

**WWF MONGOLIA PROGRAMME OFFICE**

**CURRENT SITUATIONS OF LAND USE AND SOCIO-ECONOMIC STATUS  
OF HERDERS OF BUKHMURUN AND SAGIL SOUMS OF UVS AIMAG**

**Draft translation**

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### FOREWORD

WWF Mongolia is implementing a project “Community based hunting management” within 450 km<sup>2</sup> area in Shar Khargai, Tsagaan Gol, North and South Khuremt, and Mandakh areas of Bukhmunun and Sagil Souns of Uvs Aimag. In practice, it is impossible to deal with the sustainable use of natural resources at regional level without participation and input of local communities in the region.

Thus, it needs to collect baseline data on socio-economic status of households, environmental partnerships, established and to be established, in Bukhmunun and Sagil Souns and to find solutions on improvement of their livelihood conditions of local communities and partnership members. With these objectives, this survey was conducted.

### RESEARCH TEAM consists of the following members:

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### ACKNOWLEDGEMENTS

We would like to express our deepest appreciation to the local government officials and individuals including N. Enkhtaivan, Khar Altat Bag Governor of Bukhmunun Soum, Jargalsuren, the Bag member, R. Mandakh, Argali sheep conservation manager, Tserenjav, Uureg Nuur Bag Governor of Sagil Soum, Ouyntuya and Oyungerel, herders and other herders, who took part in the survey, for their dedicated time and kind assistance/input to this baseline survey completion.

### SURVEY METHODOLOGY:

The survey was carried out with the methodologies that were developed and used for long term by some researchers of Nomadic Herders’ Research Center at the Institute of Geography under the Mongolian Academy of Sciences (MAS).

The survey was particularly targeted and conducted at grass root level, the smallest administrative and territorial unit “Bag”, and used Participatory Rapid Appraisal (PRA) method that mostly included individual and group discussions for field survey tasks.

Meetings and discussions with local herders were done on the ways to targeted field sites, but special meetings and discussions with some herder families and local residents were organized in order to collect more detailed data and involve different

social stratum representatives with different livelihood levels. During the meetings and discussions with local communities we used questionnaires for data collection.

For collection of data on land use we used mapping, inventory, and discussion methods among targeted groups including Soum/Bag communities and herder families. We also collected data on seasonal movements and locations of local herder families including names and coordination points of their seasonal settlement areas.

Data of socio-economic status of targeted Soum/Bag residents was got from the respective Soum and Bag Governor’s Offices.

In order to save time and collect comprehensive data for short period, we mobilized some local (Soum/Bag) residents e.g. herders. The research team visited three Bag areas of two Soums for respective data collection and meetings/discussions with targeted groups. In addition to data collection, we organized meetings and discussions with established herder community members.

## **I. CURRENT SOCIO-ECONOMIC STATUS OF TARGETED SOUM HERDERS**

### **I.1. POPULATION:**

#### **I.1.1. KHADAAN BAG OF BUKHMURUN SOUM**

According to the official human population census in February 2008, totally 762 people of 181 households were registered in the Khadaan Bag of Bukhmurun Soum, a project site (Table 1).

Table 1

#### **Bags’ Population: Households (as of February 2008)**

<b>Soums</b>	<b>Bags</b>	<b>Households</b>	<b>Population</b>
Bukhmurun	Khadaan Us	181	762
	Gurvan Jigertei	168	725
Sagil	Uureg Nuur	110	462

Source of information: statistics from Bag Governor’s Offices

According to the age classification of household heads: there are 81 individuals of 16-34 years old, 75 individuals of 35-55 years old, and 25 individuals of more than 55 years old (Table 2)

Table 2

#### **Ages of herder household heads**

<b>Bag names</b>	<b>16-34 years old</b>	<b>35-55 years old</b>	<b>more than 55 years old</b>	<b>Total</b>
Khadaan Us	81	75	25	181
Gurvan Jiregtei	77	72	19	168
Uureg Nuur	45	45	20	110

Source of information: “A” inventory list of Bag Governor

According to the classification of household heads in their educational background: there are no any individuals with high education, 4 individuals with special secondary education, 23 persons with complete secondary education, 91 persons with incomplete secondary education 49 persons with primary education, and 14 individuals with no any education (Table 3).

Table 3

**Educational Background of Household Heads**

Educational background	Bukhmurun Soum		Sagil Soum	Number	Per cent
	Khadaan Us Bag	Gurvan Jiregtei Bag	Uureg Nuur Bag		
High education	0	0	0	0	0
Special secondary	4	4	9	17	3.7 %
Complete secondary	23	22	5	50	11.0 %
Incomplete secondary	91	91	41	223	48.6 %

Source of information: meetings & discussions with Bag Governors & herders

Regarding duration of livestock herding business employment, 102 individuals of total herders in Khadaan Bag had already engaged in the business for 20 years before 1990, 37 individuals for over 10 years by 1990-2000, and 42 individuals have been engaging in the herding business for almost 8 years since 2000. From these data, the 56.45 per cent of total herders in the targeted area have been engaging in livestock herding business since 1990 (Table 4).

Table 4

**Data on herders engaging in livestock herding business since 1990**

Duration Bags:	Bukhmurun		Sagil	Total
	Khadaan Us	Gurvan Jigertei	Uureg Nuur	
Since 1990	102	95	54	251
1990-2000	37	28	25	90
Since 2000	42	45	31	118

Source of information: “A” inventory list of Bag Governor

According to the age classification among the herders, majority or 50.6 per cent is of 16 – 34 years old. The survey data shows, most of herders of targeted areas had become herders since their childhood and before the privatization process in the country.

**I.1.2. GURVAN JIREGTEI BAG OF BUKHMURUN SOUM**

According to the official human population census in February 2008, totally 725 people of 168 households were registered in the Jiregtei Bag of Bukhmurun Soum, a project site (Table 1).

According to the age classification among the family heads: there are 77 individuals of 16-34 years old, 72 individuals of 35-55 years old, and 19 individuals of more than 55 years old (Table 2).

According to the classification of household heads in their educational background: there are no any individuals with high education and secondary education, 4 persons with special secondary education, 22 persons with complete secondary education, 91 persons with incomplete secondary education, 42 persons with primary education, and 9 individuals with no any education (Table 3).

Regarding duration of livestock herding business employment, 95 individuals of total surveyed herders in Gurvan Jiregtei Bag had already engaged for 20 years before 1990, the 28 individuals for over 10 years by 1990-2000, and 45 individuals have been engaging in livestock herding business for almost 8 years since 2000. From these data, the 56.45 per cent of total herders in the targeted area have been engaging in livestock herding business since 1990 (Table 4).

According to the age classification among the herders, majority or 50.6 per cent is of 16 – 34 years old. The overall survey findings show that most of herders of targeted areas had become herders since their childhood and before the privatization process in the country.

### **I.1.3. UUREG NUUR BAG OF SAGIL SOUM**

According to the official human population census in February 2008, totally 462 people of 110 households were registered in the Jiregtei Bag of Bukhmurun Soum, a project site (Table 1).

According to the classification of household heads in their ages: there are 45 individuals of 16-34 years old, 45 individuals of 35-55 years old, and 20 individuals of more than 55 years old (Table 2).

According to the classification of household heads in their educational background: there are no any individuals with high education and secondary education, 9 persons with special secondary education, 5 persons with complete secondary education, 41 persons with incomplete secondary education, 52 persons with primary education, and 3 individuals with no any education (Table 3).

Regarding duration of livestock herding business employment, 54 individuals of total herders in Uureg Nuur Bag of Sagil Soum had engaged for 20 years before 1990, 25 individuals for over 10 years by 1990-2000, and 31 individuals have been engaging in livestock herding for almost 8 years since 2000. According to the age classification among the herders, majority or 50.6 per cent is of 16 – 34 years old and most of herders of targeted areas had become herders since their childhood and before the privatization process in the country. 56.45 per cent of total herders in the targeted area have been engaging in livestock herding business since 1990 (Table 4).

The Sagil Soum has 585-612 households and 2245-2336 people were officially registered in 2004-2007 (Table 5).

There are totally 1945 people of 459 households residing the three Bags, where the project is implemented. According to the statistics on population of the targeted Bags,

no substantial changes were made to the population amounts within last four years. While 72.5 per cent of total households in the targeted area live in rural areas engaging in livestock herding, the rest of 27.5 percent reside the Soum centers. Most of herder household heads of the targeted areas, Khadaan Us, Gurvan Jiregtei and Uureg Nuur Bags, have incomplete secondary education (48.09 %) and primary education (30.68 %).

In comparing the population statistics in 2008 to the mean statistics of last four years in Bukhmurun Soum of Uvs Aimag, the Soum population was reduced by 756 individuals of 217 households. It shows there were some migrations or movements in population settlement (Table 5).

### Numbers of households and individuals of the Soums (last 4 years)

Soums	2004		2005		2006		2007	
	Persons	Households	Persons	Households	Persons	Households	Persons	Households
Bukhmurun	2417	576	2217	571	2191	562	2150	558
Sagil	2330	611	2245	585	2334	612	2336	607

Source of information: Statistics Office in Uvs Aimag

## I.2. LIVESTOCK

### I.2.1. KHADAAN US, BUKHMURUN SOUM

We analyzed survey data on livestock recorded from 2004 to 2008 at Bag level. In Khadaan Us Bag, there were 19,594- 34,290 heads of livestock recorded and increased by 14,696 heads between 2004 and 2008 (Table 6). The Bag has totally 47,035.5 heads of livestock in sheep unit (Table 7). According to the cumulative data, the heads of livestock were increased in recent years the same as in other parts of the country.

Table 6

### Heads of Livestock (at Bag level) (2004-2008)

Years	Bukhmurun Soum		Sagil Soum
	Khadaan Us Bag	Gurvan Jiregtei Bag	Uureg Nuur Bag
2004	19594	31360	27694
2005	19887	24116	27853
2006	28889	32187	35085
2007	34290	36377	36813

Source of information: "A" inventory list of Bag Governor

Table 7

### Heads of Livestock in Sheep Unit (2007)

	Soums	Bags	Total number	In sheep unit
1.	Bukhmurun	Khadaan Us	34,290	47,035.5
		Gurvan Jiregtei	36,377	43,489.5

2.	Sagil	Uureg Nuur	34,290	45,550.1
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Source of information: "A" inventory list of Bag Governor

According to the statistics on livestock of the targeted areas, the livestock herd structure is dominant by goat (48.8 %) (Table 8).

Table 8

### Livestock Herd Structure (2007)

	Soums	Bags	Total	Camel	horse	cattle	sheep	goat
1	Bukhnmurun	Khadaan Us	32,267	47	1,191	1,812	12,202	17,105
2		Gurvan Jiregtei	36,377	2	468	1,281	16,831	17,423
3	Sagil	Uureg Nuur	36,813	34	507	1,428	19,035	15,809

Source of information: "A" inventory list of Bag Governor

Ratios of herd structure vary in each Bag. For instance, according to the data on livestock for last four years, the majority or 41.20-54.03 per cent of total livestock herds were goat, while the lowest or 0.09-0.1 per cent were camel throughout three Bags.

In Kadaan Us Bag, the numbers of horse and cattle were relatively stable in 2004-2007, the number of sheep was increased by 4,160-5,280 heads within last two years in comparing to that in previous two years, and numbers of goat were increased by the highest number (by 4,363-6,656 heads in 2007 in comparing to that in 2004 and 2005) among other kinds of livestock during last four years (Table 9).

Table 9

### Livestock Herds in Khadaan Us Bag of Bukhnmurun Soum (2004-2007)

Years	Camel	Horse	Cattle	Sheep	Goat
2004	47	1,013	1,528	6,922	10,588
2005	48	1,035	1,521	6,311	10,695
2006	56	1,161	1,604	11,082	14,951
2007	47	1,191	1,812	12,202	17,244

Source of information: "A" inventory list of Bag Governor

### 1.2.2 GURVAN JIREGTEI BAG OF BUKHMURUN SOUM

In 2004-2008, the number of livestock in Gurvan Jiregtei was 31,360-36,377 increased by 5,017 heads of livestock (Table 6). However, the heads of livestock in 2005 were reduced by 7,244 heads in comparing to that in 2004. ). The Bag has totally 43,489.7 heads of livestock in sheep unit (Table 7). The Bag has higher number of livestock in comparing to that of Khadaan Us Bag in these years, but it has almost same heads of livestock in sheep unit.

According to the livestock herd structure classification: the numbers of horse and cattle were relatively stable in 2004-2007, the number of sheep was increased by 4,828-5,640 heads in last two years in comparing to that in 2005, and numbers of goat were increased by the highest number (by 2,744-5,680 heads in 2007) among other kinds of livestock during last four years (Table 10).

Table 10

**Livestock Herd Structure in Gurvan Jiregtei Bag of Bukhmurun Soum (2004-2007)**

Years	Camel	Horse	Cattle	Sheep	Goat
2004	6	442	1,043	15,210	14,618
2005	6	384	861	11,190	11,735
2006	4	449	1,097	16,016	14,679
2007	2	468	1,282	16,831	17,423

Source of information: "A" inventory list of Bag Governor

**1.2.3. UUREG NUUR BAG OF SAGIL SOUM**

In 2004-2008, the number of livestock in Uureg Nuur Bag of Sagil Soum was 31,360-36,377 increased by 5,017 heads of livestock (Table 6). The Bag has 45,550.1 heads of livestock in sheep unit (Table 7).

According to the livestock herd structure classification: the number of camel was reduced by 43-49 heads, the number of horse increased by 87-106 heads, and number of cattle increased by 217 heads. However, the number of sheep was increased by 2,678 heads in 2006 in comparing to that in other years and number of goat was relatively stable in the first 2 years, but increased by 3,270-4,337 heads in last 2 years (Table 11).

Table 11

**Livestock Herd Structure in Uureg Nuur Bag of Sagil Soum (2004-2007)**

Years	Camel	Horse	Cattle	Sheep	Goat
2004	83	420	1,211	14,508	11,472
2005	83	470	1,072	14,799	11,476
2006	40	526	1,290	18,487	14,742
2007	34	507	1,428	15,809	15,809

According to statistics on livestock (end of 2007) in targeted two Soums, there were 87.814 heads of livestock recorded in Bukhmurun Soum and 150.239 heads in Sagil Soum. The number of livestock in Bukhmurun Soum was increased by 9,339-21,260 heads in 2007 in comparing to data in previous years. However, the number of livestock in Sagil Soum was increased by 5,623-35,823 heads in 2006 and 2007 (Table 12).

Table 12

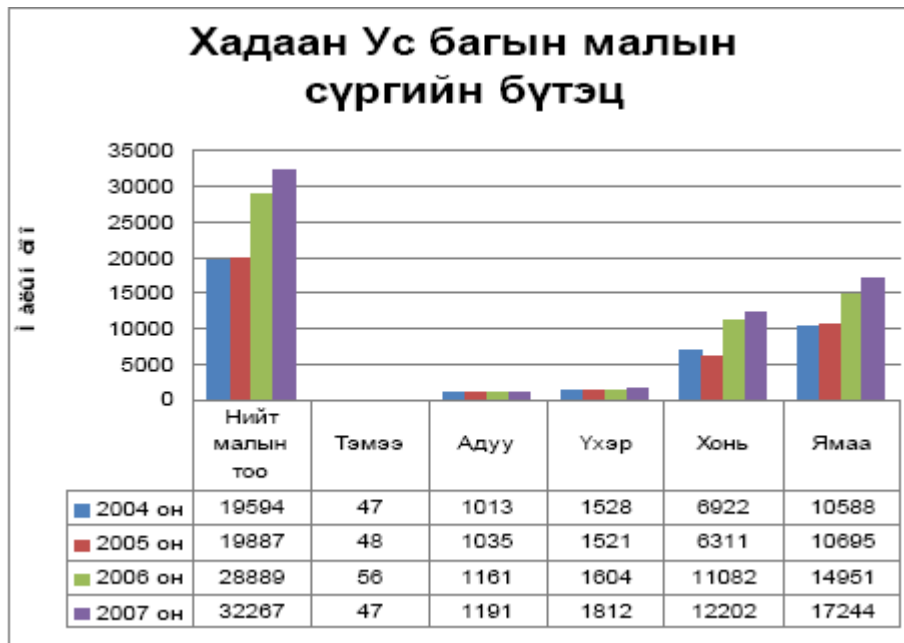
### Heads of Livestock in Soums (2004-2008)

Soums/Years	2004	2005	2006	2007
Bukhmurun	78,475	66,554	80,196	87,814
Sagil	114,416	119,315	144,616	150,239

Source of information: Statistics Office in Uvs Aimag (2008)

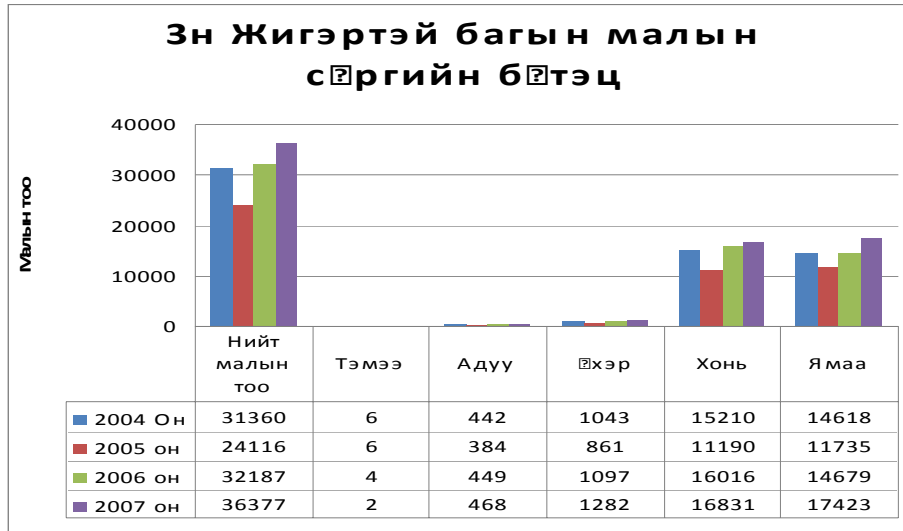
Ratios of herd structure vary in each Bag. For instance, according to the data on livestock for last four years, the majority or 41.20-54.03 per cent of total livestock herds were goat, while the lowest or 0.09-0.1 per cent were camel throughout three Bags (Graphs 1,2,& 3).

Graph 1



Source of information: "A" inventory list of Bag Governor

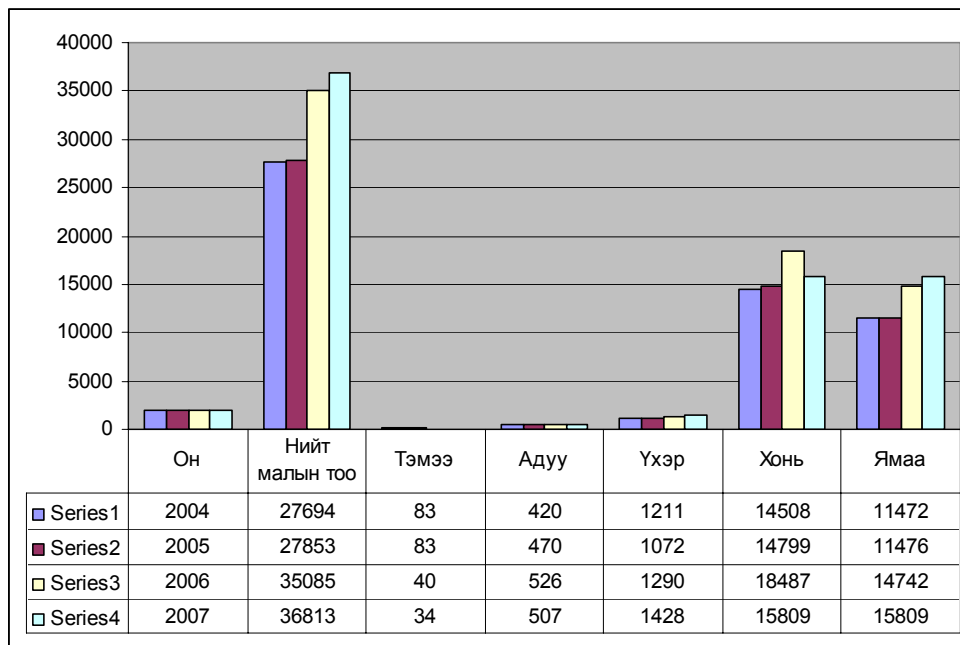
Graph 2



Source of information: “A” inventory list of Bag Governor

Graph 3

### Herd Structure of Uurer Nuur Bag of Sagil Soum



Source of information: “A” inventory list of Bag Governor

According to the recent year statistics, the number or per cent of goat is much higher in the herd structure. Additionally, the numbers and herd structure of livestock raised by herder families are different depending on livelihood conditions of herders’.

For instance, for the herder families with medium and poor living/livelihood conditions, main income source is cashmere and they prefer to increase heads of goat as much as possible.

### **1.3. INCOME AND EXPENDITURE OF HERDERS**

#### **1.3.1. KHADAAN US BAG OF BUKHMURUN SOUM**

We divided herders' incomes into 2 main parts: incomes from livestock husbandry products and incomes from non-livestock husbandry products. Most of incomes earned by herders are from livestock husbandry products. For instance, 81.9 % of total herder households in the Bag and 82.2 % of herder household in Gurvan Jiregtei Bag earn incomes only from livestock products. The rest 18.1 % can earn incomes from livestock and non-livestock products as they assess their income generation sources (Table 13).

Table 13

#### **Incomes and Expenditure of Herders**

Bags	Numbers of herder families with incomes from livestock products		Numbers of herder families with incomes from livestock & non-livestock products	
Khadaan Us	117	81.9 %	39	18.1 %
Gurvan Jiregtei	162	82.2 %	35	17.8 %
Uureg Nuur	109	72.8 %	36	24.8 %

Source of information: meetings & discussions with Bag Governors & herders

#### **1.3.2. GURVAN JIREGTEI BAG OF BUKMURUN SOUM**

Sources of income generation are divided into 2 main parts: incomes from livestock husbandry products and incomes from non-livestock husbandry products. Most of incomes earned by herders are from livestock husbandry products. For instance, 82.2 % of total herder households in the Bag are able to earn incomes only from livestock products and the rest 18.1 % from livestock and non-livestock products as they assess their income generation sources (Table 13).

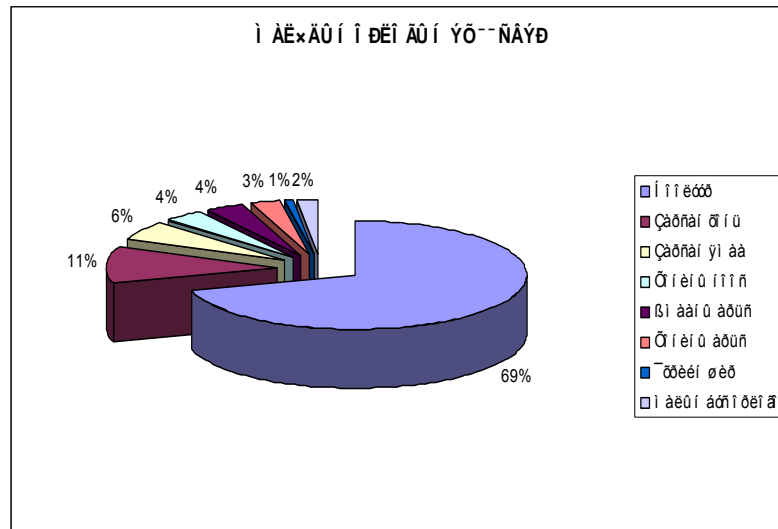
#### **1.3.3. UUREG NUUR BAG OF SAGIL SOUM**

Sources of incomes are divided into main 2 parts: incomes from livestock husbandry products and incomes from non-livestock husbandry products. Most of incomes earned by herders are from livestock husbandry products. For instance, 72.8 %

of total herder households in the Bag are able to earn incomes only from livestock products and the rest 24.8 % from livestock and non-livestock products as they assess their income generation sources (Table 13).

Amounts of incomes earned from livestock husbandry also vary depending on the herd structure. Majority of herder families earn most of their incomes from cashmere and livestock trading. The herder families that raise big cattle are able to earn small part of their incomes from trades of skins, hides, meat and milk (Graph 4).

Graph 4



Source of information: meetings & discussions with Bag Governors & herders

During meetings and discussions with herders, we found that a main source of most herders was cashmere. According to their discussions, up to 70 per cent of some household incomes are earned from cashmere.

Survey findings show that herders have different kinds of incomes depending on their living standard. For example, a main source of incomes for poor herders is cashmere, while livestock trade is main source of incomes for rich or wealthy herders. According to the survey findings, only 7.12 per cent of total herders of targeted areas are rich or wealthy herders.

Non-livestock income generating sources include pensions, welfare allowance, salaries, wildlife hunting, artisanal mining, and hand crafts. Among these sources of incomes, one of the most beneficial kinds of income generation is herding or taking care of others' livestock according to talks of some herders. This source of income provides the herders with all year around incomes without discrimination of herders' ages and gender.

The herders taking care of others' livestock are usually paid with cash (e.g. MNT 1500 per a male sheep and goat, in a month) or in-kind as well as they are given with the right to own cashmere and wool of livestock they herd.



## 1.4. INCOMES FROM NON-LIVESTOCK PRODUCTS

### 1.4.1. KHADAAN US BAG OF BUKHMURUN SOUM

Totally 148 or 81.8 per cent of total herder families in Khadaan Us Bag earn incomes from animal husbandry production and 33 or 18.2 per cent of earn incomes from non-livestock products. Moreover, 40 households or 22.10 per cent of total households do hunt wildlife in terms of their interests and benefits according to our survey findings (Table 14).

Table 14

#### Number of households that do hunting in terms of their interests and benefits

Soums	Bags	Number of households	Percentage
Bukhmurun	Khadaan Us	40	22.1 %
	Gurvan Jiregtei	48	28.6 %
Sagil	Uureg Nuur	44	40.0 %

Source of information: meetings & discussions with Bag Governors & communities

According to the living standards of households that do hunting: there are 2 households with good living condition, 15 households with moderate living condition, 17 households with poor living conditions, and 7 households with very poor living condition (Table 15). Households in Khadaan Us Bag are divided into 4 groups in terms of their living standards/conditions. According to their findings, 8.84 % or 16 families of total households are wealthy, 55.80 % or 101 families are moderate/ middle, 29.83 % or 54 families are poor and 5.52 % or 10 families are very poor.

Table 15

#### Differences among the households that do hunting

	Wealthy	Moderate /middle	Poor	Very poor
Khadaan Us	2	15	17	7
Gurvan Jiregtei	5	36	8	4
Uureg Nuur	0	27	13	1

Source of information: meetings & discussions with Bag Governors & herders

According to the findings above, the 80 families or 44.2 % of total households do hunting in terms of their interests and benefits.

Although wildlife hunting quotas/limits are issued in the region and hunting of marmot is legally prohibited throughout the country, there are not few households illegally hunting wildlife in order to earn incomes. According to our survey findings, most of people do illegal hunting for their recreations or interests particularly for eating tasty marmot meat and selling their skins at market prices.

#### **1.4.2. GURVAN JIREGTEI BAG OF BUKHMURUN SOUM**

Totally 138 families or 82.8 per cent of total herder households in Gurvan Jiregtei Bag earn incomes from animal husbandry and 30 or 17.9 per cent earn incomes from non-livestock products. Moreover, 48 families or 28.60 per cent of total households do hunt wildlife for their interests and benefits (Table 14).

According to the living standards of households that do hunting: there are 5 households with good living condition, 36 households with moderate living condition, 8 households with poor living conditions, and 4 households with very poor living condition (Table 15). Thus, there are 101 families going hunting and 60.1. % of total households at the Bag engages in wildlife hunting.

Households at Gurvan Jiregtei Bag are also divided into 4 groups in terms of their living standards/conditions. According to their findings, 20.8 % or 35 families of total households are wealthy, 57.1 % or 96 families are moderate/ middle, 17.3 % or 29 families are poor and 4.8 % or 8 families are very poor. In comparing to respective data in Khadaan Us Bag, the number of wealthy families is 2 times more, while the numbers of poor and very poor families are less by 25-2. However, the number of households that do hunting is higher by 20 %.

#### **1.4.3. UUREG NUUR BAG OF SAGIL SOUM**

Totally 80 families or 72.2 per cent of total herder households in Uureg Nuur Bag of Sagil Soum earn incomes from animal husbandry and 30 or 27.3 per cent earn incomes from non-livestock products. Moreover, 44 families or 40.0 per cent of total households do hunt wildlife for their interests and benefits (Table 14).

According to the living standards of households that do hunting: there are 27 households with moderate living condition, 13 households with poor living conditions, and 1 household with very poor living condition (Table 15). Thus, there are 85 families going hunting for their interests and benefits and 77.3. % of total households at the Bag engages in wildlife hunting.

Households at Uureg Nuur Bag of Sagil Soum are also divided into 4 groups in terms of their living standards/conditions. According to their findings, 0.90 % or 1 family is wealthy, 69.09 % or 76 families are moderate/ middle, 29.09 % or 32 families are poor and 0.90 % or 1 family is very poor. In comparing to respective data in Khadaan Us and Gurvan Jiregtei, the Bag has fewer wealthy and very poor families, but majority (69.09 % of total households) is the families with moderate living conditions.

### **1.5 Overall Herders' livelihood**

#### **1.5.1. KHADAAN US BAG OF BUKHMURUN SOUM**

According to the comparison findings of Bag Governor's participatory assessments of livelihood/living conditions of herder families in 4 categories, the livelihood of herders from two Bags of Bukhmurun Soum and another two Soums of Uvs Aimag are quite low and different from others. The assessment shows that 8.7 % of

total surveyed herders from Khadaan Us Bag are wealthy, 55.8 % is middle/moderate, 30.0 % is poor and 5.5 % is very poor (Table 16).

Table 16

**Livelihood of Herders (Assessment by Bag Governor)**

Soums	Bags	Wealthy		Middle/moderate		Poor		Very poor	
		Number of households	%	Number of households	%	Number of households	%	Number of households	%
Bukhmurun	Khadaan Us	16	87	101	55.8				
	Gurvan Jiregtei								
Sagil	Uureg Nuur								

Source of information: report by Bag Governor

However, according to overall assessment on their livelihood by herders, 5.5 % of surveyed herders are wealthy, 66.9 % middle/moderate, 26.5 % poor, and 1.1 % very poor (Table 17).

Table 17

**Livelihood of Herders (overall assessment by herders)**

Soums	Bags	Wealthy		Moderate		Poor		Very Poor	
		#	%	#	%	#	%	#	%
Bukhmurun	Khadaan Us	16							
	Gurvan Jiregtei								
Sagil	Uureg Nuur								

Source of information: Discussions with herders

**1.5.2. GURVAN JIREGTEI BAG OF BUKHMURUN SOUM**

20.8 % of total surveyed herders from Gurvan Jiregtei Bag of Bukhmurun Soum are wealthy, 57.1 % middle/moderate, 17.3 % poor and 4.8 % very poor (Table 16).

However, according to the participatory assessments on Bags' herders family livelihood made by herders, 11.3 % of surveyed herders in Gurvan Jiregtei Bag are wealthy, 63.1 % middle/ moderate, 25.0 % poor, and 0.6 % very poor. Number of wealthy herder families in Khadaan Us Bag is higher (by 9) than that in othe Bags (Table 17).

Herders of two Soums were given a question “what is the most reasonable number of livestock for a herder family? The herders provide different answers to the question. For instance, herders of Bukhmurun Soum replied “3-5 camels, 8-15 horses, 100-200 sheep, and 70-100 goats”. Herder of Sagil Soum replied: “4-6 camels, 20-30 horses, 10-20 cattle, 200-400 sheep, and 100-200 goats”. According to the replies given by herders of two Soums, the most reasonable number of livestock per a herder family is 500-600 heads of livestock as herders of Sagil Soum regard and it is more than 200 heads of livestock as herders of Bukhmurun Soum regard. In other words, these numbers of livestock will provide them with an opportunity to run basic livestock husbandry production (Tables 18 & 19).

Table 18

**Overall Assessment given by herders of Bukhmurun Soum**

Bukhmurun Soum			
Wealthy family	Moderate family	Poor family	Very Poor family
Have: - more than 500 heads of livestock; - fixed assets; - long term herding experiences;	Have: -200-400 heads of livestock for a family with 5-6 members; These number of livestock will supply only the basic needs of the family;	Have: - 60-150 heads of livestock; - mostly big families; - no fixed assets; - No any additional sources of incomes, they meet their daily basic needs from these few heads of livestock; they have a risk to be impoverished; Only one additional source for this type of family is use of natural resources;	Have: - 0-50 heads of livestock; - big families; - herd others' livestock; - they hardly supply their daily basic needs; - usually impoverished families; - usually assist other herders in herding their livestock and other household work; -no any livestock, no access to pension & welfare services; only live on children's money;

Sources of information: meetings and discussions with herders

### 1.5.3. UUREG NUUR BAG OF SAGIL SOUM

According to the survey findings, 0.9 % of total surveyed herders in Uureg Nuur Bag of Sagil Soum are wealthy, 69.1 % middle/moderate, 29.1 % poor and 0.9 % very poor (Table 16).

However, according to the comparative assessments on Bags' herder family livelihood that made by herders, 4.5 % of surveyed herders in Uureg Nuur Bag are wealthy, 29.1 % middle/moderate, 40.9 % poor, and 25.5 % very poor families. Number of wealthy herder families in Uureg Nuur Bag is much less than those in other Bags and number of very poor families are much higher, by 24 % (Table 17).

Table 19

**Overall Assessment given by herders of Sagil Soum**

Sagil Soum			
Wealthy family	Moderate family	Poor family	Very Poor family
Have: - 800-1000 heads of livestock; - fixed assets; - considerable herding experiences; - give some heads of livestock to local people, mostly poor people; - have paid herders;	Have: -500-800 heads; - own transport means;  In this type of family: if family members work hard, their living conditions are likely to "go up" fast; If not, it is risky to go down easily;	Have: - 200-400 heads of livestock; - mostly big families; - It is hard for them to bring their living to improve, but it is likely to "go down".	Have: - 30-150; about 400 heads of livestock; - big families; - herd others' livestock; - usually impoverished families;

Sources of information: meetings and discussions with herders

In practice, there is a difference between the statement e.g. it is reasonable, if the herder families with 3-4 children have over 200 heads of livestock and the participatory assessment findings on herder livelihood. For instance, a half of surveyed herders of three Bags have the reasonable number of livestock, but it is different according to the participatory assessment results.

## II. LAND USE PRACTICE IN TARGETED AREAS

### II.1. PASTURELAND USE

#### II.1.1. KHADAAN US AND GURVAN JIREGTEI BAGS OF BUKHMURUN SOUM

We used mapping for identification of seasonal settlement areas of the herders by using a map of 1:100,000 scale and analyzed findings on pastureland use. At present, the use and possession of pastureland are basically managed based on traditional and

natural (e.g. vegetation, sun, wind and saline) factors, however seasonal movements of herders are much dependable on transport means, water resources, availability of wells, markets, and social services.

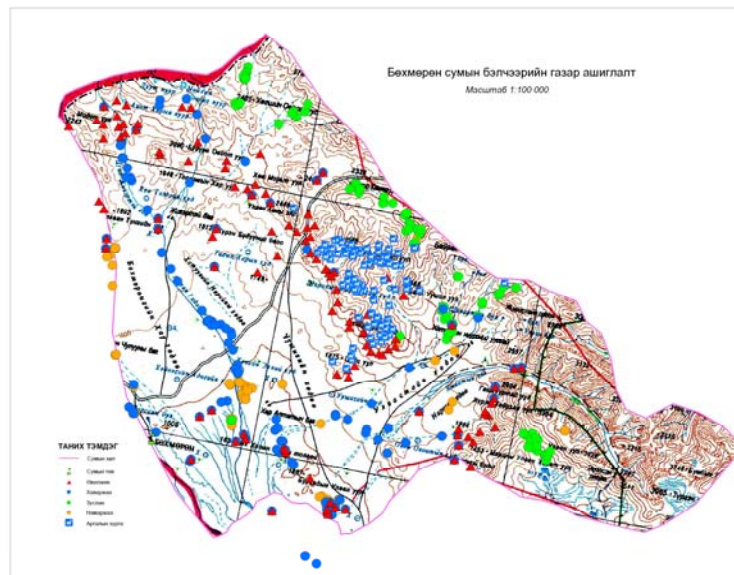
Due to lack of transport means and non-affordable costs, the herder families have restricted their seasonal movements. Basically, most of herder families move around 2 times a year because of staying at the same place during winters and springs and at the same place during summers and autumns.

For analysis of data on seasonal movements of herder families of targeted areas for pastureland use, we mapped pastureland areas that are used in 4 seasons. Due to increased number of livestock and herder families, the herders along with their livestock are likely to move to wildlife rangeland.

We also collected some data on overlapping of pastureland to Argali sheep ranges in Bukhmurin Soum and identified that overlapping was 34.7 % of pastureland area (Report 2004).

Figure 3

**Seasonal Pastureland Use in Bukhmurin Soum of Uvs Aimag**  
(Map of 1:100,000 scale)



### II.1.3. UUREG NUUR BAG OF SAGIL SOUM

There are 313 herder families residing 208 winter settlements and totally 187,741 heads of livestock in sheep unit in Sagil Soum. Most of winter pastureland of livestock lies within Argali sheep habitat so that overlapping of pastureland is 67.41 % (Report 2004).

- About 15 herder families from the neighboring Soum (Turgen) spend their winters and use pastureland in the territory of Uureg Nuur Bag of Sagil Soum.



There are 6 haymaking fields, totally 18.2 ha that are used by 16 herder families in Khadaan Us Bag. In these haymaking fields, the herder families are able to annually prepare livestock fodder (Table 20).

Table 20

**Haymaking fields of herder families in Khadaan Us Bag of Bukhmurun Soum (in ha)**

	Bag	Haymaking fields	# of families	Area (ha)	Total area (ha)
1	Khadaan Us	Bukhmurnii gol	7	8.0 ha	18.2 ha
2		Shar Khargai	3	3.7 ha	
3		Tsagaan buraa	2	1 ha	
4		Khoz	2	1.5 ha	
5		Banzriin gesen	1	1 ha	
6		Heviin Ehen	1	3 ha	

Source of information: Bag Governor

**II.2.2. GURVAN JIREGTEI BAG OF BUKHMURUN SOUM**

We collected the following data on herders' haymaking fields and their locations and sizes in the Bag:

There are 15 haymaking fields, totally 58.7 ha that are used by 57 herder families in Khadaan Us Bag. In these haymaking fields, the herder families are able to annually prepare livestock fodder (Table 21).

Table 21

**Haymaking fields of herder families in Khadaan Us Bag of Bukhmurun Soum (in ha)**

	Bag	Haymaking fields	# of families	Area (ha)	Total area (ha)
1	Gurvan Jiregtei	Achit	17	15.4 ha	58.7 ha
2		Khusnii eh	6	7.2 ha	
3		Khoz	10	12.2 ha	
4		Zakh	4	3.7 ha	
5		Arzgar	2	3 ha	
6		Khar buraa	3	2.1 ha	
7		Heviin shireg	4	1.8 ha	
8		Suvraga	3	3.5 ha	

9		Zuun zakh	2	3 ha	
10		Shar aral	1	1.5 ha	
11		Nuzgen gol	1	1.5 ha	
12		Nariin us	1	1 ha	
13		Gurvan tatlaga	1	0.3 ha	
14		Yamaat	1	0.5 ha	
15		Dalan		2 ha	

Source of information: Bag Governor

### II.3.3. UUREG NUUR BAG OF SAGIL SOUM

We collected the following data on herders' haymaking fields and their locations and sizes in the Bag:

There are 31 haymaking fields, totally 22.45 ha that are used by 44 herder families in Uureg Nuur Bag. In these haymaking fields, the herder families are able to annually prepare livestock fodder (Table 22).

Table 22

#### Haymaking fields of herder families in Khadaan Us Bag of Bukhmunur Soum (in ha)

	Bag	Haymaking fields	# of families	Area (ha)	Total area (ha)
1	Uureg Nuur	Bugiin hev	2	1 ha	22.45 ha
2		Bagaa	1	0.7 ha	
3		Bituu buir	3	1.1 ha	
4		Neg yliastiin zuun tohio	3	2.5 ha	
5		Tsagaan tolgoi	1	0.3 ha	
6		Rashaantai tohoi	1	0.4 ha	
7		Zodoviin buir	1	0.3 ha	
8		Tsagaan goliin hev	2	1 ha	
9		Boomiin tsagaan toirog	1	0.3 ha	
10		Boomiin hoh had	1	0.5 ha	
11		Dovon	1	0.3 ha	
12		Har ylias	1	0.5 ha	

13		Bituu byir	2	0.7 ha	
14		Dood hoh har	1	0.3 ha	
15		Sarvhiin tsagaan tohoi		0.8 ha	
16		Tsagaan goliin nogoon harvaach	1	0.5 ha	
17		Ulaan huree	1	0.5 ha	
18		Huush buir	2	1 ha	
19		Nutsgen bulag	1	0.5 ha	
20		Tsagaan gol il	1	0.5 ha	
21		Hargant buir	1	0.8 ha	
22		Ih tsagaan tohoi	3	1.3 ha	
23		Mergenii nutsgen bylag	1	0.5 ha	
24		Tsagaan tohoi	1	0.4 ha	
25		Bulgiin ehen	2	1.3 ha	
26		Bugan	1	1 ha	
27		Tavan uias	2	0.6 ha	
28		Tohio buir	2	0.75 ha	
29		Hoh had	1	1 ha	
30		Dovonii hajuu buir	1	0.8 ha	
31		Boomiin adag	1	0.3 ha	

Source of information: Bag Governor

Though fewer, the herder families in Gurvan Jiregtei Bag harvest hays in bigger fields (56.7 ha), while herder families in Uureg Nuur Bag of Sagil Soum harvest hays in smaller sized fields (22.45 ha).

### III. SUMMARY OF BUKHMURUN AND SAGIL SOUM SOCIO-ECONOMIC STATUS DATA

Population of Bukhmurun and Sagil Soums (as of February 2008)

Table 23

Numbers of households	459
Population	1949

There are totally 1949 people of 459 households throughout three Bags of two Sums of Uvs Aimag.

Table 24

**Ages of herder household heads in Bukhmurun and Sagil Sums**

Age groups of Household heads	16-34 years old		35-55 years old		More than 55		Total	
	Number	%	Number	%	Number	%	Number	%
	203	44.2	192	41.8	14	192	459	100

203 or 44.2 % of total herder household heads surveyed are the males of 16-34 years old, 112 or 41.8 % are of 35-55 years old, 64 or 14.0 % are more than 55 years old. According these data, the ages of herder household heads are young and most of them are young people.

Table 25

**Education of herder household heads**

Education	Numbers of persons	Per cent (%)
Highly qualified	0	0
Special secondary education	17	3.7
Complete secondary education	50	11.0
Incomplete secondary education	223	48.6
Primary education	143	31.1
Uneducated	26	5.6
Total	459	100

Regarding the educational background of herder household heads, there are no highly educated individuals, but 223 or 48.6 % of the surveyed are individuals with incomplete secondary education, as a dominant group. 143 or 31.1 % of the surveyed are the individuals with primary education. According to these data, it is inevitably necessary to improve basic education of herders and to upgrade their educational levels.

Table 26

Numbers of individuals, who became herders since 1990

Duration of livestock herding	Numbers of individuals	Per cent (%)
Prior to 1990	251	54.7
1990-2000	90	19.6
Since 2000	118	25.7
	459	100

According to the data above, 54.7 per cent of 251 individuals had become herders before 1990, 25.7 % or 118 individuals have become herders since 2000, and 19.6 % or 90 individuals became herders in 1990-2000. There are numerous experienced herders in these Bags; however the numbers of young herders are likely to be increased lately. On other hand, the data collected show that herder's business is inherited among the local communities.

Table 27

**Population of the Soums (for last four years)**

Years	Population	Numbers of households
2004	4747	1187
2005	4462	1156
2006	4525	1174
2007	4486	1165

In last four years (2004-2007), the number of households and individuals in 2006-2007 were reduced by 13-22 households and 222-261 individuals in comparing to data in 2004. This was related to increasing population movement and settlements.

Table 28

**Numbers of Livestock (2004-2008)**

Years	Total heads of livestock	In sheep unit
2004	192,891	
2005	185,869	
2006	224,812	
2007	238,053	136,075.3

According to the data in years, the number of livestock was increased by 45,162-52,184 heads in 2006-2007. Due to limited grazing areas or pastureland in alpine or high mountainous areas, lately the livestock density and numbers have been increased

and consequently vegetation covers are likely to be affected badly to various degrees of degradation.

Table 29

**Herd Structure (2007)**

Herd structure	Heads of livestock	Per cent
CAMEL	83	0.3
HORSE	2166	2.1
CATTLE	4521	4.3
SHEEP	48068	45.6
GOAT	50337	47.76

Source of information: “A” inventory list of Bag Governor

According to statistics on herd structure in 2007, there were 2 dominant groups of livestock: the 47.7 % or 50,337 heads of livestock are goat and 45.6 % or 48,068 heads are sheep. The increased number of goat would lead to serious pastureland degradation or overgrazing. Thus, it needs to be precise and follow sustainable herd structure.

Table 30

**Incomes and Expenses of Herders**

	Numbers	Per cent
Numbers of herder households	448	80.2
Numbers of herder households that earn incomes from livestock and non-livestock products	110	19.8
Numbers of households, whose members do hunting for their interests and benefits	132	28.8

According to the data above, 80.2 % of households engaging in animal husbandry production throughout three Bags of two Soums. It shows that the households mainly use livestock products for their basic household needs.

Table 31

**Differences of living conditions of households that go hunting**

Living conditions	Numbers of households	Per cent
Wealthy	7	5.2
	78	57.8
Poor	38	28.1
Very poor	12	8.9

According to the findings on living conditions of targeted area herders, living conditions of 57.8 % or 78 households of 135 herder households surveyed are moderate and 28.1 % or 38 households are poor or from vulnerable groups. However, the numbers of wealthy and very poor families are less. Most of herder families have moderate and

below moderate living conditions. We regard that these are relevant to education of family members and they are still lack in appropriate knowledge and education that would assist them to improve their livelihood during the market economy.

Table 32

### **Haymaking fields of herder families in three Bags of two Soums**

Numbers of households	117
Total haymaking field area (ha)	99.35

25.5 % or 117 households of targeted areas do harvest hays and fodder in 99.35 ha of haymaking fields.

### **CONCLUSIONS & RECOMMENDATIONS**

- According to the four year (2004-2008) baseline survey data on socio-economic conditions of herders of two Bags of Bukhmunur Soum and one Bag of Sagil Soum, the numbers of small livestock were increased rather than the numbers of big livestock. One of main constraints in the targeted region is smuggling of livestock.
- Most of herder family households in three Bags, Khadaan Us, Gurvan Jiregtei and Uureg Nuur, have incomplete secondary education (48.09 %) and primary education (30.68 %).
- According to the participatory survey findings on living conditions of herder families, there is quite big difference in living conditions of two Soums. While the 25.7 % of herder families in Bukhmunur Soum are poor, 0.84 % are very poor, the 40.0 % of total herders of Bag 4 in Sagil Soum are poor and 25.5 % are very poor.
- According to the age classification of herders, most of herders are 16-34 years old. The survey data show that most of herders of the targeted areas had engaged in livestock herding already before livestock privatization starting from their childhood.
- Majority of heads of herder families in Khadaan Us, Gurvan Jiregtei and Uureg Nuur Bags have incomplete secondary education.
- Main income generation source of herder families is livestock production or products. However, this is not sufficient enough to supply their basic household needs. Most (67.0 %) of herder families incomes are generated from cashmere business. However, herders live and rely on from loans to loans until they comb their goats and sell them.
- Although herders follow traditional livestock herding and pastureland use practices, their herding business is not so successful due to poor infrastructure e.g. road, wells, informal artisanal mining and social services and unsustainable herd structure (heads of goat). Additionally, vegetation cover has been deteriorated due to global warming process, lack of precipitation, increasing droughts and unsustainable use of pastureland as the herders complain.

- According to survey data, a half of total herders of three Bags have haymaking field.

### **COMMENTS & RECOMMENDATIONS**

For the improvement of livelihood of local residents of three Bags of two Soums, where a project “Community based hunting management “ is implemented, and increased participation of local communities in the sustainable use of natural resources, the following comments and recommendations are given:

1. Organize phase-by-phase training on improvement of quality and health of livestock, not on heads of livestock;
2. Support the herders, who wish to learn about vegetable planting/gardening, with methodological advice (at present, local herders exchange 1 bag of vegetable with a young goat);
3. Support herder communities that carry out environment conservation activities, with funding and methodological advice for implementation of some important activities from their action plans;
4. Develop socio-economic baseline surveys of each partnership in immediate future based on this baseline survey findings;
5. Conduct public awareness activities among local communities once illegal actions on use of natural resources are still found and recorded in the targeted region;
6. Finally, it needs to pay particular attentions to an integrated rural development approach, livestock product processing and marketing at grass root level in order to improve income generation, supply household needs and local market demands and to give a priority to support and assistance to the environmental partnerships.