# Competitiveness of livestock production in Mongolia using Policy Analysis Matrix approach (In case of Bulgan soum Khovd province)

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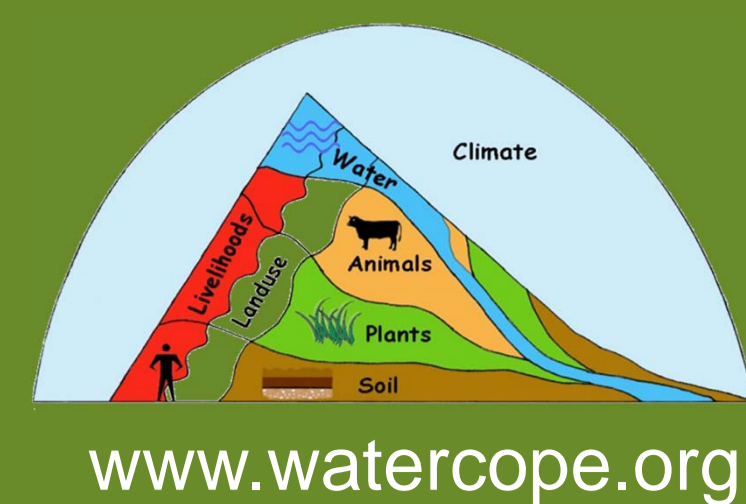
Introduction and Objectives

Mongolia is rich in natural resources like freely available pastureland for herder households (HHH). 45 million livestock actually giving high pressure on pastureland carrying capacity. Objectives of the study:

- To analyze competitiveness of livestock productions in private and social perspectives in the research area

- To recommend policy options to reduce divergence between private and social profits of livestock productions

Figure 1. *Deed Nariin* summer camp, sample HHH milking goats

Results

Local herders intend to increase the number of goats because of the biggest cash income generation over other products. However, pastureland degrades due to grazing habit of goat.

- The highest cash income from cashmere of goat shared 54.3% alone.

- Secondary income generation activity for herders was to sell livestock.

- The average HHH earned about 2.48 million MNT (2.02 thousand USD) from selling livestock products per year.

- Nomadic livestock farming is a complex phenomenon thus, the analysis should focus on core products.

Table 1. Yearly average livestock production per HHH, 2011

№	Products	Goat	Sheep	Cattle	Horse	Camel	Total
1	Herd size (unit)	71	18	10	5	2	104
2	Meat (kg)	194.9	68.8	160.8	25.2	13.2	462.9
3	Milk (l)	583.6	20.9	1,857.3	36.7	3.6	2,502.0
4	Hides (unit)	14	4	1	0	0	19
5	Cashmere (kg)	22.5					22.5
6	Wool (kg)		24.3			6.7	31.0
7	Cattle Hair (kg)			0.0			0.0
8	Hair and Tail (kg)				2.5		2.5
9	Dairy products (kg)		302.8*		33.8	0.8	337.4

* Dairy products that are made by milk of cows, goats and sheep

Table 2. Annual cash income of selling livestock products per HHH, 2011

Livestock products	Mean (000 MNT)	STD (000 MNT)	Min (000 MNT)	Max (000 MNT)	# of HHH who sold the product of 197 HHH
Cashmere	1,345.8	1213.8	0	9425.0	194
Alive livestock	551.6	944.9	0	6865.0	104
Meat	196.9	1041.3	0	10675.2	19
Hides	188.6	181.2	0	2125.9	196
Milk	57.5	211.5	0	2262.5	42
Camel wool	29.1	81.6	0	750.0	77
Sheep wool	20.3	132.0	0	1725.0	25
Horse hair and Tail	2.9	23.9	0	325.0	17
Dairy products	87.9	233.9	0	1830.5	60
Total	**2,480.6**	**4,064.1**	**0**	**35,984.1**	**197**

Materials and Methods

We used Policy Analysis Matrix approach developed by Monke and Pearson (1989). It accounts profitability of product in private and social prices. The data was disaggregated and was collected through questionnaires from 197 randomly selected HHH.

	Revenues	Costs		Profit
		Tradable Inputs (TI)	Domestic Factors (DF)	
Private Prices	Private Revenue (A)	P Cost of TI (B)	P Cost of DF (C)	P Profit (D=A-B-C)
Social Prices	Social Revenue (E)	S Cost of TI (F)	S Cost of DF (G)	S Profit (H=E-F-G)
Diver-gences	I=A-E	J=B-F	K=C-G	L=D-H=I-J-K

Table 3. Policy Analysis Matrix (Monke and Pearson, 1989)

Tradable inputs are inputs that are exported or imported, domestic factors are those that are not tradable on international market.

Conclusions

Although cashmere is the only product that is generating highest cash income, it may be not socially profitable due to its negative impact on grassland.