**UNDP GEF** (ENSURE) Ensuring Sustainability and Resilience of Green Landscapes in Mongolia Project

> Provision of service to conduct a Market Assessment for Project Landscapes and Assist Community Groups with Market Planning

# **Final report**

October 2019 - June 2020

Prepared by Marketing Team, Nisadon LLC

22 July 2020

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# Abbreviations

ENSURE	"Ensuring Sustainability and Resilience of Green Landscapes in Mongolia" project
PUG	Pasture User Group
МЕТ	Ministry of Environment and Tourism
BCA	Bagh Citizens Assembly
SCRA	Soum Citizens Representatives Assembly
UNDP	United Nations Development Program
PIU	Project Implementation Unit
MOFALI	Ministry of Food, Agriculture and Light Industry

## I. Summary

- 1. The Ensuring Sustainability and Resilience of Green Landscapes in Mongolia project has been implemented for 7 years in 13 soums of Zavkhan, Arkhangai, Bayankhongor and Govi-Altai aimags by the United Nations Development Program, Ministry of Environment and Tourism, Ministry of Food, Agriculture and Light Industry.
- 2. The goal of the project is to improve the ecosystem of the Sayan, Khangai Mountains and the South Govi, and to support sustainable livelihoods and protect biodiversity by reducing pasture and forest degradation under 4 components. Under the component "Protecting biodiversity and improving ecosystem services by supporting local livelihoods", the marketing team of Nisadon LLC executed the contract "Provision of service to conduct a Market Assessment for Project Landscapes and Assist Community Groups with Market Planning" from October 2019 to June 20, 2020. The marketing team composed by D. Nyamdorj (Ph. D), S. Munkhbayar (MBA), Ch. Erdenechimeg (M. Agri), Ch. Naranchimeg (Ph. D), B. Ariunbold (MBA) including assistants.
- 3. Within the contract, there were assessed institutional and social economic analysis, local products and markets, infrastructure, logistics, storage, transportation conditions and development planning in the project soum of different geographical landscapes, conducted consultative meetings, product choose, and developed 4 business plans for the selected products, taking into account the marketing channels and the challenges of entering markets, and made conclusions and recommendations.
- 4. The following 5 reports were prepared by the team and presented to the PIU. These include: (i) The Initial Phase Report (October 31, 2019) includes work related to the development of the work plan, evaluation methodology, survey questionnaires, review of project documents, visit schedule, route development, and preparation. At the meeting with the PIU and the project advisors (October 25, 2019), a consensus was reached on the terms of reference. (ii) The progress report (December 11, 2019) includes the socio and economic status in 13 project soums, the briefings of the field trip, and the processing of information collected from the survey. (iii) The Socio-Economic Assessment Report (January 1, 2020) comprised institutional capacity analysis, soum and institutional economic structure, diversification, agricultural and non-agricultural products, timber and non-timber forest products, and potential products identification. (iv) The Market Assessment and Income Development Report (February 5, 2020), contains about the sectors and sources that generate the income of the regions, the areas of interest to increase their income in the future, expenditures related to herder households and individuals, raw materials, Information on what future development plans they are interested in, how it is supplied to the market, and green loan financing. (v) The final phase, the 4 business plans were developed to make goat's milk curd in the local area, to improve the sheep wool and meat supply system. The draft final report together with the business plans were presented to PIU and its advisors on July 6, 2020, and the recommendations and suggestions from the PIU were reflected on relevant documents and presented to the (technical) Working Group on 22 July 2020, which was established by the State Secretary of Ministry of Environment and Tourism.
- 5. We would like to express our gratitude to the Ministry of Environment and Tourism, Ms. Khishigjargal Kharkhuu, UNDP Programme analyst, Mr. Erdenebileg Batmunkh, PIU, Ms.Nasandelger Zandan, livelihood development advisor and other experts for their guidance.

## II. Deliverables

 The Ensuring Sustainability and Resilience of Green Landscapes in Mongolia (ENSURE) project has been implemented by the United Nations Development Program (UNDP), Ministry of Environment and Tourism, Ministry of Food, Agriculture and Light Industry (MOFALI) for 7 years covering 13 soums of Arkhangai, Zavkhan, Bayankhongor and Govi-Altai aimags, representing the Sayan, Khangai mountain ranges and the southern Govi. The below table shows the location of the project area, aimag and soum.

Table 1 Project location			
Landscapes	Location	Aimag	Soum
Tarvagatai	Forest steppe	Zavkhan	1.lkh-Uul
mountain			2.Tosontsengel
Bukhun Shar		Arkhangai	1.Battsengel
Mountain			2.Ulziit
			3.Khairkhan
			4.Erdenemandal
Ulaan Shal Valley	Desert region	Govi-Altai	1.Chandmani
		Bayankhongor	2.Baatsagaan
			3.Bayantsagaan
Zarman Govi		Govi-Altai	1.Tsogt
			2.Erdene
		Bayankhongor	3.Bayan-Undur
			4.Shinejinst

2. The summary of the work performed by the marketing team is given below.

## Table 2 Ажлын гүйцэтгэл

Report	Content	Deadline	Submitted
Inception report	Work plan and research methodology were developed and discussed. Familiarized with project documents.	2019.10.30	2019.10.30, 2019.11.17
Progress report 1	Soum and local surveys and data conversion. A socio-economic assessment was conducted and a report was prepared and presented. Training on business planning stages was organized	2019.12.11	2019.12.11 2019.12.18 2020.01.01
Progress report 2	Prepared and presented a report on market development and revenue assessment. Multi-stakeholder consultation meeting, discussions organized.	2020.02.05	2020.02.07
Final report	Curd production, Chandmani meat, Meat supply chain, Wool supply chain (4) business plans were prepared and presented. Final report prepared and submitted.	2020.06.05	2020.05.30 2020.06.02 2020.06.26

3. During the initial reporting phase, prepared survey questionnaires, developed methodologies, conduct surveys. In the first progress report period, entered data collected from surveys into SPSS software, analysed data a consultative meeting and a multi-stakeholder forum on business planning were organized. A socio-economic assessment report was prepared and presented to the PIU. In the second phase of progress, market and livelihood development report was prepared and a business plan consultation meeting was organized electronically. At the final stage, 4 business plans and a final report on the improvement of goat's milk curd, sheep's wool and meat preparation system were developed and presented.

# III. Methodology

- 4. Survey methodology to be taken from the project soums was developed and introduced to PIU. In addition, a field survey schedule, routes, questionnaires, semi-structured interview questionnaires, value-added player interview checklists, and a list of information to be obtained from project soum representatives and aimag coordinators were developed. Primary data was collected through questionnaires, one-on-one interviews, focus group meetings, and observation.
- 5. Of the 827 people surveyed, 39 percent were enrolled to semi-structured interview, 24 percent were to focus group, and 37 percent were to face-to-face open interview. Of these, 31% / 256 people / are in Arkhangai aimag, 22% / 185 people / are in Zavkhan aimag, 28% / 233 people / are in Govi-Altai aimag, and the remaining 19% / 153 people / are in Bayankhongor aimag. The number of aimag and soum residents surveyed is shown in the following Table.

Nº	Location	Informant	Questionnaire	Focus group discussion	Individual meeting
	Total	<u>827</u>	324	200	303
1	Arkhangai aimag center	14			14
2	Battsengel	64	36	10	18
3	Ulziit	61	25	11	25
4	Khairkhan	56	21	10	25
5	Erdenemandal	61	25	14	22
6	lkh Uul	90	45	17	28
7	Toson	82	29	21	32
8	Zavkhan aimag center	13			13
9	Govi-Altai aimag center	15			15
10	Tsogt	47	16	16	15
11	Bayan Tooroi village	35	15	15	5
12	Erdene	54	17	17	20
13	Chandmani	37	12	12	13
14	Bayantsagaan	64	33	18	13
15	Bayan-Undur	45	20	15	10
16	Shinejinst	34	16	10	8
17	Baatsagaan	41	14	14	13

Table 3 Survey enrollment

18	Bayankhongor	14		14
	aimag center			

- 6. The informant were representatives of aimag and soum authorities, specialists, Regional Special Protected Area staff, project representatives, other project staff, pasture user groups (PUGs), forest user groups, cooperatives, companies, local small businesses, and local commodity traders, local transportation drivers and warehousing businesses
- 7. The assessment was done mostly by using the Manual of the Market Analysis and Development (UNFAO 2000), for establish and support community-based tree and forestry organizations. The stages of the study are shown below.



	Step 1	Analyze organizational development areas and collect information
	Step 2	Choose the most promising product
	Step 3	Create a group interested in the selected product
Output	•	A selection of the most promising products and a set of information needed for a business plan
		An interest group is identified that is interested in the product
		A working group or team of members of the target group to implement Stage 3
Stage 3	Business planni	ng
	Step 1	Examine the business environment of selected products
	Step 2	Clarify the organization's mission, goals, and objectives
	Step 3	Develop a business plan with stakeholders
	Step 4	Make financial calculations for the organization
	Step 5	Introduce the plan and make suggestions

## IV. Social and economic assessment

8. This section covers institutional capacity, soum and institutional economic structure, diversification, initiatives of agricultural and non-agricultural origin, timber and non-timber forest products, medicinal plants, ecotourism, market potential, researched the range of potential products. Subjects were sampled and the methods such as structured interviews, focus group interviews, face-to face interviews, and observations were used for collecting data that were analyzed using SPSS software.

able + Assessment methods and subjects							
Field	Method	Subject					
Institutional	Structured interviews and	PUGs, forest user groups, cooperatives and					
assessment	observations	other legal entities.					
		Soum project representative and institutional					
		representative					
Revenue and market	Structured interviews, face to	Suppliers, intermediaries and traders.					
assessment	face interviews and	Representatives of the above herders and					
	observations	intermediaries in the soum					
Value chain	Focus group discussions and	Market players in soums and aimags involved					
	face to face interviews	in the value chain.					
		Representatives of the above herders and					
		intermediaries in the soum					

Table 4 Assessment methods and subjects

6. Out of a total of 50 local people surveyed, 22 (44%) were women and 28 (56%) were men. Age representation is fully met. Each region is shown in the Table below:

#### Table 5 Informant

Regionнутаг	Person	Female	Male
Bukhun Shar Mountain	28	12	16
Tarvagatai mountain	7	2	5
Zarman Govi	8	4	4
Ulaan Shal Valley	7	4	3
Total	50	22(44%)	28(56%)

9. The institutional capacity of each region was assessed on the following key indicators. These include: collective experience, membership, family and individual organization, legal capacity of the collective, contract, charter, type of investment, amount and form of capital, decision-making principles, scale evaluation, etc. has been evaluated. The summary of the assessments for each region is shown in the Table below.

No	Indicate	/	Bukhun Shar	Tarvagatai	Zarman Govi	Ulaan Shal
		I .	Mountain	Mountain		valley
1	Percentage of	cooperative	41.7	42.8	50	14.3
	members of the surveyed	forest friendship	25	28.6	25	
	community	PUG	29.2	28.6	25	71.3
		company	4.1			14.3
2	Community experience	0-4 year	36.3		25	57.1
	experience	5-9 year	31.7	28.6	12.5	42.9
		10-14 year	18.2	71.4	37.5	
		15- above	13.8		25	
3	Community membership, %	Household	76	85.7	100	57.1
	membership, %	Individual	24	14.3		42.9
4	Community household	Up to 10 households	33.3	40	33.3	33.3
	member share	11-50 households	33.3	40	16.7	
		51-100 households	8.6	20	16.7	33.3
		100 above	16.6		33.7	33.3
5	Community induvial member	Up to 10	33.3	20	20	33.3
	share	11-20	33.3			33.3
		21-50	8.3	20	40	
		51- above	24.9	60	40	33.3

Table 6 Institutional analysis

6	Legal	Community agreement	76.5	85.7	57	85.7
		None agreement	5.9	14.3	28.6	14.3
		Don't know	17.6		14	
7	Rule	Yes	88.9	83.3	57	100
		No	5.6	16.7	14.3	
		Don't know	5.6		28.6	
8	Rule	In Witten	86	67	57.1	100
		Verbal	14	33	42.9	
9	Community assets	Labor	29	16.7	33.3	16.7
	233613	Money	24	33.3	33.3	33.3
		Livestock	19	33.3	22.2	33.3
		Other	10	16.7	11.1	16.7
10	Asset amount, MNT	Up to 5 million	71	40	57.1	42.9
		5-50 million	14	20	42.9	42.9
		100 or above	14	40		14.3
11	Decision making	Jointly	81.3	80	100	100
		Management	18.7	20		
12	Internal cooperation	By scale	3.67	3.1	4.3	4.1



Figure 1 Community type



10. The graph shows which institutions have the largest number of members, with 71.3% of pasture users in the Ulaan Shal Valley and members of cooperatives in other areas.

11. The graph above shows the percentage of community experience in Tarvagatain Monutain and Zarman Govi, with 10-14 years of experience, while Bukhun Shar Mountain and Ulaan Shal Valley have 0-4 years.



#### Figure 3 Community membership



12. The graph above shows that in each region, the form of institutional membership is dominated by households, with the Ulaan Shal Valley region having a minimum of 57.1 percent and the Zarman region having a maximum of 100 percent.

13. Tarvagatain Monutain and Ulaan Shal Valley have the highest or 85.7% of collective agreements, Ulaan Shal Valley has 100% of rules in written and Tarvagatain Monutain 67% of rules in written. Zarman Govi region has a minimum of 57% rules and 57% written rules.

Figure 4 Community legal capacity



Figure 5 Community assets

14. The graph shows that the cooperative's capital formation is dominated by money in all regions, labor in the Zarman Govi region, and livestock in the Tarvagai Nuruu and Ulaan Shal Valley regions. The Bukhun Shar Mountain region is dominated by up to 5 million MNT and 71%, while the Ulaan Shal Valley Zarman Govi region is dominated by institutions with assets of 5-50 million MNT and the Tarvagatai mountain region is over 100 million MNT.



Figure 6 Community decision making

15. An analysis of whether community members make decisions individually and in consultation shows that Zarman Govi and Ulaan Shal Valley make 100% decisions together, and Bukhun Shar Mountain and Tarvagatai mountain areas make 18.7-20%.



Figure 7 Scale evaluation

- 16. The Zarman Govi region has the highest average of 4.3% and the Tarvagatain Monutain region has the lowest average of 3.1%.
- 17. The summary of the economic evaluations of the joint ventures in each region is shown in the Table below.

	able 7 Institution economy		Dukhun Char	Tonyogotoj	Zarman	Liloon Chal
No	In	dicator	Bukhun Shar Mountain	Tarvagatai Mountain	Zarman Govi	Ulaan Shal Valley
1	Community main income-	Wool and cashmere	26.9	28.6	50	28.6
	generation	Meat	19.2	71.4	33.3	21.4
		Hand crafts	19.2			14.3
		Milk, milk product	11.5		16.7	35.7
		Wooden product	7.7			
		Crop production	7.7			
		Other	7.7			
2	raw material withdrawal	From UB	30.4	16.7	25	18.2
		From soum	26.1	50	12.5	27.3
	form	Own	21.7	33.3	50	36.4
		From forest	17.4			
		From aimag	4.4		12.5	18.1
4	Operation	Yes	77.7	85.7	87.5	100
	plan existence	No	22.3	14.3	12.5	

Table 7 Institution economy

Written         33.3         33.4         42.8         42.8           Other product market availability         Crop production         24         60         42.9         17.4           Food production         16         20         28.6         21.7           Shop         4         8.7           Social services         4         14.3         8.7           Tourism         20         4.3         8.7           Social services         14.3         8.7           Social services         21.2         4.3           Constructing         16         8.7           Other         24         21.8           Other         24         21.8           Other         24         16.7           Burceracy         12.1         16.7         14.3           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Income source         17.2         33.3         20 </th <th>5</th> <th>Plan development</th> <th>Verbal</th> <th>66.7</th> <th>66.6</th> <th>57.2</th> <th>57.2</th>	5	Plan development	Verbal	66.7	66.6	57.2	57.2
market availability         Food production         16         20         28.6         21.7           6         Shop         4         8.7         30.7			Written	33.3	33.4	42.8	42.8
availability         Food production         16         20         28.6         21.7           6         Shop         4         8.7         8.7         8.7           5         Social services         4         14.3         8.7           Constructing         16         8.7           Constructing         16         8.7           Other         24         8.7           Other         24         20.1.8           7         Obstacles         License         21.2         16.7           Burocracy         12.1         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16         16.7           8         Benefit of community         Increase         13.8         14.3         12           Improved and herder conflicts decreased         17         33.3         20         24           Output increase         13.8         14.3         12         <			Crop production	24	60	42.9	17.4
6         Social services         4         14.3         8.7           Tourism         12         20         4.3         8.7           Souvenir         12         20         4.3         8.7           Constructing material         16         8.7         4.3         8.7           7         Obstacles         License         21.2         16.7         7.1         11.1           Burocracy         12.1         16.7         7.1         11.1         1.6         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7         14.3         16.7           Equipment         15.2         25         42.9         33.3         16.7           Labor and other         3         16.7         16         16.7         16           Livelihood community         Income source increase         24.1         50         85.7         16           Pasture use improved and herder conflicts decreased         13.8         14.3         12         12           More friends, became colleagues, the good mood         17.2         33.3<			Food production	16	20	28.6	21.7
Tourism         14.3         8.7           Souvenir         12         20         4.3           Constructing         16         8.7           Other         24         21.8           7         Obstacles         License         21.2         16.7         7.1         11.1           Burocracy         12.1         16.7         7.1         11.1           Burocracy         12.1         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16.7           Labor and other         3         16.7         16.7           Livelihood         17.2         33.3         20           Pasture use         13.8         14.3         12           More friends, decreased         17         23.3         20           More friends, became         17.2         33.3         20           More friends, became         17         23.8         14.3         12			Shop	4			8.7
Souvenir         12         20         4.3           Constructing material         16         8.7           Other         24         21.8           7         Obstacles         License         21.2         16.7         7.1         11.1           Burocracy         12.1         16.7         7.1         11.1           Burocracy         12.1         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16           Livelihood community         Income source increase         24.1         50         85.7         16           Livelihood improvement         17.2         33.3         20         20         24         24         24           More friends, became colleagues, the good mood         17         23.8         14.3         12         24           Output increase         13.8         16.7         16         24         24         24         24         24         <	6		Social services	4		14.3	8.7
Constructing material         16 Other         8.7           7         Obstacles         License         21.2         16.7         7.1         11.1           Burocracy         12.1         16.7         7.1         11.1           Burocracy         12.1         16.7         7.1         11.1           Burocracy         12.1         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16         16.7           Income source         24.1         50         85.7         16           Income source         24.1         50         85.7         16           Increase         17.2         33.3         20         20           Pasture use improved and herder conflicts decreased         17         24         24           More friends, became colleagues, the good mood         17         24         24           Output increase         13.8         16.7         16			Tourism			14.3	8.7
material         material         24         21.8           7         Obstacles         License         21.2         16.7         7.1         11.1           Burocracy         12.1         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16.7         16.7           8         Benefit of community         Income source increase         24.1         50         85.7         16           Livelihood improvement         17.2         33.3         20         20         21         20           Pasture use improved and hereder conflicts decreased         13.8         14.3         12         24           More friends, became colleagues, the good mood         17         23.8         14.3         12           Output increase         13.8         16.7         16         24					20		
7         Obstacles         License         21.2         16.7         7.1         11.1           Burocracy         12.1         16.7         7.1         11.1           Burocracy         12.1         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16.7         16.7           Labor and other         3         16.7         16.7         16.7           Livelihood increase         17.2         33.3         20         16.7           Pasture use improved and herder conflicts decreased         13.8         14.3         12           More friends, became colleagues, the good mood         17.2         23.3         24           Output increase         13.8         16.7         16				16			8.7
Burceracy         12.1         16.7         14.3         5.6           Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16.7           Labor and other         3         16.7         16.7           Labor and other         3         16.7         16.7           Livelihood         17.2         33.3         20           Pasture use improvement         17.2         33.3         20           Pasture use inproved and herder conflicts decreased         11.8         14.3         12           More friends, became colleagues, the good mood         17         24         24           Output increase         13.8         16.7         16			Other	24			21.8
Professional skill         9.1         8.3         21.4         16.7           Equipment         15.2         25         42.9         33.3           Working capital         39.4         33.3         14.3         16.7           Labor and other         3         16.7         16.7           Labor and other         3         16.7         16.7           Labor and other         3         16.7         16.7           Income source         24.1         50         85.7         16           Increase         17.2         33.3         20         11.3         12           Pasture use improved and herder conflicts decreased         13.8         14.3         12         12           More friends, became colleagues, the good mood         17.8         16.7         16         14.3         12	7	Obstacles	License	21.2	16.7	7.1	11.1
Equipment15.22542.933.3Working capital39.433.314.316.7Labor and other316.7Labor and other316.7Income source increase24.15085.7Livelihood improvement17.233.320Pasture use improved and herder conflicts decreased13.814.312More friends, became colleagues, the good mood1724Output increase13.816.716			Burocracy	12.1	16.7	14.3	5.6
Working capital39.433.314.316.7Benefit of communityIncome source increase24.15085.716Livelihood improvement17.233.320Pasture use improved and herder conflicts decreased13.814.312More friends, became colleagues, the good mood17.233.816.7Output increase13.816.716			Professional skill	9.1	8.3	21.4	16.7
Labor and other316.78Benefit of communityIncome source increase24.15085.716Livelihood improvement17.233.320Pasture use improved and herder conflicts decreased13.814.312More friends, became colleagues, the good mood17.213.816.716Output increase13.816.716			Equipment	15.2	25	42.9	33.3
8Benefit of communityIncome source increase24.15085.716Livelihood improvement17.233.320Pasture use improved and herder conflicts decreased13.814.312More friends, 			Working capital	39.4	33.3	14.3	16.7
8Benefit of communityIncome source increase24.15085.716Livelihood improvement17.233.320Pasture use improved and herder conflicts decreased13.814.312More friends, became colleagues, the good mood1724Output increase13.816.716			Labor and other	3			16.7
improvement13.814.312Pasture use improved and herder conflicts decreased13.814.312More friends, became colleagues, the good mood1724Output increase13.816.716	8		Income source		50	85.7	
improved and herder conflicts decreased1724More friends, became colleagues, the good mood1724Output increase13.816.716				17.2	33.3		20
became colleagues, the good mood Output increase 13.8 16.7 16			improved and herder conflicts	13.8		14.3	12
Output increase     13.8     16.7     16			became colleagues, the	17			24
Other 14.1 12			Output increase	13.8	16.7		16
			Other	14.1			12



18. A graph of the community's main sources of income for each region shows that Tarvagatai mountain region is dominated by meat and meat products by 71.4%, while cashmere predominates in other regions.



Figure 9 Source of raw material

19. The figure above shows that it is generic that community supply raw materials from its fams, then from soums and Ulaanbaatar.





20. The figure shows that the cooperatives in each region have an action plan, but it is mostly verbal, and in the Zarman Govi and Ulaan Shal Valley, 42.8% are confirmed in writing.



Figure 11 Alternative production opportunity

21. When the community studied the possibility of engaging in other production and services, 60% of the Tarvagatai mountain range and 42.9% of the Zarmang region had the opportunity to work in the field of agricultural production and fodder production, while the other regions had food production, bread and bakery, The cake seems to have the opportunity to engage in such services as sliced flour.



22. According to the survey, 42.9% of Zarman, 33.3% of Ulaan Shal Valley and 25% of Tarvagatai mountain areas lack tools, working capital and professional skills. There is a need for training and experience.



Figure 13 Benefits of community cooperation

23. As can be seen from the Figure above, working together as community members in all regions has improved income generation and living standards, improved pasture use, and reduced herders' pasture disputes.

# V. Market assessment and livelihoods

- 24. A total of 245 people from the project area were surveyed, including 127 women (51.8%) and 118 men (48.1%). The Zarman Govi and Ulaan Shal Valley regions had the highest percentage of women, while the Bukhun Shar Mountain and Tarvagatai mountain regions had the highest male participation.
- 25. In terms of family size, the majority of participants were from 1 to 6 families in the region. In terms of age structure, they were 31-60 years old from the Bukhun Shar Mountain landscape, mostly 31-55 years old from the Tarvagatai mountain landscape, and 30-50 years old from the Zarman Govi landscape. age groups, 30-45 and 51-60 year olds from the Ulaan Shal Valley landscape, respectively.
- 26. In terms of employment, herders in Tarvagatai mountain and Zarman Govi regions had the highest employment rates, while Bukhun Shar Mountain and Ulaan Shal Valley had the highest number of self-employed people. Representatives from 15 teams from the Zarman Govi landscape and 11 teams from the Ulaan Shal Valley landscape.
- 27. Livestock is the main source of income for the regions, accounting for 54.2% of Bukhun Shar Mountain, 43.6% of Tarvagatai Mountain, 38.8% of Zarman Govi and 39.3% of Ulaan Shal Valley. Details are shown in the following Table.

	Bukhun Shar Mountain	Tarvagatai mountain	Zarman Govi	Ulaan Shal Valley
Livestock	54.2%	43.6%	38.8%	39.3%
Mining	0.0%	1.3%	0.0%	3.3%
Tourism	1.4%	0.0%	0.0%	0.0%
Crop production	4.2%	6.4%	7.1%	3.3%
Trade	15.3%	6.4%	18.4%	14.8%
Production	8.3%	10.3%	10.2%	14.8%
Hand crafts	6.9%	10.3%	9.2%	9.8%
Wooden products	5.6%	10.3%	6.1%	0.0%
Medicinal herbs	0.0%	0.0%	1.0%	0.0%
Other	4.2%	11.5%	9.2%	14.8%

Table 8 Main source of income, by sector

28. The main source of income for the people of the region

- 1. In the Bukhun Shar Mountain region, the raw materials for livestock such as hides and skins (23.9%), Cashmere (20.4%), Wool (19.7%), and Meat (15.5%).
- 2. In the Tarvagatai mountain region, the raw materials for livestock such as hides and skins (24.5%), cashmere (17.7%), and wool (16.3%).

- 3. In the Zarman Govi region, raw hides and skins (27.4%), cashmere (20.8%), and wool 16 (16%).
- 4. The main sources of income for the Ulaan Shal Valley region are cashmere (22.8%), livestock raw hides and skins (20.5%), wool (18.1%), and meat (15.0%). Details are shown in the following Table.

Items	Bukhun Shar Mountain	Tarvagatai mountain	Zarman Govi	Ulaan Shal Valley
Leather	23.9%	24.5%	27.4%	20.5%
Milk	6.3%	6.8%	6.5%	6.3%
Dairy products	2.8%	7.5%	6.0%	6.3%
Meat	15.5%	12.2%	13.1%	15.0%
Wool	19.7%	16.3%	14.9%	18.1%
Cashmere	20.4%	17.7%	20.8%	22.8%
Logging	3.5%	3.4%	0.6%	0.0%
Wood products	3.5%	4.8%	3.6%	0.0%
Tourism	1.4%	0.0%	1.2%	0.0%
Fuel	0.0%	0.7%	1.2%	0.8%
Medicinal plants and geographically indicated products	0.0%	0.0%	0.0%	0.8%
Other income	2.8%	6.1%	4.8%	9.4%

Table 9 Source of income of people in regions

29. In addition to animal husbandry, there are opportunities to increase income and run small and medium enterprises, as shown in the Table below. Respondents believe that it is important to expand agriculture, fodder production, potato and vegetable production, food production, household services and tourism in all regions.

Field	Bukhun Shar Mountain	Tarvagatai mountain	Zarman Govi	Ulaan Shal Valley
Agriculture	20.9%	18.0%	18.5%	10.6%
Food industry	13.2%	9.0%	10.7%	12.5%
Crafts	7.7%	10.1%	11.8%	7.9%
Educational services	5.5%	3.4%	2.6%	4.2%
Health care	4.9%	3.4%	6.3%	4.6%
Shopping	3.3%	2.8%	4.1%	0.5%
Household services	7.7%	6.7%	7.0%	8.8%
Auto repair	3.3%	3.9%	3.3%	7.4%
Pig farming	2.2%	0.6%	0.4%	1.4%
Chicken farming	0.5%	1.1%	2.2%	2.8%
Fisheries	0.5%	0.6%	0.0%	0.9%
Gifts and crafts	1.1%	0.0%	1.8%	2.8%
Catering	2.7%	2.2%	4.1%	3.7%
Tourism	6.0%	12.9%	9.6%	6.5%
Stitching	6.6%	8.4%	9.2%	8.8%

Table 10 Additional income opportunities other than livestock

Manufacture of construction materials	6.0%	3.9%	3.0%	9.7%
Wood products	5.5%	9.6%	3.0%	6.5%
Transportation	2.2%	2.2%	1.8%	0.5%

30. Studied how each region is interested in how to market and sell its products, reduce the number and quality of livestock, and expand its business. The majority of the customers sold their products based on an order. The desire to improve the number of livestock was dominated by people with 100-200 or more animals. More than 86 percent of all regions are interested in continuing their business. The table below summarizes each region.

Table 11 Sales					
Indicator		Bukhun Shar Mountain	Tarvagatai Mountain	Zarman Govi	Ulaan Shal Valley
how to market	Sell to soum stores	27	18	34	50
household	Sell themselves	55	53	38	39
products	Sell to aimag market	9	29	28	11
	Household with up to 100 animals	14.3	50	25.8	13
Whether to	101-200	9.5	28.6	19.4	39.1
reduce the number of	201-300	23.8		19.4	30.4
livestock and	301-400	19	7.1	9.7	8.7
improve their	401-500	4.8	14.3		4.3
quality	501-1000	9.5		22.6	4.3
	above 1000	19		3.2	
interest in continuing the	Yes	94	91	100	86
business	No	6	9		14



Figure 14 Way of sale

- 31. The Figure above shows how 55% of the Bukhun Shar Mountain Zone, 53% of the Tarvagatain Monutain Zone, and 50% of the Ulaan Shal Valley Zone produce and sell their products to order in each region.
- 32. In order to identify the challenges and needs for production in each region, people have poor purchasing power, sell their products on credit, live in remote areas, lack jobs, and do not have access to soft loans for finance and equipment. In terms of demand of supports, the response was that financial, training and equipment support is needed. The following table shows by each region.

Table 12 Prob Indicator Challenges	<ul> <li>blems faced</li> <li>Bukhun Shar Mountain</li> <li>Equipment</li> </ul>	Tarvagatai mountain    The plant cannot	Zarman Govi <ul> <li>Remote</li> </ul>	Ulaan Shal Valley <ul> <li>Remoteness</li> </ul>
to reach market	<ul> <li>Sold on credit</li> <li>Poor purchasing power</li> <li>Finance</li> </ul>	operate at full capacity • weak market purchasing power • •Poor sales • •Away from traffic • Livestock prices fluctuate • equipment • loans	<ul> <li>lack of jobs</li> <li>sells on credit</li> <li>poor cash flow</li> <li>small population,</li> <li>poor purchasing.</li> </ul>	<ul> <li>Citizens' purchasing power</li> <li>Many competitors</li> <li>Finance</li> <li>Lack of equipment</li> <li>Transportation</li> </ul>
Support needed to start a new business	<ul> <li>finance</li> <li>jobs</li> <li>Optimal</li> <li>system policy for</li> <li>sales</li> <li>training</li> </ul>	<ul> <li>place of employment</li> <li>low interest loans</li> <li>equipment upgrades</li> <li>market capitalization</li> <li>training</li> <li>government policy</li> </ul>	<ul> <li>financial and financial support</li> <li>equipment, workplaces,</li> <li>financial training</li> </ul>	<ul> <li>Agriculture</li> <li>Financial training and information</li> <li>Equipment</li> <li>Government support soft loans</li> </ul>

- 33. When people in the region study how agricultural raw materials are sold, they usually give them to 1-3 intermediaries, and because they can't sell them on their own, they give them to intermediaries. Farms, businesses and herders in the regions are named as intermediaries supplying raw materials
  - 1. In the Bukhun Shar Mountain region, individuals supply 64.4% of raw materials to traders, 20.3% to shops, 10.2% to factories, and 5.1% to other locations.
  - 2. In the Tarvagatai mountain region, 80% of raw materials are supplied to individuals and traders, 13.3% to shops, 6.7% to factories, and 0% to other places.
  - 3. In the Zarman Govi region, individuals supply 60.4% of raw materials to traders, 27.5% to shops, 8.8% to factories, and 3% to other locations.
  - 4. In the Ulaan Shal Valley region, individuals supply 60.9% of raw materials to traders, 34.4% to shops, and 4.7% to factories. Details are shown in the following Table.

Name	Bukhun Shar Mountain	Tarvagatai mountain	Zarman Govi	Ulaan Shal Valley
Individual mediator	64.4%	80.0%	60.4%	60.9%
Shop owners	20.3%	13.3%	27.5%	34.4%

Table 13 Mediators in input supply

Processing workshops	10.2%	6.7%	8.8%	4.7%
Other	5.1%	0%	3%	0%
Total	100%	100%	100%	100%

- 34. In all regions, there are following difficulties in providing raw materials to intermediaries: prices fall sharply, prices are very low, prices are unstable, there is no transportation for ammunition, there is no warehouse, and there are no intermediaries to buy some raw materials (sheepskin, sheep's wool) and there is no state regulation.
- 35. The reason for giving raw materials to changers is that they are not able to deliver them to the national factory, they are not profitable, they are far from transportation and settlements, and there is a shortage of manpower. Therefore, herders collect at home and bring it to soum, sometimes the soum mediator comes to pick them up, and sometimes nearby people jointly bring them to markets.
- 36. For delivering raw materials without a mediator, that is important for a national enterprise to have a representative in the soum, herders need to join cooperatives and pasture user groups, and to work collaboratively.
- 37. 60-74% of the respondents of the regions said that their monthly income is not enough for the total household needs. These include,
  - 1. 65% for the Bukhun Shar Mountain region
  - 2. 74% for the Tarvagatai mountain region
  - 3. 70% for the Zarman Govi region
  - 4. In the Ulaan Shal Valley region, 60% said their monthly income was not enough to cover their total household expenses. Details are shown in the following Figure.



Figure 15 Sufficiency of monthly income

## 38. The following Table shows that the types of expenditures are similar in all regions.

Costs	Bukhun Shar Mountain	Tarvagatai mountain	Zarman Govi	Ulaan Shal Valley
Food expenditures	27.9%	27.0%	23.9%	26.2%
Expenditures on non- food goods and services / fodder, fuel, transportation, fencing /	16.9%	18.2%	19.0%	16.5%
Gifts and help given to others	1.1%	5.7%	4.4%	6.1%
Investment in private farms	9.3%	9.4%	9.3%	7.9%
Spend on education	19.7%	17.6%	16.8%	15.9%
Health	15.8%	18.9%	19.0%	18.9%
Do it for savings	3.8%	1.3%	4.4%	5.5%
Others	5.5%	1.9%	3.1%	3.0%
Total	100%	100%	100%	100%

Table 14 Expenditures of household income



#### Figure 16 Expenditure distribution

- 39. The figure above shows that in all regions, 27-28% of income is spent on food, and 17-20% of non-food expenditures are spent on hay, fodder, shelter, fuel, children's tuition fees, and health care. Deposits of 1-4% of total income in savings are not ready to take any risks, any loans and donations are dependent, and living standards are not good.
- 40. A survey was conducted of local people on geographically indicated products and how they use them to generate income. From the regions, the majority of respondents, or 87-94%, answered that there were no geographically indicated products in the region. It was observed that the respondents did not know much about geographically indicated products.



Figure 17 Geographically indicated products

41. Figure below shows that there is an interest from all regions in the future to study whether there is an interest in increasing profits from the production of geographically defined products in the region.



Figure 18 Interest of production of geographically indicated products

- 42. In the Bukhun Shar Mountain and Tarvagatai mountain regions the natural fruits and berries processing, waste wood processing industry, herbal tea making, in the Zarman Govi, Ulaan Shal Valley regions the medicinal plant history, tea salt, Cynomorium Stem, watermelons, watermelons, apples and vegetables are considered possible to produce.
- 43. The diversification of production in the above-mentioned regions, the "geographical indication" and increasing production needs to be considered and should supported by the policy. Registration in the "Geographical Indications" is important for the successful launch of the product on the market, long-term stable supply to consumers, and the creation of additional conditions.
- 44. While 27 products with geographical indications have been registered and trademarked nationwide, of which ones related to the the project aimag is shown below (CCI, 2020).

Products	Applied by
Zavkhan red peeled garlic	Zavkhan aimag Uliastai soum Jargaltai cooperative
Undur Ulaan diary	Governor's office of Undur Ulaan soum, Arkhangai aimag
Mongolian yak wool	Mongolian Yak Association
Bayan-Undur stone music instrument	Bayankhongor aimag Bayan-Undur stone music association
Bayan-Undur white cashmere	Bayan-Undur white goat brand cashmere association
Zalaa Jinst white cashmere	Bayankhongor aimag Zalaa Jinst NGO
Red camel wool of Lama gegeen of	Bayankhongor Aimag Pasture Users
Bayankhongor aimag	Association

Table 15 Geographical indicated products

45. The following is an overview of the local raw material procurement system. *Cashmere* 

- Herders comb their cashmere and give it to the soum middleman.
- Soum middleman collects and gives it to aimag middleman and factories.
- Middleman stores it in the warehouse for a few days and give it to the Emeelt market factory and Chinese traders. They will hire a car and take it to Emeelt. 1 ton of cargo costs 200-250 thousand MNT.
- During cashmere season, cashmere will be provided using the money of the soum stores and large middlemen. When they go to their herder camps, they get 1,000-5,000 MNT cheaper and then supply in bulk amount.
- When a herder delivers cashmere to the soum center, he / she pays the cashmere at the price of that day. Payment will be taken immediately. In 2019, cashmere price started at 130,000 MNT when it first came out in the year, and the price dropped to 50,000-70,000 MNT. Last year's cashmere was 50,000 MNT.

- Cashmere from Tosontsengel and Ikh-Uul of Zavkhan aimag, Erdenemandal, Khairkhan, Ulziit and Battsengel soums Arkhangai aimag, which are involved in the project, are mostly bought by middlemen from Khuvsgul and Khuvsgul Leader Cashmere LLC.
- Cashmere from Bayantsagaan, Bayan-Undur, Shinejinst and Baatsagaan soums of the Bayankhongor project aimag is purchased by the soum middleman, aimag middleman, Chinese trader's representative and national producers. In Bayan-Undur and Shinejinst soums, the Sustainable Cashmere Project is implemented, and the cooperative's member households submit to the Sustainable Cashmere Project. The project washes it in Ulaanbaatar and exported, and the difference in value is distributed to the members of the cooperative.
- Cashmere from Tsogt, Erdene and Chandmani soums of Govi-Altai project aimagis purchased by soum and aimag middlemans. In recent years, cashmere auctions have been held in Chandmani soum, Bayantsagaan and Bayan-Undur soums to sell to the national industry, but sometimes price drops from its first call. *Wool*
- The soum middleman comes to pick up the wool while the herder keeps the wool at home. Otherwise, herders will drive to the soum center to sell.
- The wool invoice is written by the middleman who bought the wool. Thus, one will receive a government incentive of 1,000 MNT for 1 kg of Mongolian wool and 2,000 MNT for Mongolian approved breed wool. / Baidrag sheep, Darkhad sheep, etc./
- The middleman who collects the wool collects it in the soum center and aimag center, stores it in a warehouse, ships it in a truck and delivers it to the contracted national factory such as Erdenet carpet, Mongolian wool and Ulaanbaatar carpet.
- Middlemans who buy a small amount of wool do not write a bill, but take it directly and deliver it to Chinese traders at the Emeelt market. The middleman who buys wool has become rare due to the sharp fall in wool prices over the past two years. They buy only one national factory and stop when they reach their production capacity. Therefore, the sheep wool become priceless in all regions.
- Some cooperatives and individuals make felt in the Mongolian way, but it is seasonal. Mongolian felt is produced in Erdene, Tsogt soums of Govi-Altai aimag, Bayantsagaan and Baatsagaan soums of Bayankhongor aimag, but not in the other three seasons.

• There are no primary or deep cashmere processing plants in all project areas.

- Hide and skins
- Herders sell the skins of animals used for food and commercial slaughter to the soum raw material shop, and 1-2 people who regularly buy hides and skins to the soum traders. Payment is made immediately upon delivery.
- The soum buyer stored it in his warehouse and shipped to the middleman of Emeelt market and aimag center.
- The for those soum that are located in the north of aimag center, the middlemen of 4 soums of Arkhangai aimag and 2 soums of Zavkhan aimag ship the goods directly to Emeelt market in Ulaanbaatar, not to the aimag center. In the case of Govi-Altai and Bayankhongor aimags, some of the soum's middleman ship to the aimag's middleman, while others ship directly to Ulaanbaatar's Emeelt market.
- Horse hides cost 5,000-8,000 MNT in any region, and cow hides cost 5,000-7,000 MNT, depending on their age. In 2017, the price of horse hides reached MNT 50,000-60,000, depending on the color (black and white). The fall in the price of horse skins in 2018-2019 was due to the construction of a horse skin processing plant and the cessation of raw production of horse skins.

- According to national manufacturers, horse hides cannot be used in the processing due to mechanical damage and torn holes. Thousands of horse skins and sheepskins were stored in the backyards of middlemen who bought raw materials at the Emeelt market.
- sheepskin price was 1,000 MNT including guts. Soum middlemans take the guts and throw the skins in the garbage. Some were piled up in their backyards, assuming that prices would rise. The middlemen of the Emeelt market also collected thousands of salt in anticipation of rising prices.
- As for goat skins, they were expensive in autumn and winter. Goat skins in the eastern aimag are expensive because cashmere produced early and price rises early in the spring, and now the price is between 25,000 and 40,000 MNT in December and January. Cashmere in the western aimag, where it is cold, is produced late, combed in April and May, the goat skin costs 20,000-25,000 MNT.
- There are no primary and deep tanneries in the project area, and the hides are sold to the Emeelt market in Ulaanbaatar.

Meat

- Herders slaughter large numbers of animals in October and November, when the meat is
  frozen. In other months, it was used mostly for food consumption, or one by one, for sale
  to soum center residents. The soum's middleman only buys meat when it's frozen, and at
  other times he can't get it in large quantities because there is no refrigerated storage
  space. Depending on the price of meat, horses and cattle are shipped live to Emeelt
  market in June and July. Large livestock is shipped for 100,000 MNT. On the eve of the
  national holiday, animals from well-fed aimags are loaded onto trucks and sold at the
  Emeelt market for the meat of the holiday and for the food of Ulaanbaatar residents.
- Animals were slaughtered in group of people in the soum, slaughtered by hand, frozen, and given to the soum middleman or aimag middleman. The soum's middleman collects the meat and then sells it to the aimag's middleman or the aimag's meat factory. Some are sold to traders in Emeelt market.
- Large enterprises such as Meat Impex and Meat Market buy live animals in the spring, feed and fatten them up to the fall. Soum middlemans and herders, who have agreed to prepare meat from the aimag meat factory and a large national factory, go to the herders and collect the animals alive, graze them for a while, and then sell.
- Meat from the soums where the project is implemented usually goes to Emeelt market, and meat from eastern aimags usually goes to Khuchit Shonkhor market and Bayanzurkh market. The meat from the western aimag was leaner due to the droughts, so it was mixed with the meat from the eastern aimag and delivered to a Chinese factory at the Emeelt market.
- Meat for soum schools, kindergartens and hospitals is supplied by soum companies through tenders. Soum cafeterias did use have their own livestock. Soum center residents mostly get meat from their own livestock or buy it from herders and relatives.

## VI. Other topics

## 1. Green finance

46. Mongolia united to the UN Framework Convention on Biological Diversity in 1993 and in 2014 became an official member of the Nagoya Protocol. The Nagoya Protocol is an addendum to the Convention on Biological Diversity and undertakes to use genetic resources and related traditional knowledge and to distribute its benefits fairly and equitably. This protocol introduces the concept of "use, benefits, sharing and distribution" and introduces it into legal terms. It outlines the responsibilities of genetic resource providers and users, the protection of

traditional knowledge related to the genetic resources of local communities, and the equitable distribution of benefits and benefits from the use of traditional knowledge. The Nagoya Protocol also stipulates that the use of traditional knowledge in research requires the acquisition of a preliminary notice and the sharing of benefits and benefits, and the conclusion of a party agreement.

- 47. Within the framework of Mongolia's transition to an equally inclusive green economy, a Green Growth Policy was developed and approved by the Parliament in 2014, and an Action Plan for the implementation of the Green Growth Policy was approved by the Government in 2016. Strategic Objective 3 of the Green Development Policy states that "Introduce appropriate incentives for financing, taxes, loans and incentives to support the green economy, and increase investment in environmental protection, human development and clean technology".
- 48. Most of the financing of the green economy and investment is provided through banks, and the banking and financial sector plays an important role in implementing the Green Growth Policy. With the support of international organizations, a decision has been made to establish a green loan fund, and a working group chaired by the Mongolian Bankers Association has been established to develop the concept of the fund. The Ministry of Environment and Tourism has signed a cooperation agreement with Khan Bank, State Bank and Xac Bank to support green loan financing in 2019 to support the development of eco-products aimed at creating environmentally friendly consumption and reducing environmental pollution. The agreement provides for a 50% reduction in loan interest rates for projects such as the production of environmentally friendly products, the reduction of air pollution, the improvement of heating, and the construction of eco-treatment facilities in tourist camps. The bank loan interest rate will be reduced from 18-19% to 8-9% and the difference will be paid by the Ministry.
- 49. It is important to introduce green loan services to aimags and soums in order to provide financial resources to enable people in the project area to do business other than animal husbandry.
- 50. **The State Bank** provides loans from the revolving fund owned by the Ministry of Environment and Tourism and the Buffer Zone Council for Special Protected Areas to encourage local herders to adopt innovative and environmentally friendly approaches, in addition to protecting biodiversity and increasing livestock numbers. Loan applicants are required to
  - a. Inquiries from the National Park Administration about whether the applicant belongs to a buffer zone are available.
  - b. In the case of an environmentally friendly herder loan, materials must be submitted in accordance with the requirements of the herder loan.
  - c. In the case of an environmentally friendly business loan, the documents must be submitted in accordance with the requirements of the micro business loan.
  - d. Other relevant documents
  - e. All eligible projects are evaluated to determine whether they are environmentally friendly or negative.
- 51. **Khan Bank.** The green loan is a soft loan provided to people living in ger areas to reduce air pollution with the support of the Ministry of Environment and Tourism and the National Committee for Environmental Pollution Reduction. This loan will be provided for the purchase and installation of goods from contractors cooperating with Khan Bank.

- a. Electric heaters, insulation materials, eco-toilets, household stoves. 5-15.0 million MNT with an interest rate of 8% for a period of up to 30 months will be provided for the purchase of these items.
- b. Concessional interest-bearing loans will be provided for the construction of ecotreatment facilities in tourist camps with a capacity of up to 100 people and more. The maximum loan limit is 100 million.
- 52. **Khas Bank.** In 2019, the bank signed an agreement with the Ministry of Environment and Tourism to provide interest rate discounts to environmentally friendly businesses. "Eco Consumer Loan" you can introduce products and get insulation, electricity and other heaters.
  - a. Citizens can get a loan of up to 20 million MNT with an interest rate of 8% for a period of 30 months.
  - b. Provide interest-free loans for the construction of eco-sanitary facilities in tourist camps with a capacity of up to 100 people and more. The maximum loan limit is 100 million.
- 53. **Trade and Development Bank.** The bank has a policy to support the green economy and is the first to introduce an environmental and social risk management system. The purpose of this system is to conduct customer operations in an environmentally friendly manner, to assess the risk of the borrower's core operations and loan disbursements, and to take measures to reduce the negative impact on the environment and society. The business environment risk assessment is based on an initial and detailed assessment of the traffic light model, divided into 322 sub-sectors according to the economic sector coding These are: Green low risk, Yellow medium risk, Red High risk
- 54. **Golomt Bank.** The bank has adopted a sustainable financing policy. All loans are subject to environmental assessment and risk is rated. This year, the Ministry of Nature and Environment will participate in a program to support the green economy through interest rate policy. Loans are being provided to reduce heating losses and to produce eco-fuels. The policy is to reduce interest rates and support loans that have a positive impact on the environment.

Bank	Duration,	Interest	Ceiling,	Loan purpose
	month	rate	million	
			MNT	
Khaan, for	30	8	5-15	Electric heaters, household stoves and eco toilets
individual				
Khaan, for	30	8	100	Tourist camp treatment plant and bio-toilet
entity				
XAC, for	30	8	20	Insulation, electric and other heaters, eco toilets
induvial				
XAC, for	30	8	50-100	Tourist camp cleaning facilities, insulation,
entity				electric and other heaters, eco-toilets
State bank	30	8	15-20	Insulation, electric and other heaters

Table 16 Interest rate of the banks

55. The Ministry of Nature, Environment and Tourism, in collaboration with the United Nations Development Program, established a working group of researchers and other experts to draft the Law on Genetic Resources and develop a concept. In 2017, the Parliament approved the Law on Livestock Genetic Resources. This law regulates the registration, identification, preservation, protection, sustainable use and research of genetic resources of livestock and domestic animals. Livestock genetic resources will be used to strengthen and improve livestock breeding, increase productivity and quality, create new breeds and strains adapted to regional specifics, strengthen livestock risk tolerance, and introduce biotechnological advances in animal husbandry, technology, and services. The following organizations are authorized to study and develop genetic resources. These include: Livestock Research Institute, Central Laboratory, Experimental, Production and Service Base, Research Institution, Institute in this field, Technology Transfer Unit, Company, Science and Technology, Production Association, Livestock Breeding, Technological Work and Services units and livestock producers.

- 56. The informants have not known about a line of green financing and who and how many induvial or entities that obtained concessional green loans.
- 57. A survey of 13 soums involved in the project revealed the following resources. In all regions, traditional folk and medicinal plants have been used in medicine, hot and cold spring water has been used for many years, traditional tea has been made with various herbs, and natural salt and salt have been used to treat people and animals.:
  - Bukhun Shar Mountain- Tsaidam salt, tea plants, medicinal plants such as astragalus, Saposhnikovia divaricata, Dianthus superbus
  - Tarvagatai mountain- Tsetsuukh's hot and coldspar, tea plants, medicinal plants such as astragalus, Saposhnikovia divaricata, Dianthus superbus, saussurea involucrata
  - Ulaan Shal Valley- Tea salt, Cynomorium Stem (red), Glycyrrhiza, saussurea involucrata
  - Zarman Govi- Haloxylon, Nitraria, tea salt, Cynomorium Stem (red), Glycyrrhiza, saussurea involucrata

## 2. Sharing access and benefit

- 58. The variety of food, medicine, biopreparations, and cosmetics we use today are made from genetic material or synthetic materials. In this regard, the relationship between the least technologically advanced countries in the use of biological resources and the use of biological resources in countries with well-developed biodiversity have been discussed at the international level. Mongolia united to the UN Framework Convention on Biological Diversity in 1993 and in 2014 became an official member of the Nagoya Protocol.
- 59. The Nagoya Protocol is an additional agreement to the Convention on Biological Diversity, which undertakes to use genetic resources and related traditional knowledge and to distribute its benefits fairly and equitably. All States Parties to the Protocol shall use only legally acquired genetic resources in their territories and shall distribute the benefits thereof to the country holding the genetic resources. The protocol introduces the concept of "use, benefit, sharing and distribution" (ABS) and defines the responsibilities of genetic resource providers and users. It also highlights the importance of research on the conservation and sustainable use of biodiversity, and the protection of traditional knowledge about the genetic resources of local communities and the benefits and equity benefits of their use. "The use of genetic resources to study, analyse, collect, and create new products for the commercial, non-commercial, biochemical and genetic components of genetic resources and traditional knowledge related to genetic resources are obliged to enter into a transaction agreement by mutual agreement on the benefits to the possessor.

- 60. All biological bodies contain genetic material. Genetic material is considered to be a genetic resource from which real and potential benefits can be derived. These include: animals, plants and microorganisms. Globally, 95 percent of all patents for genetic resources and related traditional knowledge are owned by developed countries, while the remaining 5 percent are owned by poor countries. When traditional knowledge is used in research, it is necessary to obtain a "Preliminary Notice" and to enter into a "Party Agreement" to share and distribute the benefits
- 61. The Ministry of Nature, Environment and Tourism, in cooperation with the United Nations Development Program, has established a working group of researchers and other experts to draft a Law on Genetic Resources and approve the concept. One of the richest traditional knowledge related to genetic resources is the knowledge of traditional Mongolian medicine, which is one of the most valuable cultural heritages of Mongolians. However, with the exception of a few published works and chronicles, there is still no unified database of genetic resources. is getting started.
- 62. The users of the database will be citizens, researchers and professional organizations and decision makers, and their access to information will be different. For example, from this database, citizens will be able to view basic information on genetic resources of animal, plant and microbial origin in our country, traditional knowledge related to it, and a list of products based on this knowledge.
- 63. Field research and one-on-one and focus interviews with residents of 4 aimags and 13 soums involved in the project revealed the following resources. In all regions, traditional medicinal plants have been used to treat people, animals have been treated with hot and cold mineral water, traditional teas have been made with various herbs, and natural salt has been used to treat people and animal, which have been mentioned previous section.
- 64. n 2017, the Parliament of Mongolia passed the Law on Livestock Genetic Resources. This law regulates the registration, identification, preservation, protection, sustainable use and research of genetic resources of livestock and domestic animals. Livestock genetic resources will be used to strengthen and improve livestock breeding, increase productivity and quality, create new breeds and strains adapted to regional specifics, strengthen livestock risk tolerance, and introduce biotechnological advances in animal husbandry, technology, and services. The following organizations authorized to study and develop genetic resources are Animal Husbandry Research Institute, Central Laboratory, Experimental, Production and Service Base, Research Institution, Institute in this field, Technology Transfer Unit, Company, Science, Technology and Production Association, livestock breeding, technological work and service units, and livestock producers. The relationship between their roles shall be determined by this law.

## 3. Learning from local community

65. There are many opportunities to share experiences from other regions of Mongolia to improve their livelihoods of the project area communities. Following are samples.

Table 17 Communities to learn from				
No	Cooperative	Location	Activity	Contact

1	Od-kr cooperative	Arkhangai aimag centre	Agricultural production and agricultural raw materials	Tumurdavaa 99885777
2	Prosperity cooperative	Arkhangai aimag centre	Processing yak wool and make products	Batmunkh
3	Milk sprinkling cooperative	Tsakhir soum of Arkhangai province	Milk processing plant	99033845
4	Golden Glory Cooperative	Zavkhan province Erdene Khairkhan sum	Trade and services for the purchase of agricultural raw materials	Peace
5	Savings and loans	Durgun soum of Khovd aimag	Savings and credit activities	99339629
6	Fruit cooperative	Khovd aimag centre	Propagation of fruit seedlings	D.Sukhbaatar
7	Ultra Tsakh Cooperative	Uvs aimag centre	Fruit production	99366664
8	Warm water Erdene	Erdene soum of Govi- Altai province	Felt products and household services	Altangerel
9	Good cooperative	Govi-Altai province Khaliun sum	Agricultural raw materials, livestock production	98111487
10	Waterfall trail	Govi-Altai province Chandmani sum	Crop, barley flour	Tsendsuren
11	Altantsatsral cooperative	Sukhbaatar aimag Sukhbaatar soum	Agricultural raw materials Livestock and crop production	Haltar
12	Tunel Ochirt Cooperative	Tunel soum of Khuvsgul aimag	Crop and green fodder	99519881

- 66. The following initiatives were taken during the survey, which included individual and focus group discussions with representatives of cooperatives, PUgs, herders, and entrepreneurs.
  - 1. Participate in field trips to other aimags of Mongolia
  - 2. Introduce new technologies and innovations and how to develop farming in the local area
  - 3. То луйжи how the raw materials supplied to the national factory are processed and turned into products, and to see what quality meets the price requirements;
  - 4. Exploring how to develop intensive animal husbandry, learn from farmers' experiences, and see if there is a real opportunity to reap the benefits of becoming a farmer.
  - 5. To study the experience of local herders in herding
  - 6. Investigate opportunities to increase household income by processing meat and dairy products more efficiently
  - 7. To study the experience of moving from traditional animal husbandry to intensive animal husbandry and focusing on animal quality rather than quantity.
  - 8. Learn from experiences in conflict resolution for livestock breeders in overgrazed and drought-dzud risk areas

# VII. Business planning

67. Products from each region were studied, followed by a long list, followed by a short list, and a short list was selected through a series of forums, consultations, and discussions to develop a business plan.

- 68. In connection with business planning, December 2, 2019, December 21, 2019, January 23, 2020, and May 5, 2020. On June 2, 2020, Govi-Altai of Zarman Govi region, Erdene, Tsogt of Bayankhongor aimag, Shinejinst of Bayankhongor aimag, Bayan-Undur soum, entrepreneurs, herders, consultants, producers, project staff, step-by-step training on product selection, "Partners Forum" discussion and stakeholder consultations were held 6 times.
- 69. As a result of the above measures, a long list of products surveyed was discussed and a summary list was developed.

Soum	Goods	justification		
Bukhun Shar I	Mountain			
Arkhangai Battsengel	production of goat's milk cheese	Goat's milk is abundant, close to the market, and can benefit many groups		
	Production of briquettes by animal dung	It has a large stock of dung, can be marketed to attract consumers, and is less harmful to the environment		
	Tsatsin cave tourism camp development	Tsatsin cave has beautiful scenery, Tsenkher spa and tourist camp can attract domestic tourists		
Ulziit	Production of packaged tea soda	Good salt service, informal consumption, many orders from the city, good health service for the stomach		
	"From house to house" tourism development	There is an experienced intermediary who brings French and Czech tourists' home and travels "from house to house" in groups.		
Khairkhan	Khunnu Empire- Tourism Development	A vertical road to Khuvsgul is being built, old opportunities to expand services along the infrastructure are being revived, there are many historical monuments of the Khunnu period, and beautiful natural formations		
	Increase feed production	The cooperative produces 18 hectares of fodder crops and sells 3 hectares of green fodder. Large number of livestock. Demand is high in nearby soums.		
	Increase milk production capacity	experienced in group that makes milk fingers, uses local technology, and sells them in the aimag and capital city markets		
	Khairkhan bee honey brand development	It has 27 bee colonies, buys and sells 500 kg of honey per year, has a large number of bee pastures, and can become a brand in the future.		
Erdenemand al	Putting the meat factory into operation	Large meat reserves, Mongolian Chevro started construction in 2016, has a deep freezer and is electrified. However, it was stopped due to lack of funding for the construction of a treatment plant. The project needs to meet with stakeholders to explore opportunities for collaboration.		
	Establish a workshop for making curd curds	Explore the possibility of dealing with the accompanying skins together		

### Table 18 Short list

Soum	Goods	justification
	Janna - afforestation	It is made in small quantities, has a lot of goat's milk, has local knowledge on how to make it, and has the advantage of attracting more consumers than hard curds
Tarvagatai mo		
Zavkhan Их уул	Increase dairy production and packaging	Yak milk resources, groups are experienced, use small milk processing equipment, want to expand production, have a market in Erdenet and the capital city
	Improve small packaging of natural fruits and increase refrigeration capacity	The group households have a small workshop, a specially designed room, buy raw materials from the local area and neighbouring soums, and have many years of experience.
	Marketing support for home furniture and woodwork	We have experience in making home furniture and wood products, and there are burnt forest resources
Tosontsenge I	Boil the pan with natural fruits, improve small packaging and increase the capacity of the refrigerator	The group households have a small workshop, a specially designed room, buy raw materials from the local area and neighbouring soums, and have many years of experience.
	Some sawdust briquette plant equipment and working capital	If the briquette plant is borrowed and installed in 2019. Raw sawdust is free and has a lot of resources. Knowledge of briquette production.
	Build a dairy shop and get a cow	Acquired land in 2018-2019, purchased milk and dairy workshop equipment from the aimag Agriculture Department (project). There are about 10 local cows. Milk and dairy are supplied to the lunch program.
	Repair leather processing jobs and get some equipment	A local cooperative with 10 employees was established at a cost of 60 million MNT. It has cheap raw materials, good leather processing, and uses traditional methods to make sheepskin hats and national costume. Workplaces need to be repaired, sewers need to be renovated, and skin drainage equipment needs to be purchased.
Zarman Govi		
Govi Altai Tsogt	Harvesting and planting sorghum seeds	Natural resource-rich, vegetable-growing groups have experience growing, but the market is unsecured, unstable, and uncertain.
	Establish a small workshop for the production and packaging of goat's milk products	Experience making traditional home-made dairy products. Goats are numerous and have milk reserves. Establish a small workshop for milking, goat milk production and packaging by 5 households.
	Mother Khairkhan tourism	Domestic and foreign tourists visiting Mother Khairkhan are coming a lot. Establish a tourist camp with a program to maintain them.
Bayan Tooroi	Increase the yield of ground apples	There is a group of women who grow apples in two greenhouses. Increase yields by installing greenhouse

Soum	Goods	justification
		irrigation systems. It is supplied in bulk in large boxes to the capital city.
	Obtain an irrigation system and build a fence for the open field for growing vegetables	Cultivation opportunities are limited in the Govi, one of the few places where it is possible to grow. A group of experienced farmers. It grows and can grow vegetables that grow in hot climates. It is known in aimags and localities for its taste. The market is good.
Erdene	Support to improve crop irrigation	The size of the investment needs to be further explored. With irrigation, many households can grow vegetables.
	Develop camel rides based on market water	The Parliament's Zakhui Govi-Zambuulan Paradise Program has a motto. Domestic and foreign tourists visiting Mother Khairkhan are coming a lot. There is a group of Zarman who are interested in developing camel travel.
	Dry milk factory	A dry milk factory has been built and is ready for electrical use. In 2019, there was a drought and no raw materials. There is no working capital. The soum administration instructed to train 3 women. The owner of the property needs to be identified. Dry Milk is interested in buying powdered milk.
	Establish a service centre building	Many households that provide household services (4 shoe factories, 1 textile, 3 tailors, 1 hairdresser, 1 felt product) from home are interested in moving into one place. The old building needs to be repaired and heated.
Bayankhong or Shinejinst	Spa packing	White door spa packing. 15 years away from the soum, it is a good traditional spring for many years.
	Vegetable	Development of Ekhiin Gol agriculture. Launch Ekhiin Gol sweet vegetable brand. / It was a test site of a research institute /
	Tourism	Develop tourism based on historical monuments. It is based on Amar Buyant Monastery, Segs Tsagaan Bogd, Ekhiin Gol and Shar Ols. View the natural beauty of the world's only Govi bear and Great Govi Strictly Protected Area. Tourism showing 9 wonders of the Govi.
Ulaan Shal Va		
Govi-Altai Chandmani	Delivery of water to agricultural fields near Terguun Tergel Lake	A 1.2 km canal was built from the lake to the reservoir. The canal water is drying up and the canal needs to be lined. Cultivated on 1-hectare area. Increasing the size of the existing irrigated area below the reservoir will allow more households to engage in additional farming. Further advice from a water professional is required.
	Use of the built meat factory	A meat factory was built in 2017 with the help of Turkey, but the locals did not accept it. Ownership is unknown. Further clarification is needed.

Soum	Goods	justification
	Increase access to water for hay and crops	This area is planted with vegetables, green barley and hay. A canal was built from the waterfall to the square. 150 people are using it. The channel was previously repaired by the LAMP project. The canal needs to be rehabilitated and two wells drilled to increase water availability.
	Chandmani - Tourism	The local council sent a tourist route to Ama Byambadorj. We are interested in attracting investment, training herders based on the local community of Erdene, and attracting them to tourism.
	Production of Buural Eej curds	Local people produce traditional curds. The local council plans to make curd from Dashdorj based on herders in Erdene Uul bagh. Interested in industrial production of curds using equipment.
Bayankhong or Bayantsagaa n	Improve the rehabilitation of irrigated arable land	The Tsagduultai farm, located 50 km from the soum, has an area of 140 ha and currently uses about 30 ha. Old irrigation system. Repair the irrigation system and make full use of the area. / pipe and fence protection / Now it is owned by "Ikher Khashaat" cooperative. Forage crops are grown from oats. We grow vegetables, not hay, oats and oats. Improving irrigation can benefit many people. It needs to be studied in detail.
	Feed factory	Establish a regional fodder plant. "Goviin Saikhan" cooperative with 9 members with experience in handicrafts. Further equipment. It has experienced members who have worked in the cooperative's feed mill.
Baatsagaan	Buuntsagaan Lake - Tourism	The local cooperative will set up a tourist camp on 100 hectares of land to develop tourism. Organize bird and animal amateur tours.
	Goat brand curd production	Brand camel curd. Attracted experienced buyers.
	Manufacture of construction materials	There are a lot of raw material resources. The market is limited locally. Needs to be studied.
Bayan-Undur	Based on Amar Buyant Monastery -tourism	There is a historical monument, based on the main yellow rope of Amarbuyant Segs Tsagaan Bogd Ekh. View the natural beauty of the Great Govi Govi Strictly Protected Area, the only one in the world. Tourism showing 9 wonders of the Govi.
	Development of camel milk (beverage) brand	The locals say that the most unique and unique camel's milk comes from this area. There are enough raw material resources. Currently sold in bottles of fresh water. We need equipment because we are interested in packing and producing apricots in groups. Interested in brand development.
	Meat processing plant	Erdene Mongol Mining LLC will establish a meat processing plant in the Govi region. There is an initiative to build a meat factory in Bayantsagaan, Baatsagaan, Shinejinst and Bayan-Undur soums, which have large meat reserves.

70. The short list proposals in each region are summarized as followings:

- 1. **Bukhun Shar Mountain.** Production of goat's milk cheese, animal dung briquettes, pudding curd, packaged tsaidm soda, milk fingers, increase capacity, develop honey brand, put into operation a meat factory, increase fodder production, "Khot ail to khot ail", "Hunnu" empire, "Tsatsin cave" tourism development and afforestation.
- 2. **Tarvagatai mountain.** Increase dairy production, packaging, improve small packaging of natural fruits, increase refrigeration capacity, natural fruit cooking pans, sawdust briquette factory working capital, build a dairy shop, milking cows, repair leather processing jobs, some Get a packing device, do marketing of home furniture, Mongolian shoes and wooden items.
- 3. **Zarman Govi.** Harvesting of sorghum seeds, sowing of sorghum, production of goat's milk products, establishment of small packing shops, increase of apple harvest, cultivation of vegetables, supply of open field irrigation equipment, construction of fences, support to improve crop irrigation, commissioning of dry milk factory, household services The establishment of a central building, spa packaging, 9 wonders of the Govi, Eej Khairkhan, the development of water-based tourism.
- 4. **Ulaan Shal Valley.** To supply water to Terguun Tergel Lake farm, to put into operation the built meat factory, to increase access to water for hay and farm fields, to rehabilitate and improve irrigation of Tsagduultai farm, to produce fodder, to produce Buural Eej curd, goat brand curd, to develop camel milk (drink) brand, to build material production, Amar Buyant tourism development.
- 71. The above summary was narrowed down to consultative meetings and a priority proposal was made for the region.
  - 1. Ulaan Shal Valley team Goat's milk curd products
  - 2. Bukhun Shar Mountain team Propagation of seedlings for fodder production and reforestation
  - 3. Tarvagatai mountain team Processing of animal raw materials
  - 4. Zarman Govi team Crop production development
- 72. At the next consultation meeting with the project, it was decided to develop a business plan in line with the project's goals and objectives. The following 4 business plans are attached to the report.
  - 1. Meat supply system Bukhun Shar Mountain
  - 2. Buural Eej curds- Zarman Govi
  - 3. Chandmani meat Zarman Govi
  - 4. Wool supply system- Tarvagatai mountain, Ulaan Shal Valley
- 73. Meetings and stakeholder engagements have been established in the field of business planning.
  - 1. Bukhun Shar Mountain: Taij Group's "Khangai Khuns" LLC meat processing industry meat supply network
  - 2. Ulaan Shal Valley: Goat curd production in Chandmani soum, Govi-Altai aimag to increase the income of herder group
  - 3. Nomin Holding Erdenet carpet "Erdenet Text" LLC: Tosontsengel soum of Zavkhan aimag, Erdene soum of Govi-Altai aimag, Chandmani soum, Baatsagaan soum of Bayankhongor aimag, sheep wool supply chain of Bayantsagaan soum

- 4. Developed a business plan for cooperation with the Governor's Office of Chandmani soum and Khanjidbulag LLC on the use of the Turkish-invested plant in Chandmani soum, Govi-Altai aimag.
- 74. A discussion meeting of 18 people, including representatives of PIUs, project consultants and companies participating in the business plan, was held on June 2, 2020 in PIU. According to the suggestions made at the meeting, relevant amendments were made to 3 types of business plans and submitted to the PIU.
- 75. **Business plan-1.** "Khangai Khuns" LLC of Taij Group will implement a business plan to expand the local meat processing and meat processing network by establishing a cooling system for livestock and meat reception points in selected soums of the region and purchasing livestock meat from herders. As a result, the establishment of livestock and meat collection points will allow local herders to sell livestock and meat at market prices without intermediaries, and will be able to implement it in other aimags and soums in the future. It is important for the plant to reach its full capacity by purchasing livestock and meat through their own outlets without any intermediaries.
- 76. **Business plan-2.** An important business plan for Chandmani soum, Govi-Altai aimag, to increase the income of the herder group of "Bidnii Tus" cooperative by cooperating with herders to produce goat curd, create high-yielding commercial livestock, diversify herders' livelihoods and make every herder household a producer happened. In order to get closer to herders, exchange ideas and activate their activities, implement her suggestions, organize tithing groups based on local affiliations and siblings, and select well-known and active people as group leaders. 130 households and adults from 10 tithing groups have been reached. About 270 able-bodied people have signed cooperation agreements. In the future, there is an opportunity to unite other groups and involve not only Chandmani soum but also all herders in the aimag.
- 77. **Business plan-3.** "Erdenet Tex" LLC, Erdenet carpet branch of Nomin Holding Group, has developed a business plan to expand the sheep wool supply network in Tosontsengel soum of Zavkhan aimag, Erdene soum of Govi-Altai aimag, Chandmani soum, Baatsagaan soum of Bayankhongor aimag and Bayantsagaan soum. By supplying sheep wool to the national factory, soum herders will not only be able to make a profit, but will also have the opportunity to improve the quality of their wool and work more efficiently with 21,132 people living in the area. As sheep account for more than 26% of the total livestock in the soums, it is a project that will have a high impact on herders' livelihoods. Herders are leading the way in improving the quality of raw materials, such as transportation, improving herders' knowledge and information, and improving the quality of livestock.
- 78. 70% of herders in the 5 soums covered by the business plan regularly supply raw materials to 1-2 intermediaries, who are individuals and middlemen. The market for raw materials is the soum center. Immediate payment is the main reason for herders to gradually hand over raw materials to intermediaries. Individuals and herders do not have access to large quantities of raw materials because they do not have storage containers, but cooperatives with warehouses and companies combine the raw materials supplied by herders and supply them to aimag center intermediaries. Herders supply raw materials to individuals and middlemen for reasons such as fast cash sales, relatively high sales of fragrances, lack of regular supply points in the market, and low supply of raw materials. Therefore, the importance of this

business project to improve the wool supply chain is to improve the quality of livestock, keep commodity prices stable, and create opportunities for herders to unite.

79. **Business plan-4.** The Turkish-invested meat processing plant in Chandmani soum, Govi-Altai aimag, will establish a supply chain based on the identification of challenges facing herders in supplying meat and meat products to the market. As a result, meat will be purchased from local herders on a regular basis and delivered to consumers, the supply chain of selected regional meat and meat products will be improved, equipment for the meat processing plant will be purchased, workers will be fully operational, and regional herders will be organized for meat supply.

## VIII. Conclusions and Recommendations

80. Within the scope of the contract work, the following conclusions were made: geographical features of the project soums, socio-economic, livelihood, marketing assessment, regional green development planning documents, infrastructure, logistics, study of potential brand products, and development of business plan for selected products.

## Institutional

- 81. 14-50 percent of respondents are members of cooperatives, 25-29 percent are members of forest communities, and 25-29 percent are members of PUGs. In terms of membership, most are family-based cooperatives.
- 82. 27-50 percent of the community has a history of up to 4 years and 12-43 percent has a history of 5-9 years. The majority of respondents have collective agreements and rules, but up to 86 percent have written rules. In all regions, local government is recognized as a community institution.
- 83. With the exception of the Ulaan Shal Valley, the cooperative accounts for half of its have community capital. About 24-33 percent of this was in cash and 19-33 percent in livestock. Labor participation is 17-33 percent. Institutions with assets of up to MNT 5 million are 71 percent in Bukhun Shar Mountain, 10 percent in Tarvagatai, 57 percent in Zarman Govi and 43 percent in Ulaan Shal Valley.
- 84. PUGs and cooperatives are unable to hold meetings due to their remoteness, large herds, and long otor movement because of overgrazing.
- 85. In all regions, the majority of the community makes their plans orally.
- 86. In all regions, almost all members have the advantage of being able to participate in decisionmaking and reporting to management.
- 87. In all regions, a majority see that working together would increase revenue.
- 88. People in the region want to earn money by working in groups, but the soum does not take concrete steps to support it, and the soum development fund provides loans, but the amount is small, so what they have done is not realistic.

Economic operation

- 89. In the Ulaan Shal Valley, milk, dairy products, and cashmere account for the bulk of income, while in other regions, wool, cashmere, and meat products.
- 90. For all regions, the main raw material is sourced locally, with the exception of the Bukhun Shar Mountain region. The communities do not have a warehouse, and traders control the warehouse. In terms of transportation, the members of the community mainly use their own vehicles for trading.
- 91. In all regions, products are usually sold in soums and are common for shops and wholesalers to contract individuals and companies.
- 92. Due to the increase in livestock numbers and the lack of pastures in all regions, it is possible to grow fodder, grow vegetables, develop roadside catering and tourism businesses.
- 93. For all regions, there are tools, working capital, and professional skills, but for Bukhun Shar Mountain, the main challenges are documenting and obtaining permits.
- 94. The overall conclusions of the community economic activity Analysis are compared below.

Indicator	Bukhun Shar Mountain	Tarvagatai mountain	Zarman Govi	Ulaan Shal Valley
1.Community	wool, cashmere	meat, meat	wool, cashmere	Milk, dairy
dominant income	and meat	products, milk and	and meat	products,
structure	products	dairy products	products	cashmere
2. The main	Livestock	Wool and	Cashmere wool	Milk, dairy
revenue-generating	products	cashmere 28.6%,		products,
product	account for	meat and meat		cashmere
	57.6% of total revenue	products 71.4%		
3. Places where	30.4% from the	From all soum	From the	From the
basic raw materials	outskirts of	residents	household of their	household of their
are obtained	Ulaanbaatar		members	members
4. Where to buy	57.1% of total	100% from soums	Own household,	Own household,
auxiliary raw	withdrawals from	and households	87.5% from	88.3% from
materials.	soums and		Ulaanbaatar	Ulaanbaatar
	households			
5. Where do	Mostly in the	Mostly in the soum	Mostly in the	Mostly in the
cooperatives sell	soum		soum	soum
their products?				
6. The form in which	own shop,	own shops,	Orders for your	Orders for your
the cooperative sells	factory, contract	factories,	own retail store,	own retail store,
its products	company	wholesalers and	factory, or	factory, or
		other citizens	contracted individual	contracted
				individual
7. Is there a joint	69.7% orally and	66.6% orally and	company 57.1% orally and	company 57.1% orally and
action plan?	68.7% orally and 31.2% in writing	33.4% in writing	42.8% in writing -	42.8% in writing
8. In addition to	Production of	to produce fodder	Production of	Due to the
livestock breeding,	fodder for	for livestock and to	fodder for	drought, the
is there a market for	livestock due to	grow vegetables.	livestock due to	number of
joint production and	overgrazing and	grow vegetables.	overgrazing and	livestock has
services?	overgrazing		overgrazing.	increased, and
001110001	overgrazing		overgrazing.	

Indicator	Bukhun Shar Mountain	Tarvagatai mountain	Zarman Govi	Ulaan Shal Valley
			Develop food production, household services and tourism due to the lack of infrastructure far from the market	overgrazing has led to the production of fodder crops and vegetables. Development of food production, household services, auto repair and tourism due to poor infrastructure far from the market
9. What are the biggest challenges in implementing the planned production and services?	Lack of working capital, problems with licensing documents 60.6%		tools, equipment and professional skills 64.3%.	tools, equipment, working capital, professional skills difficulties 50.0%
10. What benefits and advantages have you and your family gained from joining the cooperative?	sources of income and living standards are rising by 41.3%. Working together increased labour productivity by 24.1%	sources of income and living standards are rising by 83.3%. Increased productivity by 16.7%	source of income and rising living standards 85.7% Pasture use is improving 14.3%	sources of income and living standards are rising by 52.0%. Improved pasture use, herders work together 24.0%

- 95. PUG members Herders and entrepreneurs lack a basic understanding of business and marketing, focus on quantity rather than livestock quality, lack knowledge and skills to process livestock benefits, and lack the ability to collaborate and share what they have learned.
- 96. There is a shortage of professional staff to run local processing plants and small businesses.
- 97. Herders have good business ideas, but they lack the skills of the group leaders who can lead them into action and sustain their operations.
- 98. Assessment has shown that in all regions there is a desire to process raw materials from agricultural production to produce and sell finished products and to improve their livelihoods with sales revenue.
- 99. Lack of knowledge and skills in processing and production of raw materials, lack of understanding of how to sell products in the market, poor management of income, and overspending on fodder and gasoline due to overcrowding.
- 100. One of the biggest challenges they face is the lack of working capital and equipment, but it is important to make intellectual investments together to support the project.

## Recommendations

- 101. Project support for income generation should be differentiated into (i) large businesses of regional and local significance, (ii) medium-sized businesses of significant community importance, and (iii) small businesses of small groups. The requirements for areas other than large businesses should be elaborated.
- 102. The provision of physical and intellectual investment and support to businesses should not be construed as a direct model, but should take into account the time required to see their results.
- 103. Based on existing institutions with potential for further expansion and collaboration, project support will achieve tangible results.
- 104. Project support should be provided in each region to increase the value and use of wasted raw materials, reduce desertification and sand movement, and establish forest strips to protect agricultural land.
- 105. Livestock production is the main source of livelihood in each region, but the number of beneficiaries could increase if the project supports micro-projects that offer other business opportunities.
- 106. Take advantage of the opportunity to increase funding for small projects by introducing and promoting green loans to the soum commercial banks and loans from the Labor and Welfare Department to increase employment.
- 107. Develop a training package for herders to improve their ability to work together and work in teams, and increase the management skills of PUG leaders,
- 108. The PIU should ensure that there is no overlap between other regional projects and programs.
- 109. Incorporate research, findings, and recommendations into the development and updating of soum development plans.

## IX. Appendixes

- 1. Inception report
- 2. Progress report
- 3. Socio-economic report
- 4. Market and income report
- 5. Reflection of the PIU comments
- 6. Four business plans