

# ***The Implementation of Community-based Natural Resource Management principles at Hustai National Park, Mongolia***

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## *Presentation Topics*

- 1. Introduction**
- 2. Research Design**
- 3. Preliminary Results**
- 4. Preliminary Conclusion**

# 1. INTRODUCTION

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## *1.1 Research topic*

The Implementation of Community-based  
Natural Resource Management (CBNRM)  
principles within Buffer Zone Rangelands at  
Hustai National Park, Mongolia



## ***1.2 Community-based Natural Resources Management***

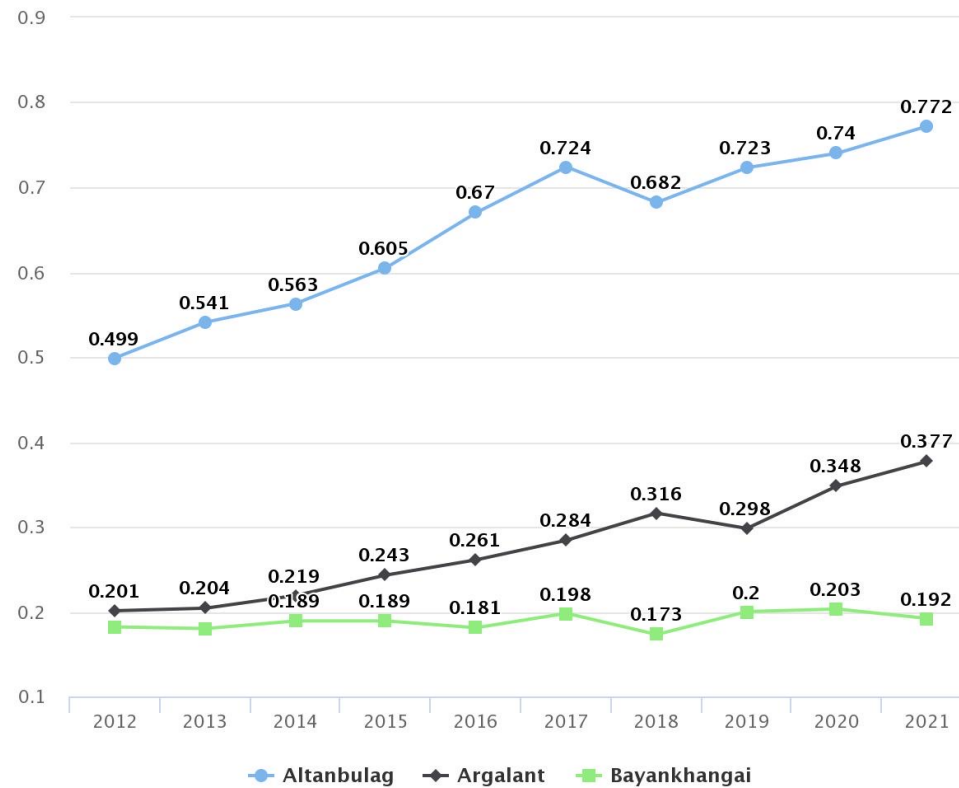
- ❖ Armitage (2005) describes that CBNRM is a mechanism to address both environmental and social-economic goals and to balance the exploitation and conservation of valued ecosystem components.

## *1.2 CBNRM principles*

- ❖ Composed of 8 principles (see Elinor Ostrom)

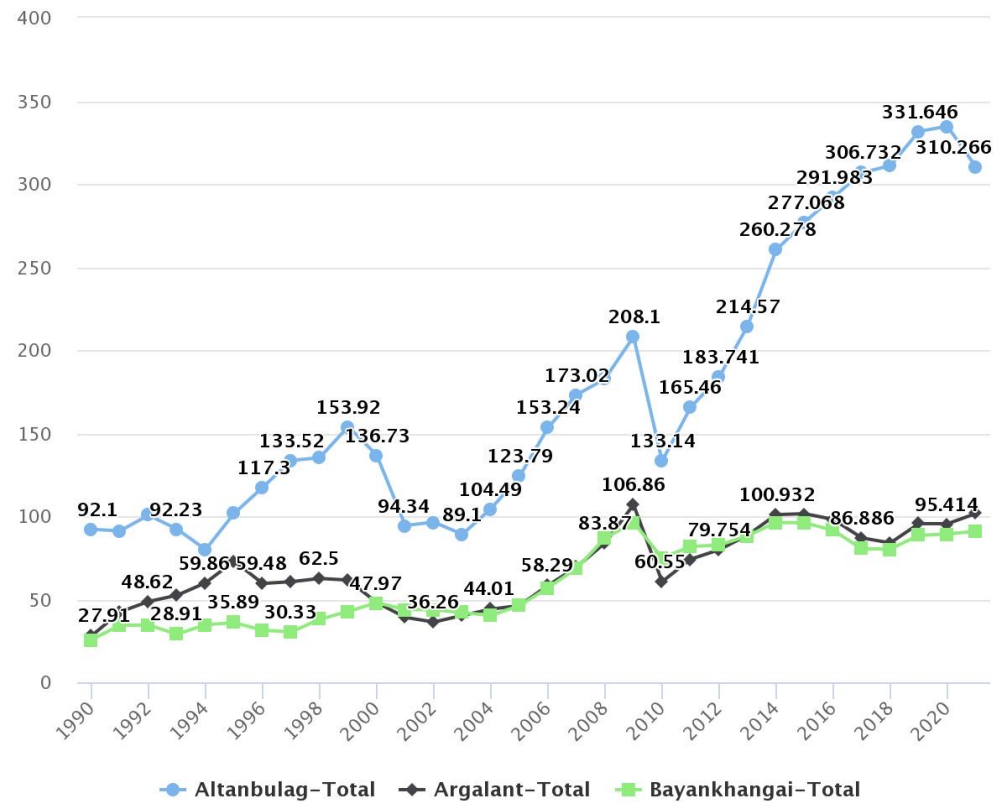
## 1.3 Research problem

Figure 1. The number of herders' households in Argalant, Altanbulag, and Bayankhangai soums (2020)



## 1.3 Research problem

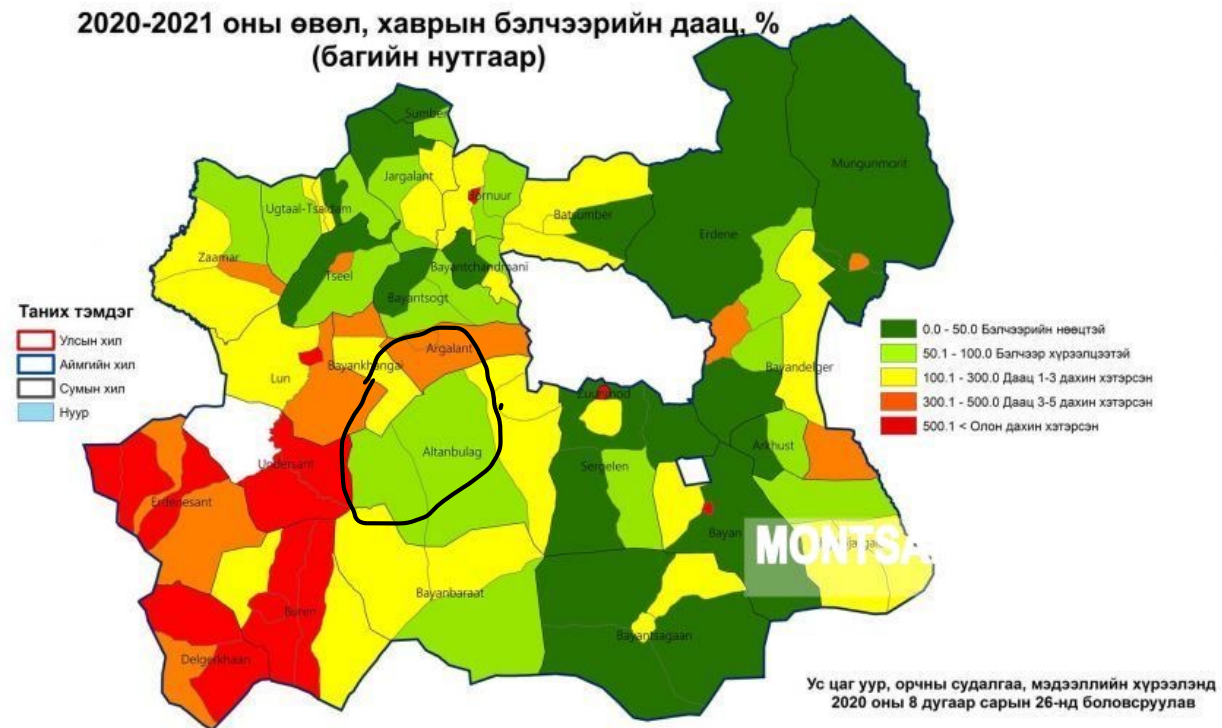
Figure 2. The number of livestock in Argalant, Altanbulag, and Baynkhangai soums (2020)





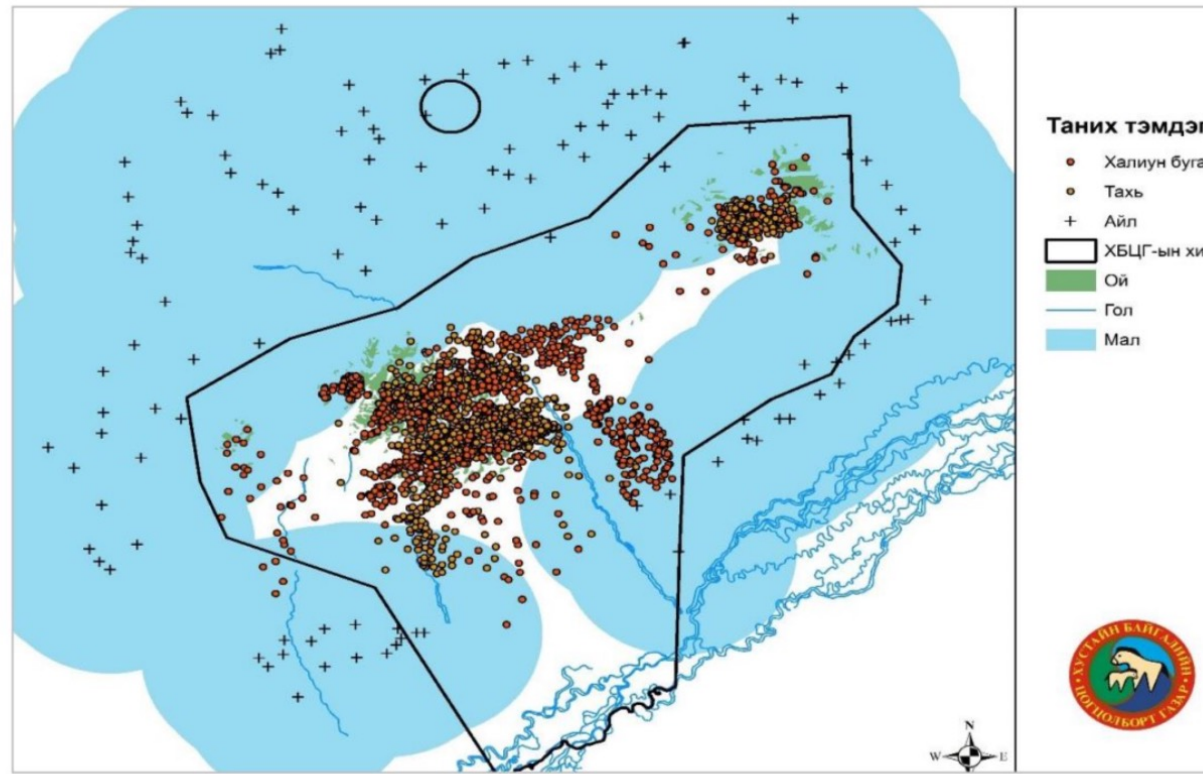
# 1.3 Research problem

Figure 3. Carrying capacity of Buffer Zone rangelands



# 1.3 Research problem

Figure 4. Rangelands experience competition between wildlife and livestock of neighboring herders



## ***1.4 Research question***

My overarching question is:

***How have CBNRM principles been implemented at the HNP?***

Sub questions are:

- 1. How have the CBNRM principles been met at HNP (analyze the presence or absence of each principle)?***
- 2. How have CBNRM principles protected the Buffer Zone rangelands of HNP?***
- 3. How have alternative livelihood improved neighboring herders' livelihood?***
- 4. How may CBNRM principles be used to improve the sustainability of the boundary rangelands of the Buffer Zone as well as improve the livelihoods and sustainability of neighboring herders' communities?***

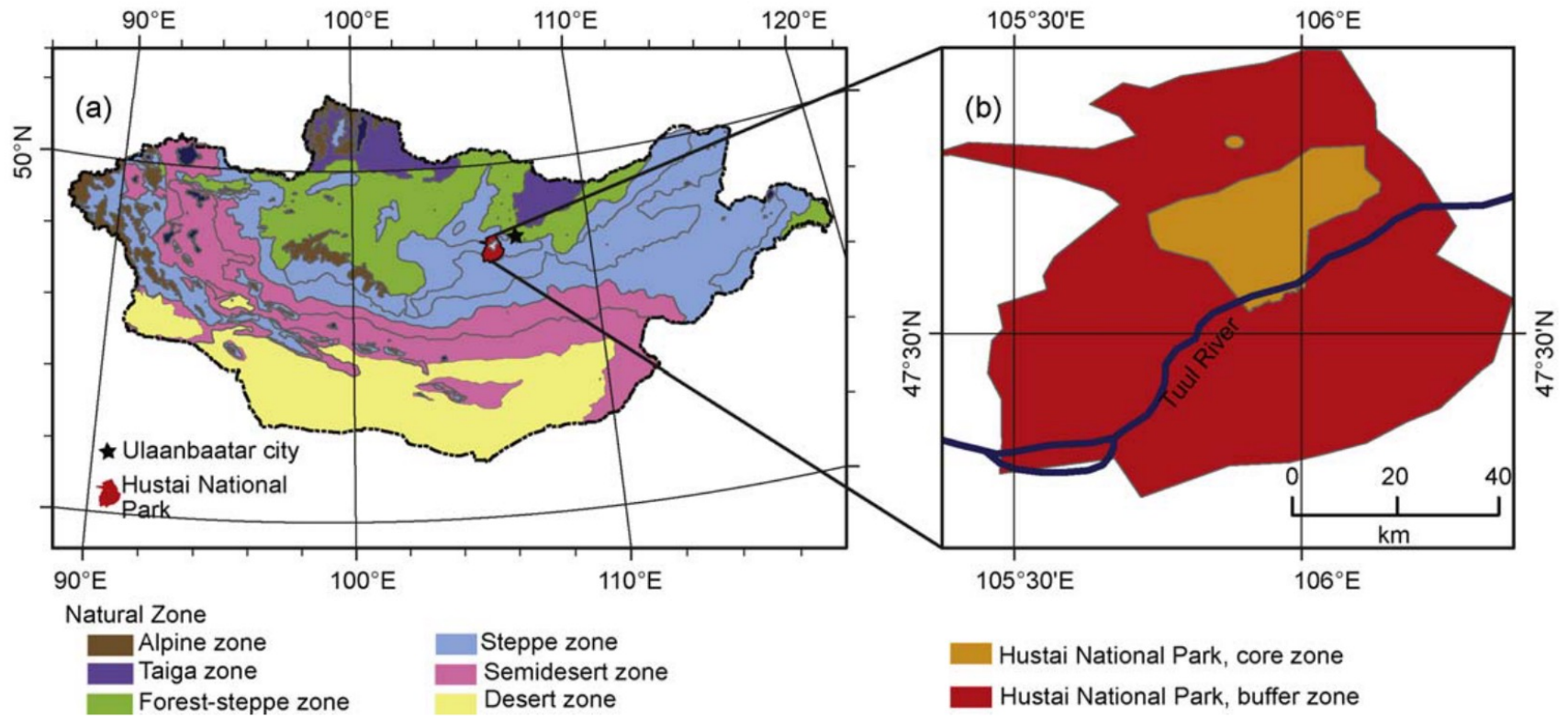
## *2. RESEARCH DESIGN*

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## 2.1 Research site

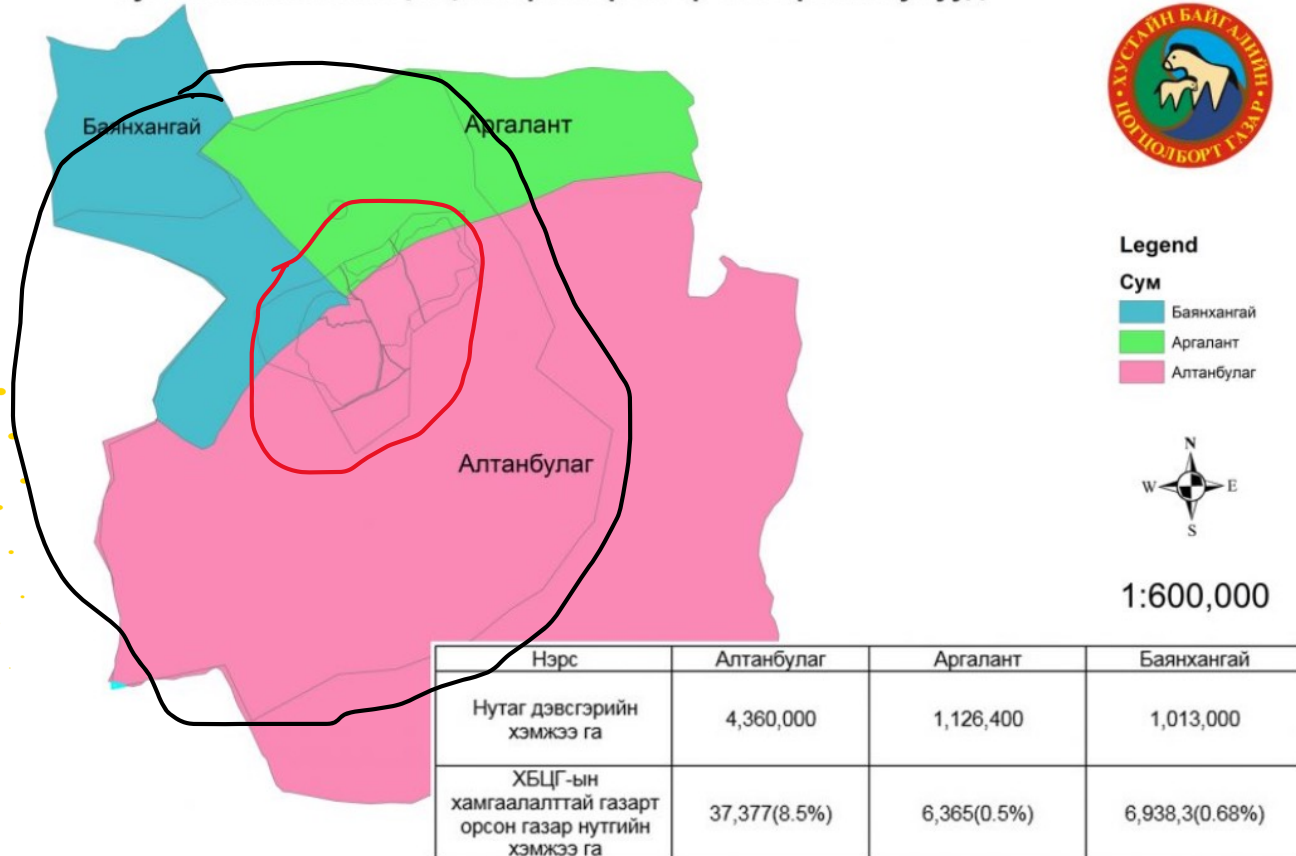
Figure 5. Location of Hustai National Park, Mongolia



## 2.1 Research site

Figure 6. Boundaries of Hustai National Park and its Buffer Zone

Хустайн байгалийн цогцолборт газрын орчны бүсийн сумууд



## ***2.2 Case study***

**I am conducting a case study.**

**How does my study qualify as a case study?**

- ❖ Focuses on How and Why questions;
- ❖ Studying a bounded system, Hustai National Park;
- ❖ No control over the implementation or operation of CBNRM (i.e., no control of contemporary phenomena)

## *2.3 Case selection*

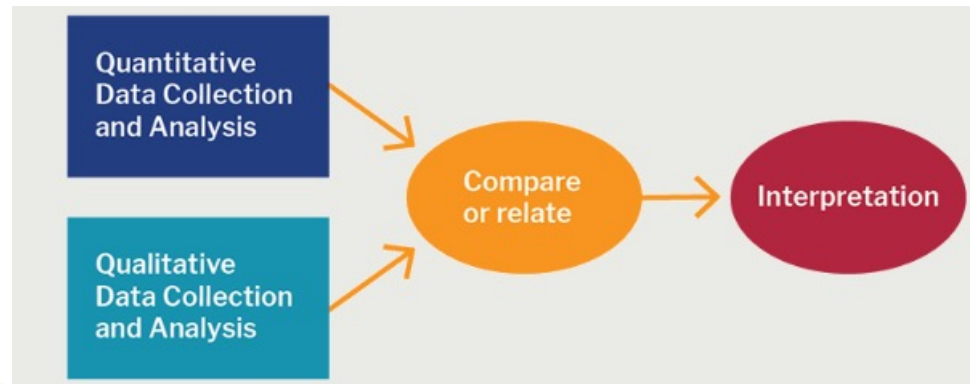
- ❖ The HNP is one of the only places in the world that is attempting to reintroduce and establish a herd of free roaming Przewalski's which is endangered.
- ❖ The HNP is the first and one of protected areas managed by a non-governmental organization (NGO) in Mongolia (HNP, 2011).
- ❖ The HNP does not receive operating funds from the national government of Mongolia.



## 2.4 Mixed methods

- ❖ Mixed methods design
- ❖ The Convergent design

Figure 7. Convergent Parallel Design



Source: Creswell (2018)

## *2.5 Sampling selection*

### **Purposive sampling**

- ❖ The main stakeholders – HNP’s officials, local government officials, and herders from herders’ communities.

### **Number of sampling**

- ❖ Quantitative data collection – 58 participants
- ❖ Qualitative data collection – 40 participants

## ***2.6 Quantitative data collection and analysis procedures***

### **Data collection**

- ❖ Secondary quantitative data
- ❖ Survey questionnaires

### **Analysis**

- ❖ Basic descriptive statistics
- ❖ Statistical Package for the Social Sciences (SPSS)

## ***2.7 Qualitative data collection and analysis procedures***

### **Interviews**

- ❖ HNP officials;
- ❖ Local government officials
- ❖ Herders from herders' communities

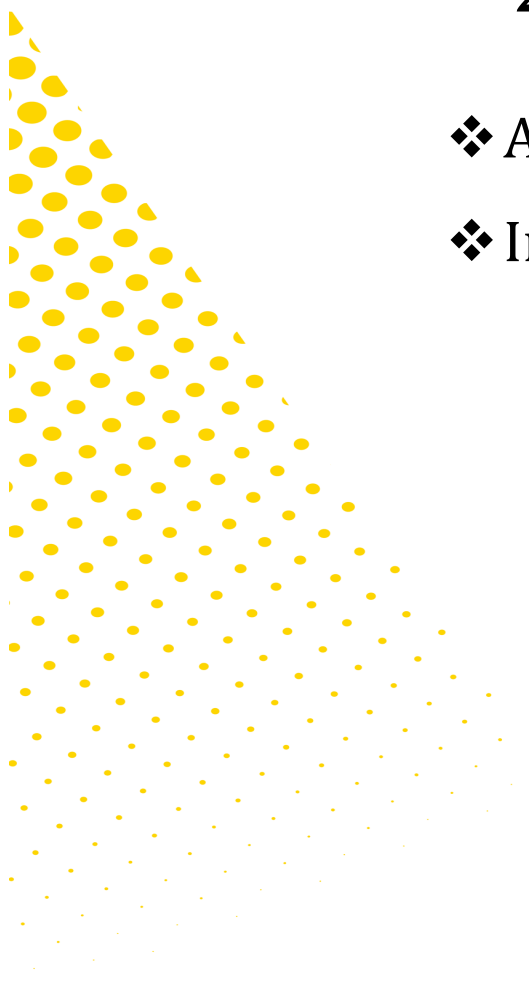
### **Interviews analysis**

- ❖ Inductive reasoning
- ❖ Thematic analysis

### **Document review**

- ❖ Content analysis
- ❖ Narrative summaries

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## *2.8 Integrated data analysis procedures*

- ❖ Analyze quantitative and qualitative data separately
- ❖ Integrate quantitative and qualitative data

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# 3. PRELIMINARY RESULTS

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### 3.1 Principle #1.1: Clear boundaries of user group

Table 1. Crosstabulation of current position and whether or not the permitted herders who are allowed to graze livestock within the Buffer Zone rangelands are clearly defined

Current occupation * Are the permitted herders who are allowed to graze livestock within the Buffer Zone rangelands clearly defined? Crosstabulation					
		Are the permitted herders who are allowed to graze livestock within the Buffer Zone rangelands clearly defined?			Total
		Yes	No	Not sure	
Current occupation	HNP's officials	3(25%)	4(33.3%)	5(41.7%)	12(100%)
	Local government officials	7(31.8%)	6(27.3%)	9(40.9%)	22(100%)
	Herders	14(66.6%)	5(23.8%)	2(9.6%)	21(100%)
Total		24(43.6%)	15(27.1%)	16(29.1%)	55(100%)

### ***3.1 Principle #1.1: Clear boundaries of user group***

#### ***Interview results***

#### ***Permitted herders within the Buffer Zone***

- ❖ Citizen of soums;
- ❖ Herders with either winter or spring camps within the Buffer Zone (mostly winter camps)

#### ***Herders presently grazing livestock within the Buffer Zone***

- ❖ Additional herders

#### ***Reasons for having additional herders***

- ❖ Otor movements
- ❖ Multiple residencies within one herding household
- ❖ Spouse – selection from different soums

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### ***3.1 Principle #1.1: Clear boundaries of user group***

#### ***Interview and document review results***

- ❖ Possible to permit new herder
- ❖ Authority – herders' group, Citizen Representative Khural, and Governor of Soums

#### ***Requirements for new herders***

- ❖ Citizen of soum – winter camps required
- ❖ Local people
- ❖ Less livestock (<200)

### ***3.1 Principle #1.1: Clear boundaries of user group***

#### **Challenges related to permitting new herders**

- ❖ The increased number of herder households;
- ❖ The increased number of livestock;
- ❖ The increased land for the state special needs;
- ❖ The increased activation in crop lands;
- ❖ Otor movement;
- ❖ Transition zone for movement;
- ❖ HNP's land; and
- ❖ The exceeded carrying capacity of rangelands.

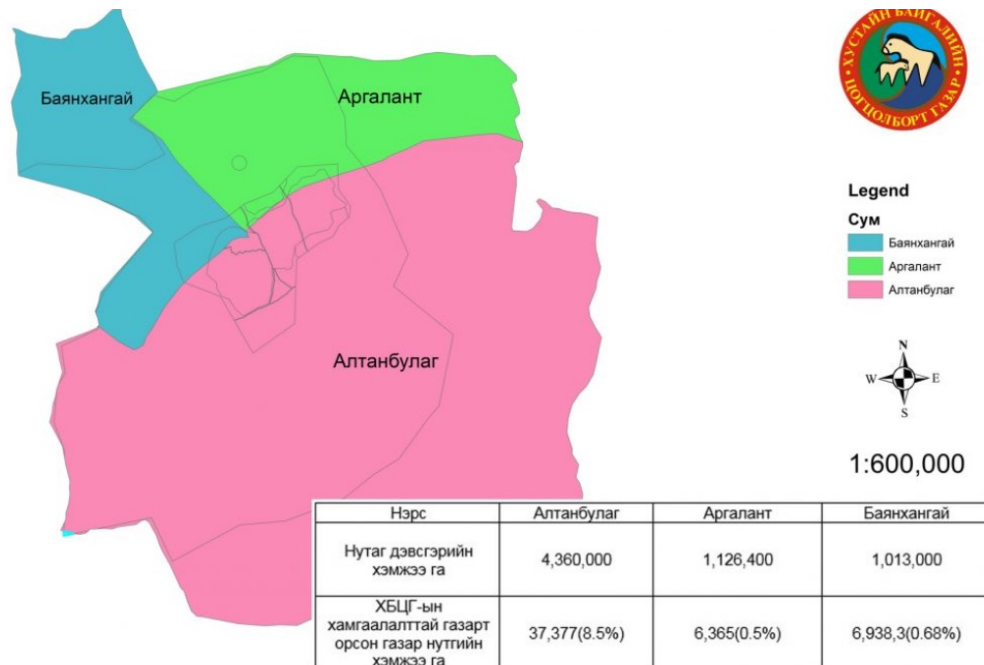
**But, trying to not have new herders.**

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## 3.2 Principle #1.2: Clear boundaries of natural resources

- ❖ The boundary of the Buffer Zone of HNP - Ministerial Decree #261 (2001)
- ❖ Covering more than 349,700 hectares

Figure 8. Location of the Buffer Zone of HNP



## ***3.2 Principle #1.2: Clear boundaries of natural resources***

### ***Questionnaire results***

- ❖ 76.9% of the research participants responded that the boundaries of the Buffer Zone rangelands are clearly identified.
- ❖ More than half of the research participants (61.5%) claimed that they do not know and are not sure about where the boundaries of the Buffer Zone rangelands exist.

### ***Interview results***

- ❖ Research participants have **approximate** understanding of the boundaries of the Buffer Zone rangelands.

## ***3.2 Principle #1.2: Clear boundaries of natural resources***

### ***Interview results***

- ❖ The research participants identified the inside boundary of the Buffer Zone rangelands more than the outside boundary of the Buffer Zone rangelands because the inside boundary of the Buffer Zone **coincides with the boundary of HNP**.
- ❖ It was determined that herders were grazing their livestock in areas where they were not supposed to graze, particularly within the protection zone of HNP **(127 winter camps with approximately 170 herder households)**.

## ***3.2 Principle #1.2: Clear boundaries of natural resources***

### ***Interview results***

#### ***Reasons for entering to the protection zone of HNP***

- ❖ More grass
- ❖ Open water
- ❖ Mostly horses
- ❖ Seasonal – winter and spring

#### ***Resolving methods***

- ❖ Soft ways can be used
- ❖ Take away their livestock to herders' camps

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# 4. *PRELIMINARY CONCLUSION*

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*Thank you for your attention!*



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