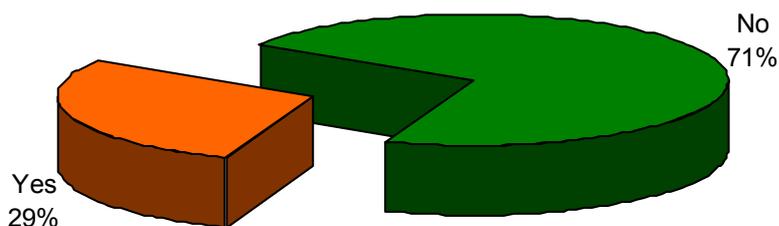


Chart 5.3. Observance of Livestock Watering Regime



According to residents, in half of all cases they do observe livestock watering regime. Two out of three agree with this opinion. About 40% of respondents said that they do not observe livestock watering regime.

Chart 5.4. People's Opinion About Pollution and Swamping of Waster Sources



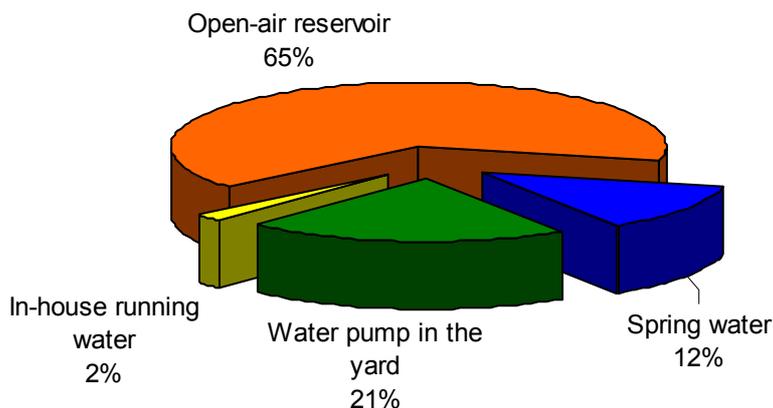
These conditions have little effect on pollution of water sources. Relatively large number of respondents (71%) thinks that water sources are not being polluted. At the same time few respondents – one out of four - said that water sources are being polluted. There were practically no respondents who had difficulties in assessing the situation with pollution of water sources.

Access to Drinking Water

Suusamyr residents remember that during Soviet times Suusamyr valley had several artesian wells. Wells do not operate because burned out motors. Nobody is involved in rehabilitation of wells.

About 80% of the population obtains drinking water from natural water sources and springs. One out of five – from water pump in the yard and 2% can boast in-house running water. Nobody said that they had to bring water from the neighboring village.

Chart 5.5. Sources of Drinking Water for Residents



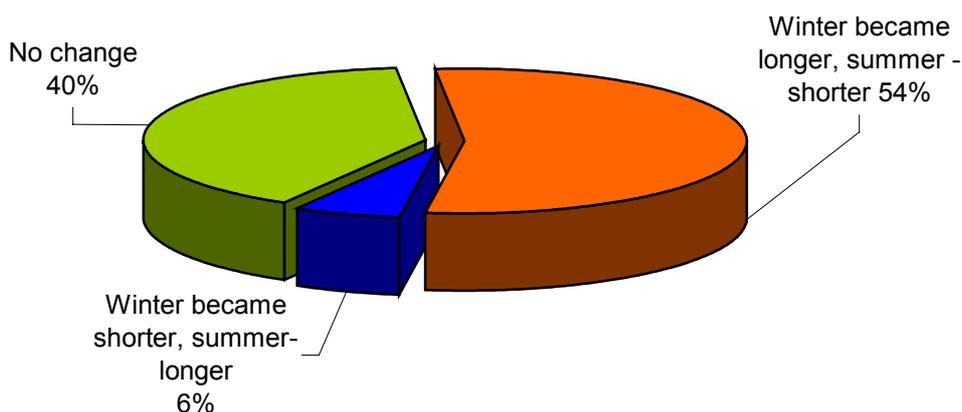
Climate

Suusamyry valley has peculiar climate. Winter covers the valley for practically 7-8 months a year. According to people who live the climate is slowly changing.

Most respondents think that climate has changed dramatically in the past 15 years. More than half (54%) support this point of view stating that winters became longer and summers shorter. At the same time two fifths (40%) of respondents said that climate has not changed.

Most surveyed residents perceive that the climate in the valley has changed dramatically in the past 10-15 years - winters became longer, summers - shorter.

Chart 5.6. Climate Change in the past 15 years



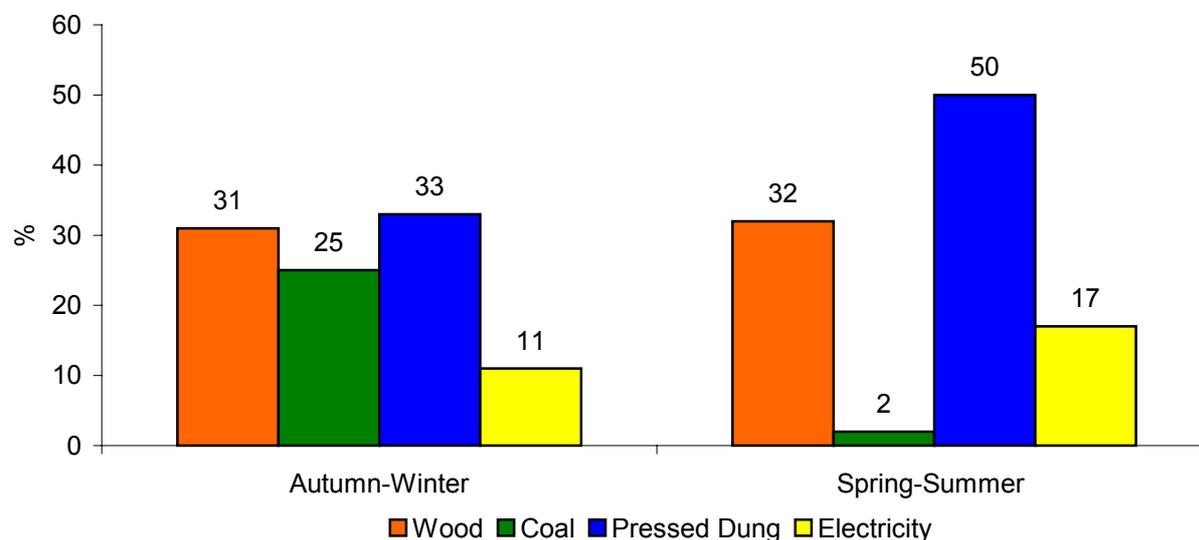
Types of Fuel Used

Due to climatic conditions problems related to heating of houses, preparation of food and general energy availability are becoming more acute.

In response to the question about main sources of fuel, respondents could give only several types of answers. Aggregated results are provided below.

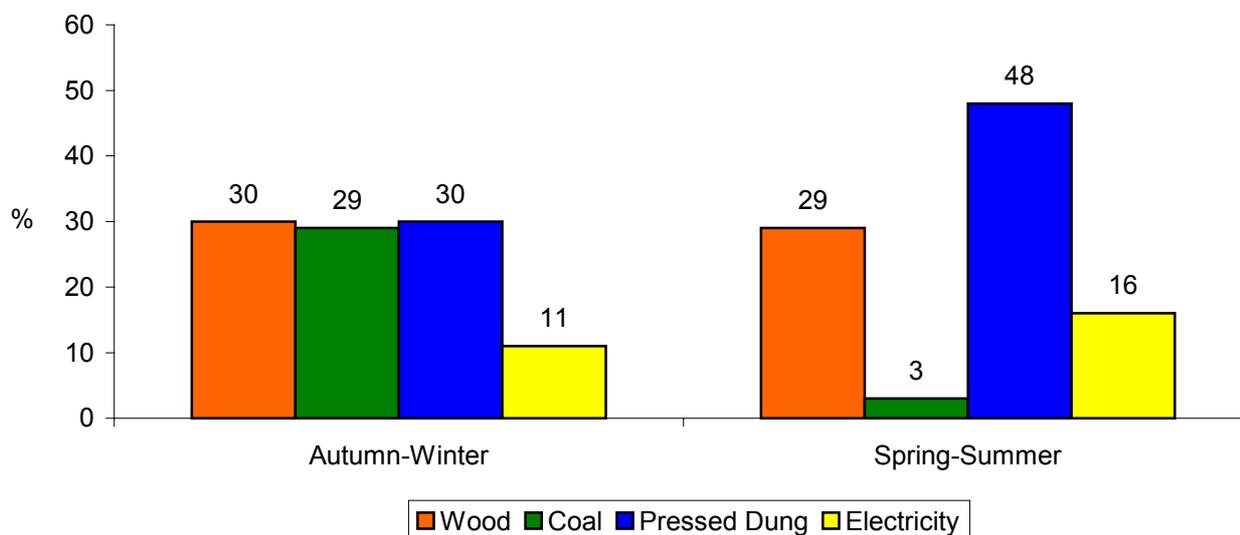
To heat houses in fall-winter period people use all types of fuel equally, except for electricity, which is not so accessible or affordable for most residents of this mountain valley. During spring-summer period wood and pressed dung, stocked up by the residents themselves, are main source of heating for houses.

Chart 5.7. Types of Fuel used for House Heating



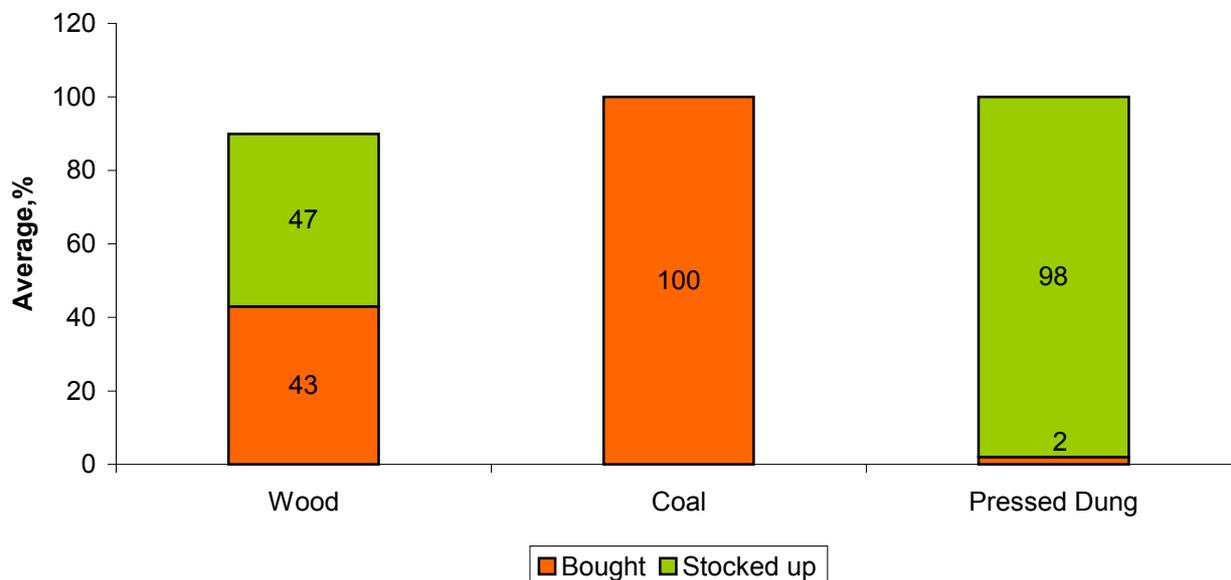
Identical trend is observed in relation to types of fuel used for food preparation. In many cases this could be explained by the fact that usually the house is build in such a way that food is prepared on the same furnace which is being used to house heating.

Chart 5.8. Types of Fuel used for Food Preparation



While pressed dung is stocked up by the families themselves, 43% of wood is bought at the local market.

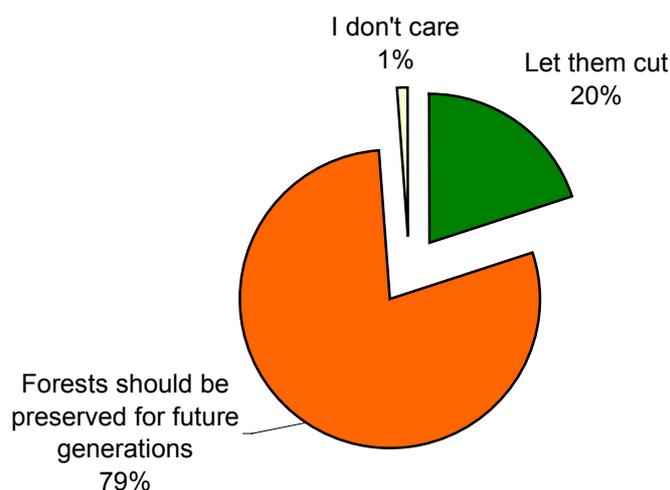
Chart 5.9. Sources of Fuel



Cutting down of trees

Since wood is one of the main sources of heat it was interesting to learn people’s opinion about cutting down of flood land forests.

Chart 5.10. What is Your Opinion about Cutting Down of Flood land Forests?



Nearly 80% of Suusamyri residents realize the importance of conserving these forests for future generations. Some residents cut down trees but every year plant new ones, giving themselves assurance of availability of wood for heating in the future. At the same time one of five had a different position.

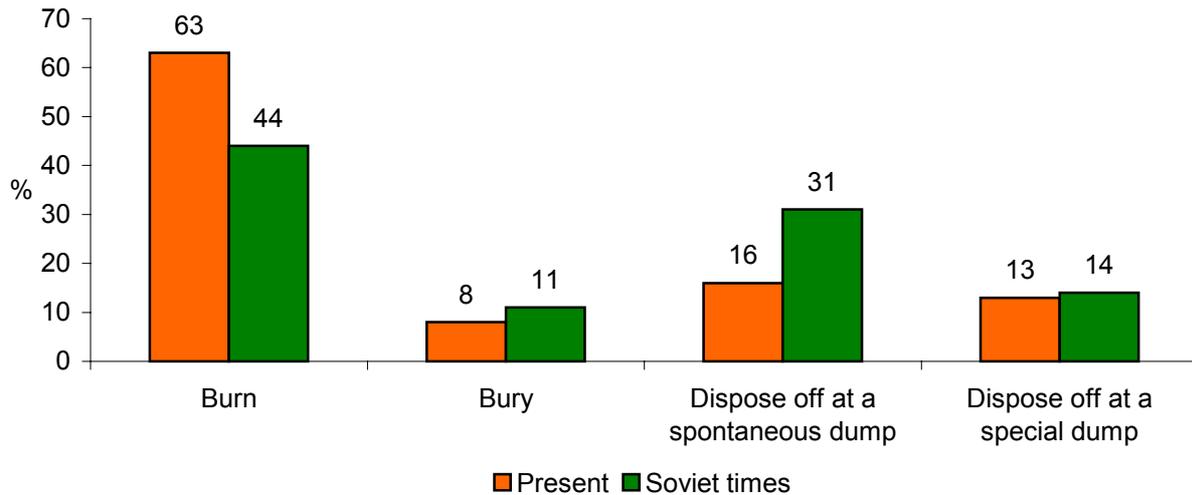
«What can I do? We are forced to cut down trees. Why think about future when we can die of hunger and cold today».

We often heard people complain about high price of coal:

«Who would cut down the forest if coal was not so expensive!?»

Ways of Garbage Disposal

Chart 5.11. Ways of Garbage Disposal



As the Chart shows, although 15 years have passed since collapse of the Soviet Union garbage disposal practices remained the same. It is notable that people were able to maintain the special garbage dump sites allocated during Soviet times.

The most widely spread way of garbage disposal is by burning, the share of population preferring this way of garbage disposal has increased by 20 percentage points – from 44% up to 63%. The second most widely spread method is dumping in «spontaneous dumps». Note that while 31% of residents resorted to this method during Soviet Union, the number has since halved down to 16%.

We got an impression that roadside trading and cafes are the main environmental scourge for Suusamyry valley and the main cause of rivers pollution and degradation of roadside pastures.

Problems with lack of garbage containers and cemented lots for garbage containers had their impact on Suusamyry valley as well.

6. Pasture Management

Attitude to pasture management regime

Study of people's attitude to pasture management covered several issues: observance of Government Resolution № 360 «On procedure of leasing and using pasture income and distribution of money from pasture leases» by renters; should pastures be given into long-term lease; who should manage pastures and why; assessment of existing management arrangements; people's attitude to installation of facilities near livestock watering sites; people's attitude to introduction of

community-based pasture management scheme, and probability of creating such communities in Suusamyр valley.

The survey helped to reveal the following:

- People are poorly informed about the legislation on pastures;
- Poor awareness of rights and obligations dominates among tenant farmers;
- Legislation concerning length of grazing, change of grazing sites, creation of stalls is practically not observed;
- Tenant farmers could not name activities for protection of pastures from wind, water and other types of erosion;
- Pastures are not monitored for purposes of rotation.

One of the possible reasons of such situation is lack of motivation to follow the Resolution due to large areas of unused pastures and relatively small number of livestock on pastures.

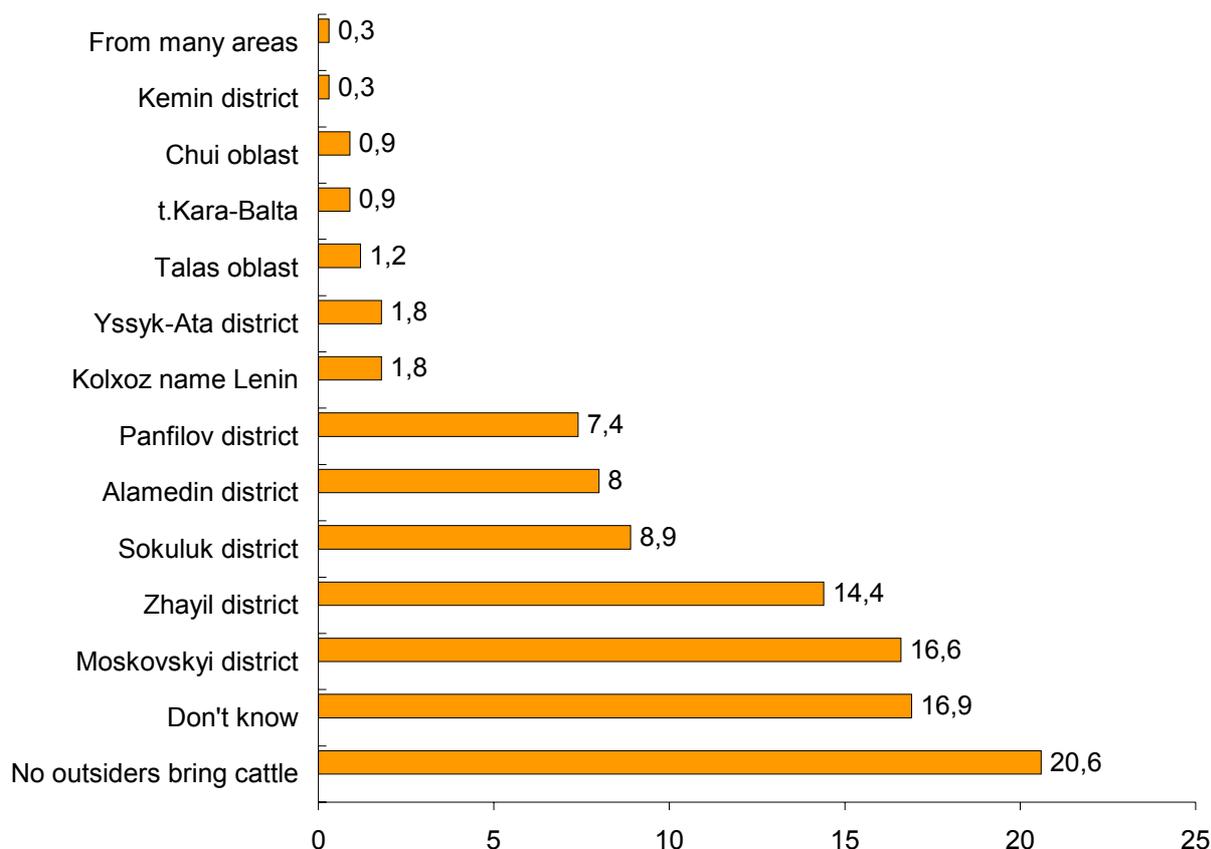
In Chart 26 we present user categories for Suusamyр pastures. The chart makes it clear that neighboring districts of Chui oblast are the principal users of Suusamyр valley pastures. Pastures are used by representatives of Talas oblast less often. No representatives from southern regions of the country and from Kazakhstan are present.

We must note that information about who uses what kind of pastures in Suusamyр Aiyl Okmotu is lacking. Moreover, experts had difficulties answering the question about who collects this information and what agency supervises this issue. An assumption was made that possibly rayon or oblast level authorities collect this kind of information. According to the Resolution these powers are given to the State Register.

«State Agency on Registration of Rights for Real Estate under the Government of the Kyrgyz Republic is to analyze legality of providing pasture lands to legal and physical persons in the period from 1991 up to now and submit proposals to the Government of the Kyrgyz Republic.»

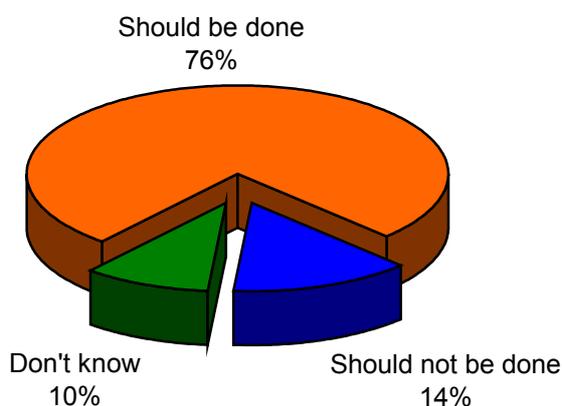
Government Resolution № 360 Kyrgyz Republic

Chart 6.1. Pasture Users



At the same time most people (76%) hold that all pastures should be managed by Suusamyr Aiyl Okmotu. The remaining number of the surveyed either support opposite point of view or have difficulties answering this question.

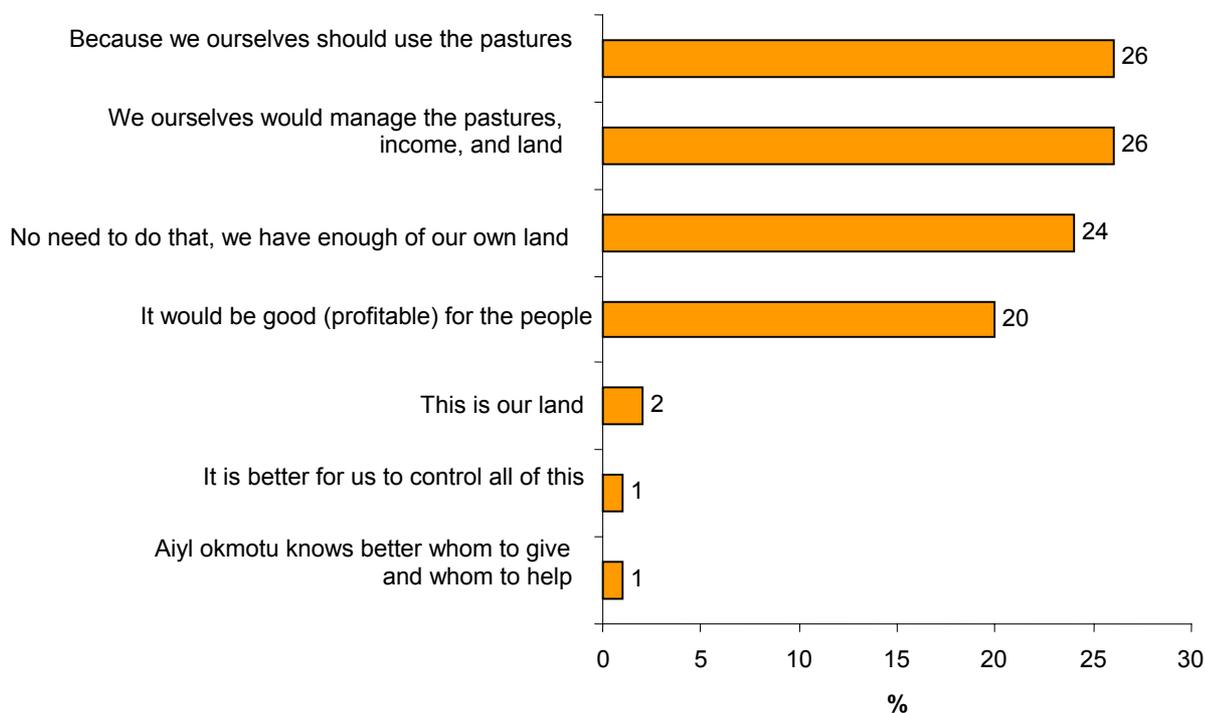
Chart 6.2. People's Opinion about Transferring all Pastures under the Management of Suusamyr Aiyl Okmotu



Most frequently cited argument in support for this decision was that “We should use, manage and receive income from our pastures ourselves.” After detailed elaboration of the question 10% of residents decided to change their position in respect to the need to transfer pastures to Suusamyr AO. In general about one fifth of residents said that pastures should not be given to Suusamyr AO, since “there is enough of our own land.” In our opinion shifting opinions of this category of

respondents has to do with poor awareness of the matter and thus, in making serious decisions, should not be taking as a foundation.

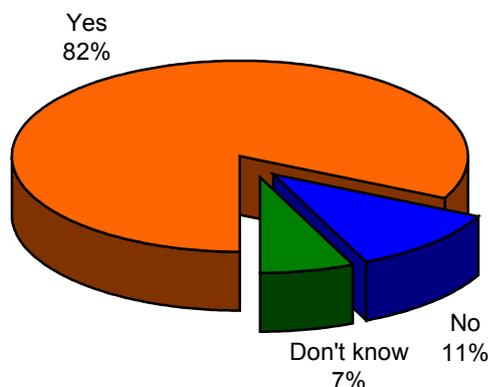
Chart 6.3. Motivation for Transferring Pastures to the Management of Suusamyri Aiyl Okmotu



According to legislation rent revenue from near-village, distant and intensive-use pasture use is distributed in different ways.

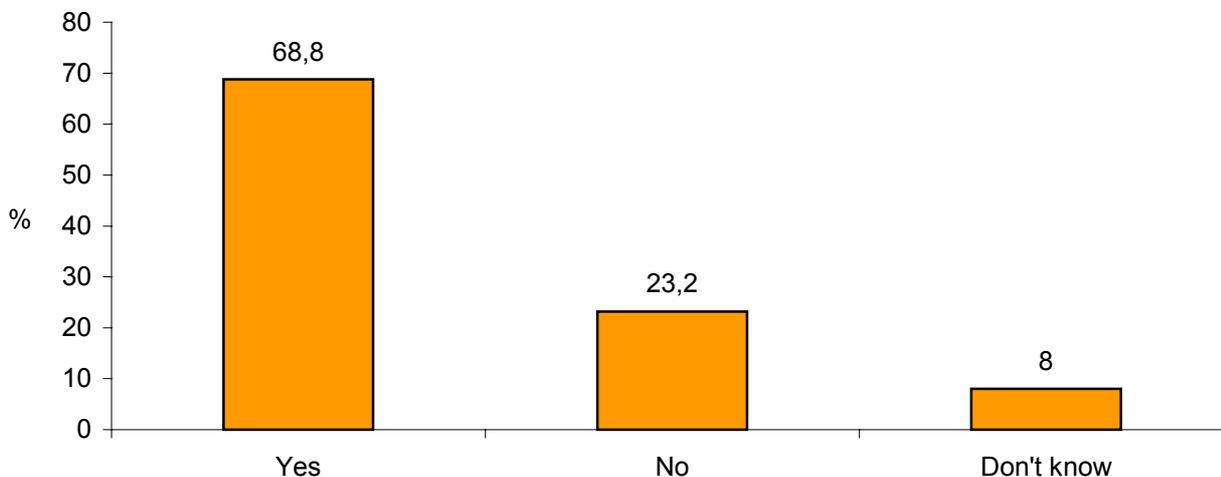
As the survey showed, 82 percent of people think that rent revenue of distant pastures should be left in the local budget. According to aiyl okmotu representatives at present money from lease of near-village pastures stays within the aiyl okmotu, but the rent fee is too small even to maintain small staff.

Chart 6.4. Opinion about Transfer of Rent Money from Distant Pastures into local budget



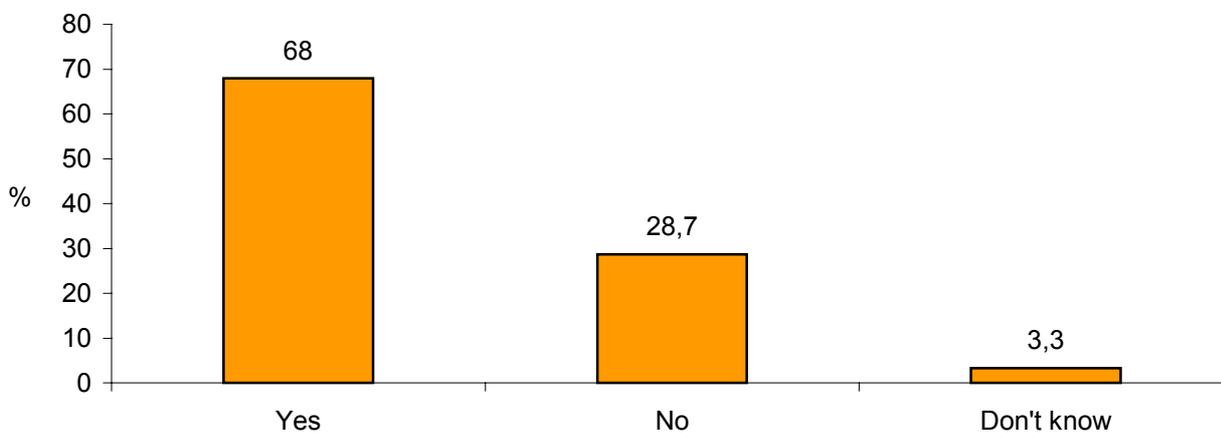
In general, many people are satisfied with the present form of pasture management. Approximately a quarter would like to see it change.

Chart 6.5. Satisfaction with Existing Pasture Management Arrangement



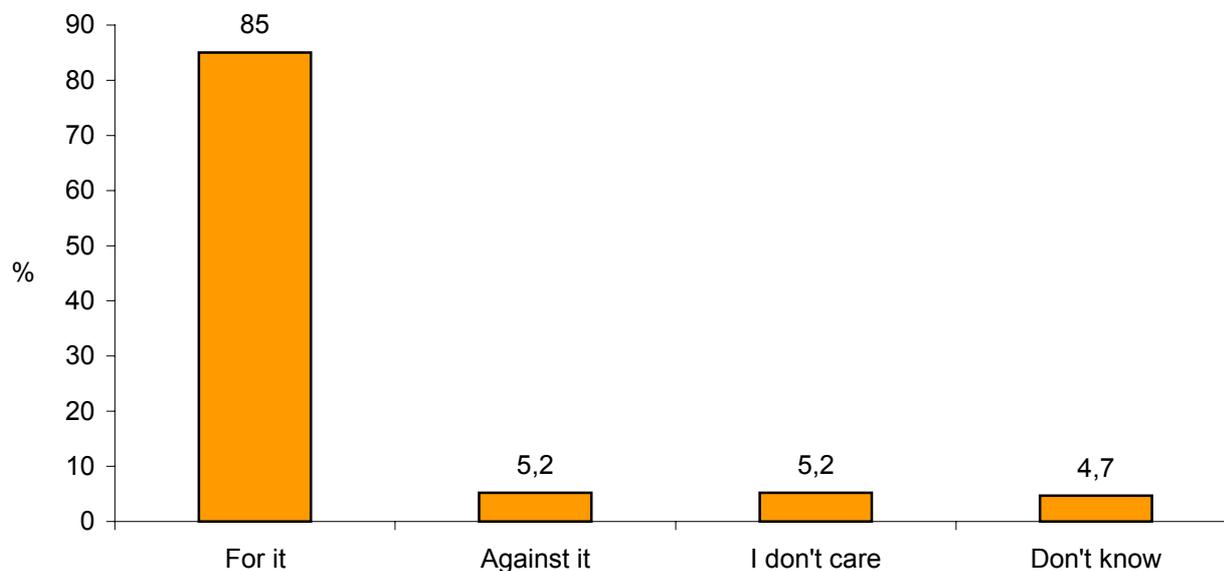
Change in pastures management regime should allow for long-term leasing and development of community-based pasture management. 68% and 76% of respondents, respectively, hold this opinion. New form of management and long-term use of pastures will encourage higher responsibility for pasture use, greater control from the community, and higher consciousness of every community member.

Chart 6.6. People's Attitude to Long-Term Pasture Leasing



Although people do not create facilities at livestock watering sites and most do not see the need in doing so due to small number of livestock compared to the Soviet times, 85% of Suusamyr valley residents think that creation of facilities at livestock watering sites and their regulation is needed.

Chart 6.7. People's Attitude to Creation of Facilities and Regulating (Liming) Livestock Watering Sites



«Tenant farmers are obliged to:

- use pastures only for intended purposes, preventing deterioration of environmental situation as a result of their activities;*
- observe pasture rotation practice, term and length of grazing, prevent overgrazing of pastures;*
- change sites of summer grazing not later than two weeks and return to the same spot as least one year after that;*
- establish temporary animal stalls at least 100 meters away from rivers and water streams, places of sheep washing should be agreed with local environmental authorities and located at least 300 meters away from water protected zones;*
- carry out work on superficial and deep improvement of pastures in order to raise their productivity, prevent littering and pollution of pastures, as well as biological and chemical contamination of livestock watering sites; ...»*

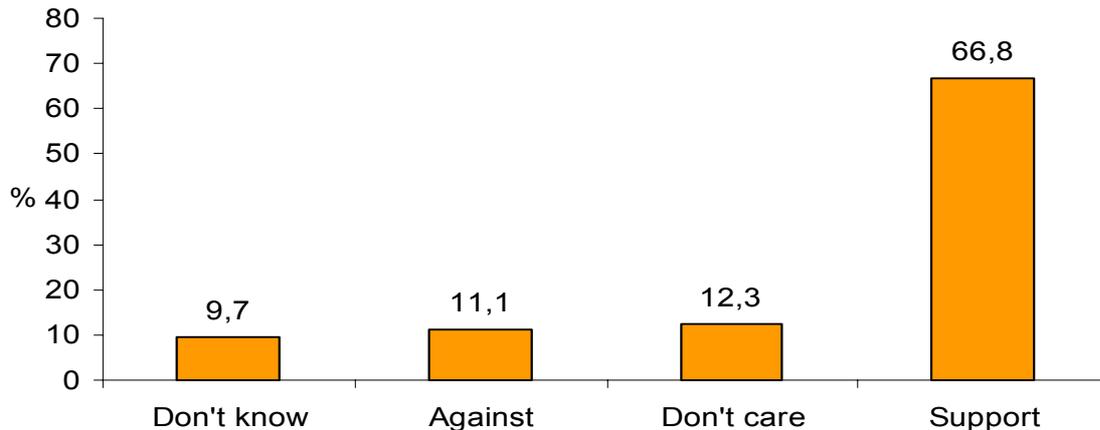
Format of agreement on pasture rent

attached to the Government Resolution # 360

Creation of Pasture Users Associations

Creation of pasture users association was supported by people along with improvement of existing system of pasture management. Association will help producers not only to sell their products in an organized matter and find large buyers for meat, milk, *kumys* (fermented mare's milk), but also raise quality of produce and develop support services.

Chart 6.8. Population's Support for Creation of Pasture User Associations (Commercial Livestock)



However, the survey revealed that people are not ready to unite into associations on their own. Residents are poorly aware of modern forms of cooperation and association. Thus, some respondents associate any form of unification with collectivization of property and no right to exist such associations.

«Why should I cooperate? We will bring out livestock together like in Soviet collective farms, then take turns to tend it, but somebody will overlook my sheep or exchange it for vodka. What will I do then».

Associations should be created only after proper explanatory work, provision of legal support, improvement of legislation, creation of mechanisms for legal protection of association members and property of each member.

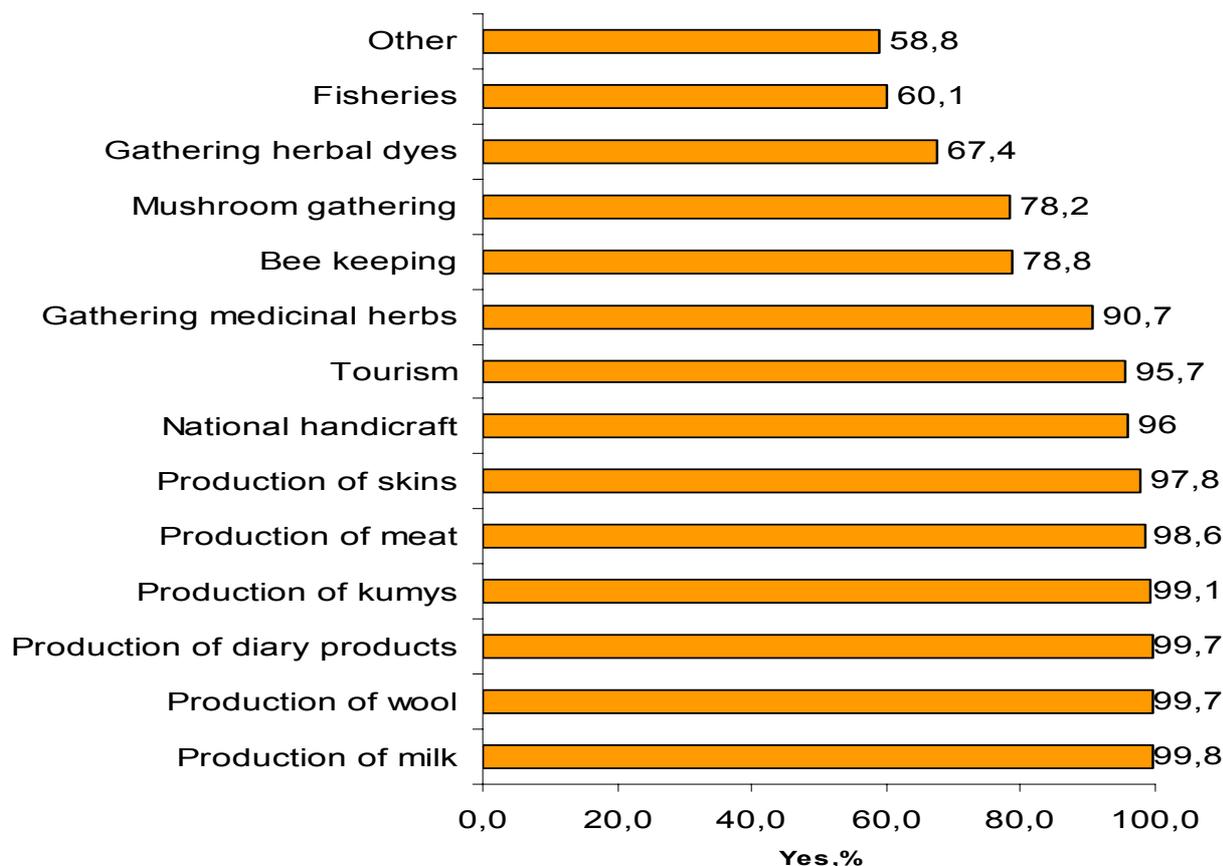
«First of all, with whom should I associate? Secondly, what for? I work a lot and that is why I am not poor. OK, let's say I joined the association. But I am sure there will be lazy bones among members. So that means I will need to work not only for myself but for them as well».

It was clear that poor people were more eager to join associations than rich residents. Overall, 48% of respondents said that they could unite their land plots and about the same number (45%) was not ready to do that. 7% of surveyed had not made their minds on this issue.

7. Prospects of Developing New Income-Generating Activities

Respondents were asked, «What profitable income-generating activities could be developed in Suusamyry valley?». A list of possible answers was given with a possibility of choosing 'other' in which case they were asked to elaborate.

Chart 7.1. Promising Income-Generating Sectors for Suusamyry Valley

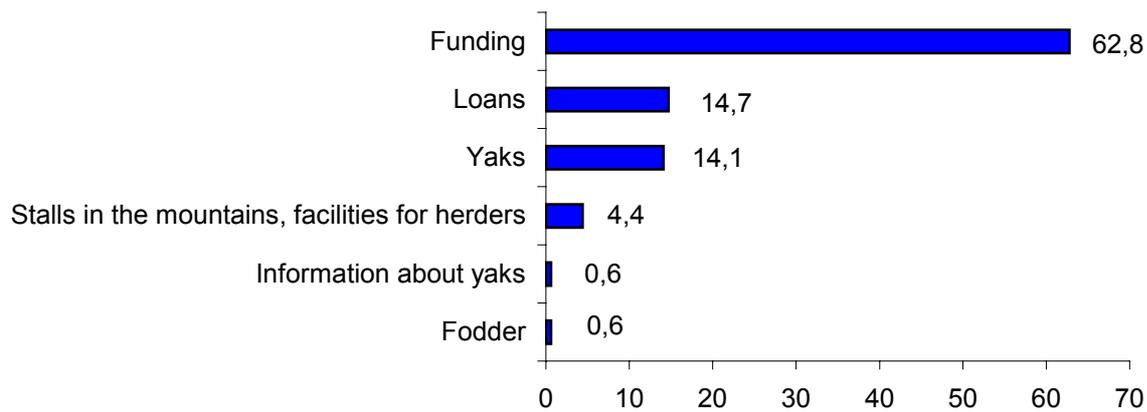


We can draw from the answers that production of milk and diary products, wool, *kumys*, skins, national handicraft and tourism are most promising activities. Less promising – bee keeping, gathering herbal dyes, fishery.

Four out five respondents said that yak breeding was both profitable and promising. And people are eager to start development of this sector.

“We would gladly develop yak breeding. Yaks are undemanding, feed themselves year round, do not need to be guarded like other livestock from predators, and they don’t need stalls. But where do I buy a yak?”

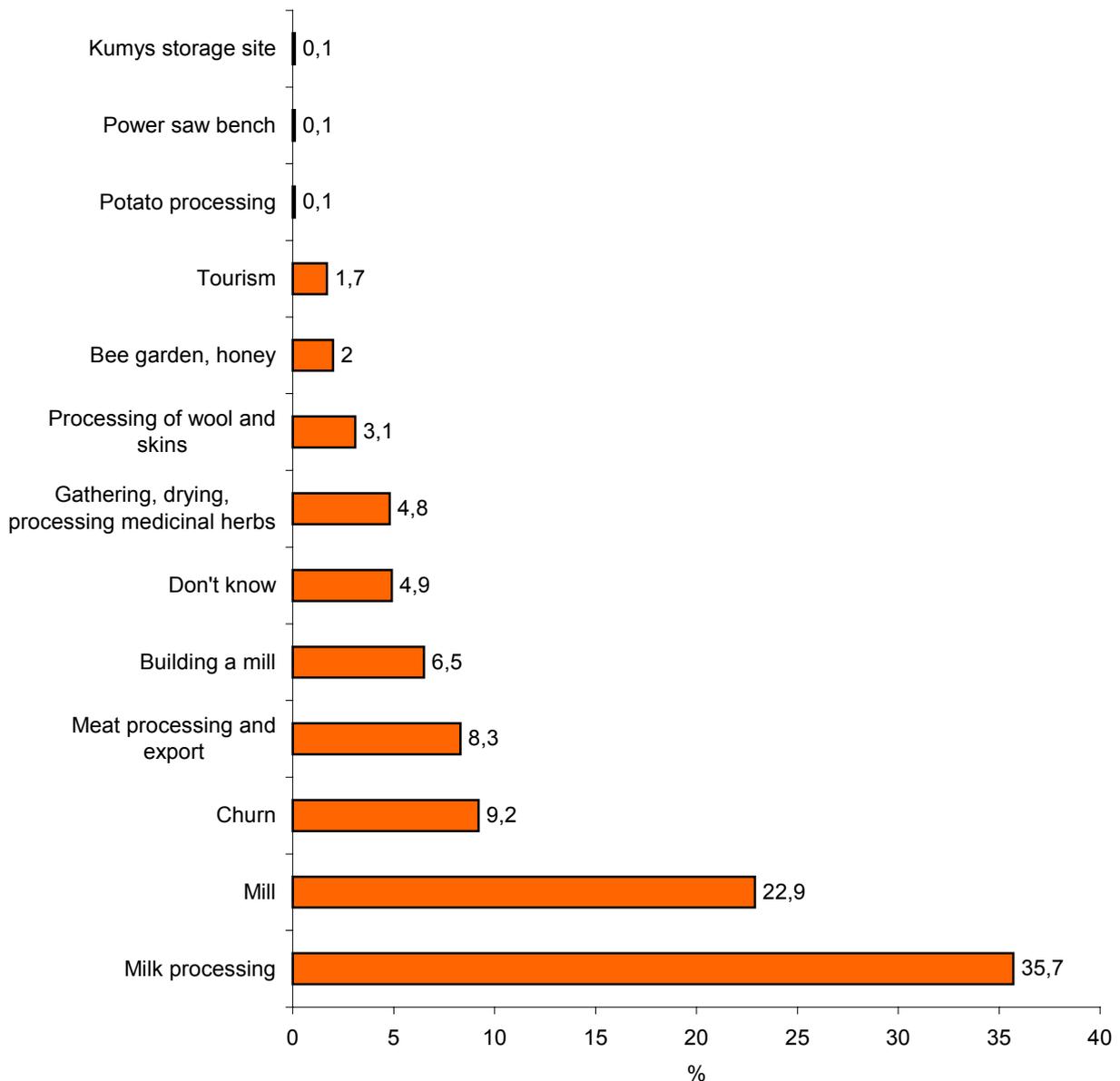
Chart 7.2. Types of Support needed for Development of Yak Breeding



Development of yak breeding requires financial /credit lines that could fund purchase of livestock and its rearing, and, most importantly, yaks themselves. An important role lies in educating and spreading information about care for these animals.

As regards camel breeding, people do not consider it to be a promising activity. While about half of respondents were ready to start yak breeding, only 16% of respondents would go into camel breeding (with full material and other kind of support).

Chart 7.3. How to Make Suusamyr Valley Flourish



In order for Suusamyr valley to flourish economically it is important to develop milk processing, build mini production units, churns, meat processing facilities, build storages for *kumys* and mare's milk, create a workshop for gathering and processing medicinal herbs, and other. But more importantly, it is crucial to overcome isolated position of Suusamyr producers.

8. Conclusions and Recommendations

Conclusions

- Hypothesis that Suusamyr valley pastures were being degraded was not confirmed,
- Yak breeding is considered promising for the valley,
- Camel breeding is not considered promising in the valley,
- Suusamyr valley has a good potential for development of meat production and export.

Recommendations

- Available financial resources - including foreign funds – should be directed not for rehabilitation of pastures, but for development of processing sectors and marketing of produce;
- Bring roadside traders into legal field with a focus on environmental sustainability of their activities (roadside pastures, flood lands, garbage collection, restrooms);
- Bring Bishkek- Osh road drivers into legal field with a focus on environmental sustainability (prohibit car oil discharges, leaving broken car bodies);
- For the purpose of implementing Government Resolution #360, review arrangements for control, distribution and supervision over pasture rents, collection and use of pasture rental fees and create mechanisms for enforcement of the Resolution with provision of funding (transportation costs);
- Create motivation for people to use distant pastures (taking into account time of the year);
- Create mechanisms for implementation of legislation concerning unification of land plots into peasant farms, creation of associations (mechanisms for property protection, conditions for exiting association, fair distribution of revenue taking into account contributions);
- Develop Suusamyr valley export potential (sheep/goats, cattle, yaks, diary products, mare's milk and kumys) ways of rearing high-yield cattle breeds;
- Create conditions for livestock farming (support services, marketing, lending);
- Develop community-based pasture management to enhance control and responsibility over use of Suusamyr valley pastures;
- Introduce scientifically justified regime for use of Suusamyr valley pastures;
- Rehabilitate artesian wells to improve access to clean drinking water;
- Supply subjects of pasture use with containers and create special garbage dumps;
- For the purpose of preserving flood land forests, consider providing people with cheaper coal and create motivation for people to plant special forests to be used in future for heating purposes;
- Create pasture users associations;
- Elaborate mechanism and create legal conditions for long-term pasture leasing, provision possibility of building houses for shepherds on the territory of distant pastures to improve living conditions;
- For the purpose of developing yak breeding, create breeding farms and credit lines to support purchase and rearing of yaks;
- For the purpose of developing and improving Suusamyr valley economy, build mini milk processing units, churn, sausage unit, build storage facilities for mare's milk, build a factory /workshop for collection and processing of medicinal herbs and other.
- Create a system that will help to overcome isolated position of Suusamyr producers (purchase companies, transportation of products, etc.). Some of the ways include establishing contacts with the Business Associations of Kyrgyzstan, Kazakhstan, Uzbekistan and other countries, as well as conducting trade fares of local products.