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STAKEHOLDER ENGAGEMENT STRATEGY FOR PROTECTED AREAS – A CASE STUDY OF KHUSTAI NATIONAL PARK IN MONGOLIA

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ABSTRACT

Mongolia currently has 99 protected areas and in each of these areas, co-operation is required between stakeholders such as locals, administrators of the protected areas, and decision-makers at all levels. There are problems such as illegal hunting, off-roading and livestock grazing in the protected areas leading to land use arguments between communities, local authorities and administration of protected areas. The aim of this research was to address these problems by investigating stakeholders' collaboration and developing an engagement strategy in the Khustai National Park. The objectives of the research were to identify stakeholders, analyse stakeholders considering their interests and interdependencies, determine needs for improving stakeholder engagement, and designing engagement strategy for the national park. The research utilised both quantitative (survey) and qualitative (interviews) methods. Eleven key stakeholders were identified in four categories including civil society, non-governmental organization, governmental organization and the private sector, using the stakeholder analysis. Herders and locals who are using land as pasture have low influence on decision-making while local government has a high influence based on its mandate to give land to residents, but has little interest in conservation and sustainable land usage in the park buffer zone (designated area surrounding the park). The main conservation issue of the park was identified as rangeland degradation in the buffer zone due to the increasing number of migrating herders who settled in the buffer zone with livestock. Also, most conflicts between locals and the park administration are related to herding livestock in the core zone where wild animals graze. The study also showed that when designing the stakeholder engagement plan for the park, locals' interest, the difference between generations, and building

ownership attitude for migrating herders are important. Based on the information gathered from the findings, an engagement plan for the national park was created.

Key words: conservation, national park, stakeholder analysis, engagement plan

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1. INTRODUCTION

Problem statement

Mongolia currently has 99 protected areas (Ministry of Environment and Tourism 2017). In each of these areas, co-operation is required between stakeholders: local people, communities who live outside the areas' boundaries, administration of the protected areas, and decision-makers at all levels. According to the Recommendations and Regulations for Developing Protected Area Management Plan (Administration Board of Protected Areas 2016), the protected area management plan is the most important strategy document that addresses stakeholder participation in the nature conservation of each protected area.

There are 33 protected areas with developed management plans. Among those is Khustai National Park, for which the first management plan in Mongolia was created in 1994 (Administration Board of Protected Areas 2017). The National Park was registered as a biosphere reserve by UNESCO in 2002 and became a member of the IUCN in 2007. Since 1992 it has been successfully implementing an international project on the reintroduction of the endemic Przewalski horse (*Equus przewalskii*) (Khustai National Park Trust 2015).

The administration of Khustai has experience in working with a wide range of institutions in nature conservation. However, cases of illegal hunting in the park area and buffer zone have been increasing in recent years, and there are still some unresolved land use arguments between communities, local authorities and the national park administration (Khustai National Park Trust 2017).

A stakeholder engagement or involvement plan should be considered a part of the management plan of a protected area. Even so, stakeholder engagement is not well planned in those 33 management plans for protected areas (Administration Board of Protected Areas 2017). There is much conflict between resource users and decision-makers in land use of protected areas. This includes issues such as mineral exploration, logging, cultivation, grazing of animals, and collecting of medical herbs and food plants.

The livelihood of local herders and people who live in the buffer zone of protected areas is related to, or depends upon, decisions made by the administration of the protected area, and by the local and national governments. In addition, how are locals engaged in decision-making, and what is the scope of their participation in natural resource management processes? What are the main conflicts between national park administration and other stakeholders concerning land use and nature conservation? What are the benefits for the locals, institutes, communities and national park administration from engagement? What are the perceptions of stakeholders for participation and engagement management for decision-making? I would like to answer those questions and try to establish a stakeholder engagement strategy for Khustai National Park, which has not fully developed one.

Goal and objectives

The goal of this study is to establish and develop a stakeholder engagement strategy for nature conservation in the targeted national park. To achieve this goal, I have defined the following objectives:

- To study concepts and the current situation relating to stakeholder engagement and participatory approaches in protected areas at the national and international level,
- To identify and analyse relevant stakeholders and their interdependencies, and determine forms of their participation in the natural conservation of the national park,
- To analyse current participation, determine needs for improving stakeholder engagement, and the interests of the participants in being involved in decision-making processes and management in the natural conservation of the national park,
- To design a stakeholder engagement strategy, using tools described in the protected area management literature and based on quantitative and qualitative data.

Importance of the research

On the basis of the Sustainable Development Goals released by the General Assembly of the United Nations, Mongolia has created its *Sustainable Development Concept – 2030* (Department of Sustainable Development Policy 2016). This states that principles of locals and community engagement should be ensured in all levels of decision-making for environmentally sustainable development. Moreover, the Mongolian government is considering joining the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Ministry of Environment and Tourism 2015).

The Administration Board of Protected Areas, which is an agency of the Ministry of Environment and Tourism, has asserted that it is important to create conditions for the broad participation of local people, communities, governmental and non-governmental organizations, supporting their contribution to nature conservation of protected areas (Administration Board of Protected Areas 2016). Also, it has stated the importance of involving local people and other stakeholders and considering equality of participation in developing and implementing management plans (Administration Board of Protected Areas 2016).

The results of the research will be a model for the design of engagement strategies that can contribute towards better co-operation between stakeholders in protected area management and ensure the involvement of locals in the decision-making process in environmental governance. While the project centres on Khustai National Park, the model can serve as an example for management plans for other protected areas in Mongolia.

2. LITERATURE REVIEW

Conservation and protected areas

Conservation involves a wide range of activities, which include the protection and restoring of biodiversity (Berkes 2007). The environment is a complex adaptive system which contains a large number of ecological systems and their subsystems. Hence, conservation is a complex system-related problem. Theory explains that the levels or systems and subsystems are connected, but each level or system and subsystem needs diverse concepts and principles to understand and support it. The establishment of protected areas started some centuries ago when some areas and natural resources were set aside by royal decree (Jongman 1995). For example, in Europe, hunting areas were protected for the rich and powerful for a thousand years. Also, the protection of special places occurs in different forms in many local traditions and cultures. Examples include *tapu* areas in the Pacific, sacred groves in Africa, and holy mountains and places in Mongolia (Samya 2010).

Over the past century, national parks controlled by central governments have been one of the main means of conservation. This usually requires state ownership and protection of natural resources by government. This idea has come to monopolize conservation policy in the world (Berkes 2007). In the United States, the Yellowstone area was designated by law as a national park in 1872 and became a model for other parks (Jongman 1995). Interestingly, already in 1778 the Bogdkhan mountain was registered as a strictly protected area by the Mongolian kingdom of Bogdkhaan, the first time in history of protected areas in Mongolia (Samya 2010). It is therefore sometimes considered the first national park in the world.

In Mongolia, during the socialist period (1921–1990) traditional worship of the sky and nature was limited and a modern conceptualisation of protected areas was established (Samya 2010). The current Protected Area Administration was established in 1988, based on the Bogdkhan Strictly Protected Area by the order of the Minister of Nature and Environment Protection of the Republic of Mongolia. Since that time the number of protected areas has increased. In 1993 Mongolia joined the Convention on Biological Diversity, which emphasized the importance of conserving areas for protection, ensuring the balance and sustainability of ecological systems at national and international levels (Administration Board of Protected Areas 2017).

The Protected Areas Act, 1994, was enacted by the Mongolian government (Government of Mongolia 1995). As defined by this Act, a protected area is a place which is significant for nature conservation and includes different ecological and natural zones, a unique landscape or ecosystem, and provides habitat for rare and endangered species. Also, in the Act, protected areas are categorized in four levels as Strictly Protected Areas, National Parks, Nature Reserves and Historically Important Areas. Now some 99 areas are protected as defined by these four categories. They cover 27.2 million hectares, which is 17.4 percent of the total territory of Mongolia (Ministry of Environment and Tourism 2017).

Stakeholder engagement and participation in environmental management

For the past several decades, “stakeholder engagement” has been a prominent part of the biodiversity conservation toolkit of organizations and governments which deal with a wide range of environmental issues (Sterling et al. 2017). Environmental problems are complex and multiscale, and they affect various institutions. Hence, transparent decision-making is needed that is flexible for changing situations and includes a variety of knowledge and values. To achieve this, stakeholder participation approaches are increasing in conservation activities as well in national and international environmental policy. There is a need to understand stakeholders and their engagement at the decision-making level (Reed et al. 2009).

Basic typologies of participation were developed in the late 1960s, such as the ‘ladder of participation’ (Arnstein 1969). This described a continuum of increasing stakeholder involvement, ranging from passive to active engagement. Arnstein (1969) suggested different degrees or levels of participation on different rungs of the ladder which, from top down, are:

- | | | |
|-------------------|---|--|
| - Citizen control | } | Active participation or degrees of citizen power |
| - Delegated power | | |
| - Partnership | | |
| - Placation | } | Symbolic participation or degrees of tokenism |
| - Consultation | | |
| - Informing | | |
| - Therapy | } | Non-participation or no-power |
| - Manipulation | | |

Dovers et al. (2015) mention that all these levels of engagement can be found in protected area management. An example of active participation is community co-management, whereby some decision-making positions are held by community representatives in the administration board of the protected area. They assert that such participation can have a considerable role in setting strategic priorities in protected area governance.

There have been numerous efforts to categorise the different approaches to stakeholder analyses (Jepsen & Eskerod 2009; Reed 2008). Most significant is the differentiation between *normative* and *pragmatic* participation (Thomas 1993; Jepsen & Eskerod 2009). Normative participation focuses on process, suggesting democratic rights of the public in decision-making, whereas pragmatic participation focuses on the end result.

In the context of environmental management and governance, it is claimed that normative participation increases the perception that environmental decisions are holistic, and values and needs are diversified (Reed 2008). Rowe & Frewer (2000) concentrate on participation as a means of communication between participants and organizers. They define participation types of public engagement by the route of communication flow between institutions. Moreover, Sterling (2017) asserts that effective communication is important for the conservation activities and it influences trust-building among stakeholders.

Turning to the pragmatic side, Reed (2008) mentions that it leads to quality and endurance of environmental decisions made through stakeholders' collaboration and engagement. Development of common ground and trust reduces arguments between stakeholders and stakeholder ownership of implementation may increase. It can have potential for the reduction of implementation costs and lead to better conservation outcomes (Sterling 2017). Also, a participatory process should lead to higher quality decisions which are based on research and more complete information (Beierle 2002). Pragmatic claims assert that participation allows better adaptation to local environmental conditions and social-cultural contexts (Reed 2008).

Additionally, according to pragmatic claims, instrumental stakeholder analysis is more pragmatic and largely a key to understanding how organizations can identify and manage the behaviour of stakeholders to achieve desired outcomes. Hence instrumental participation approaches are required for understanding and influencing stakeholders in diverse ways (Reed 2008).

Moreover, Okali et al. (1994), and Minchener (1998) pointed to objective participation typologies. They distinguished between *research-driven* or *planner-centred* participation, which points to outcomes, and *development-driven* or *people-centred* participation, which empowers stakeholders to determine their own needs. Instead of focusing on the objectives of participation, Lynam et al. (2007) distinguish between *informing*, *co-learning* and *co-management* methods through collaboration. Furthermore, Tippett et al. (2007) identify different methods of the engagement process, such as informing, designing active engagement processes, consulting, delivering implementation of management plans, monitoring and learning from the effectiveness of participatory practice.

The increasing emphasis on stakeholder participation is a way to solve problems relating to sustainable land use and conservation of national parks, which often contain endangered species, specific and fragile ecosystems, considerable biodiversity and world heritage properties (Dovers et al. 2015). In the context of Mongolia, Ganzorig et al. (2017) have noted that involving local people who are using resources in the decision-making process can improve the governance of protected areas. Also, the Khustai National Park Trust (2017) has suggested that good cooperation and communication between locals and administration of the national park is a way to conserve the protected area.

Stakeholder analyses and engagement strategies for protected areas

2.1.1 Stakeholder analyses

Stakeholder engagement and public participation in nature conservation is a means for tackling such issues as inappropriate land use and unsustainable natural resource management of protected areas (Norov 2013). Strong participatory management, with collaboration between protected area administration staff and other stakeholders, such as local herders and communities, resource users, non-governmental organizations, and local governments, can thus be an important tool to implement nature conservation actions successfully and sustainably (Dovers et al. 2015).

The importance of stakeholders has been recognized by Freeman (1999), who defines them as those who are affected by decisions of decision makers. Stakeholder analysis is a process that is used in the identification of individuals, groups and institutions who are affected by or can affect parts of the social and natural aspects. It is then used to prioritize and plan for involvement the various stakeholders in the decision-making (Reed et al. 2009).

The ELD Initiative (2015) further notes that stakeholder analysis is an essential tool in the planning stage of the project. It can help to involve and understand relevant stakeholders who have a stake in the social and natural system affected by the decision or action by analysing their claims and inter-relationships with each other. So, stakeholder analysis is becoming more popular in a wide range of organizations in many different fields. It is used as an engagement tool for the private sector, government and non-governmental organizations (Friedman & Miles 2006).

Several methods are used to analyse stakeholders, for example *focus groups*, *semi-structured interviews*, and *snow-ball sampling* (Reed et al. 2009). A focus group is a small-group brainstorming session where stakeholders, their interests, influence and other characteristics are discussed. This method is adaptable, sometimes making it possible to reach a group consensus, and is useful for creating data on complex issues which need discussion to increase understanding. Semi-structured interviews with a cross-section of stakeholders to check focus group data can give a more in-depth understanding of stakeholder relationships. The snow-ball sampling method is useful for interviewing individuals from the stakeholder categories and identifying new ones. It yields in-depth information and saves time (Reed et al. 2009).

For analysing stakeholders' interest and power in participation, an *interest-influence matrix* is a very useful device (Reed et al. 2009; ELD Initiative 2015). This method is aimed at placing stakeholders in a matrix according to their interests and influence in the participation. Reed et al. (2009) mentions that determining and understanding relationships between stakeholders is important for engagement activities. It helps to identify stakeholder perceptions and values and assess approaches as well as to analyse conflicts between stakeholders. Various methods are used for determining interdependencies and relationships between stakeholders, including *Venn diagrams* and *actor-linkage matrices* (Reed et al. 2009). A Venn diagram can be used to visualise different stakeholders' relative influence and interest. The size of the circle represents the relative influence of stakeholders, and circle overlaps reveal cross-interests of different groups (Reed et al. 2009). Actor-linkage matrices consist of a table or matrix with a list of stakeholders and description of their interrelations and participation purposes based on interest.

2.1.2 Stakeholder engagement plans

The ELD Initiative (2015) states that a stakeholder engagement plan is a tool to work with a wide range of stakeholders effectively in conservation and land use. Conservation and sustainable natural resource usage are complex issues. They include both biophysical and social aspects, influencing different stakeholders at different scales.

Dovers et al. (2015) outline four basic steps that are necessary for designing an engagement strategy for protected area management. Those are identifying the stakeholders who will be involved,

determining the purpose of engagement, defining the form of engagement or participation, and deciding on the frequency of engagement activities (Fig. 1).

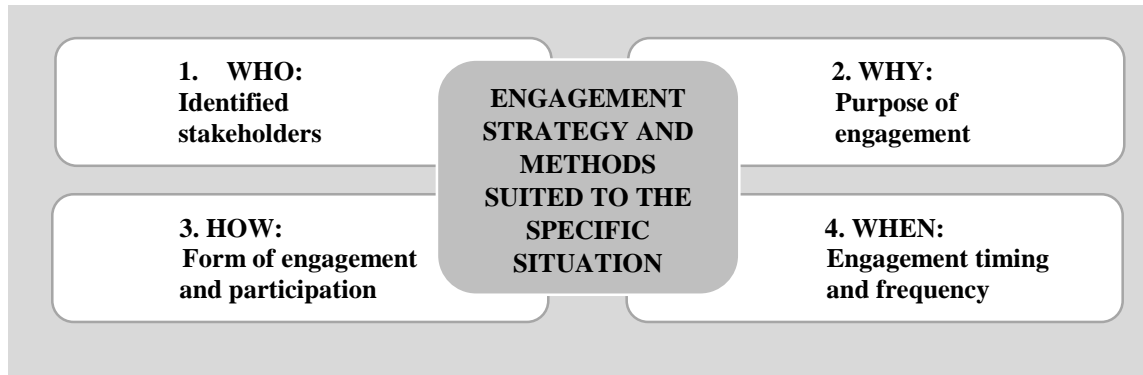


Figure 1. A general framework to inform design of an engagement strategy. (Source: Dovers et al. 2015).

The ELD Initiative (2015) points out that stakeholder engagement planning basically includes engagement goals, stakeholder identification, and categorization, selection of stakeholders and engagement process design or activities planning. They explain the key steps which should be included in a well-designed stakeholder engagement plan. These steps include:

- Describe the context,
- Systematically identify and analyse the interest of stakeholders,
- Set engagement objectives and/ or expected outcomes,
- Identify engagement techniques or activities,
- Consider risks and identify indicators to monitor progress,
- Ensure engagement activities are appropriately resourced and integrated with project management.

A well-designed stakeholder engagement plan helps to achieve effective organizing and implementation. It can be a compass for engagement activities in a good engagement process (ELD Initiative 2015).

3. STUDY AREA AND METHODS

Study area description

The study area of Khustai National Park is located at 105°23' to 105°37' E and 47°35' to 47°52' N in the central region of Mongolia. It lies at the boundaries of the three *soums*¹ Altanbulag, Argalant and Bayankhangai of Tuv province, around 100 km to the west of the capital city Ulaanbaatar. The national park covers 50,600 ha. It extends from north to south for 26 kilometres, and west to east

¹ *Soum* - administrative unit, village

for 34 kilometres. The national park was established in 1992 for the reintroduction of wild horses. In 1993 Khustai was registered in protected area Category 3 as a nature reserve, and in 1998 its category was changed to 2 and it became a national park (Khustai National Park Trust 2015). The territory of the national park is characterized by diverse natural zones. In the southern part of the park, the large river Tuul flows. The valley of the river is bordered by steppe and forest steppe zones which cover most of the area. There are sandy hills in the north of the park (Khustai National Park Trust 2017). Figure 2 shows the location of the Khustai National Park and its buffer zone.

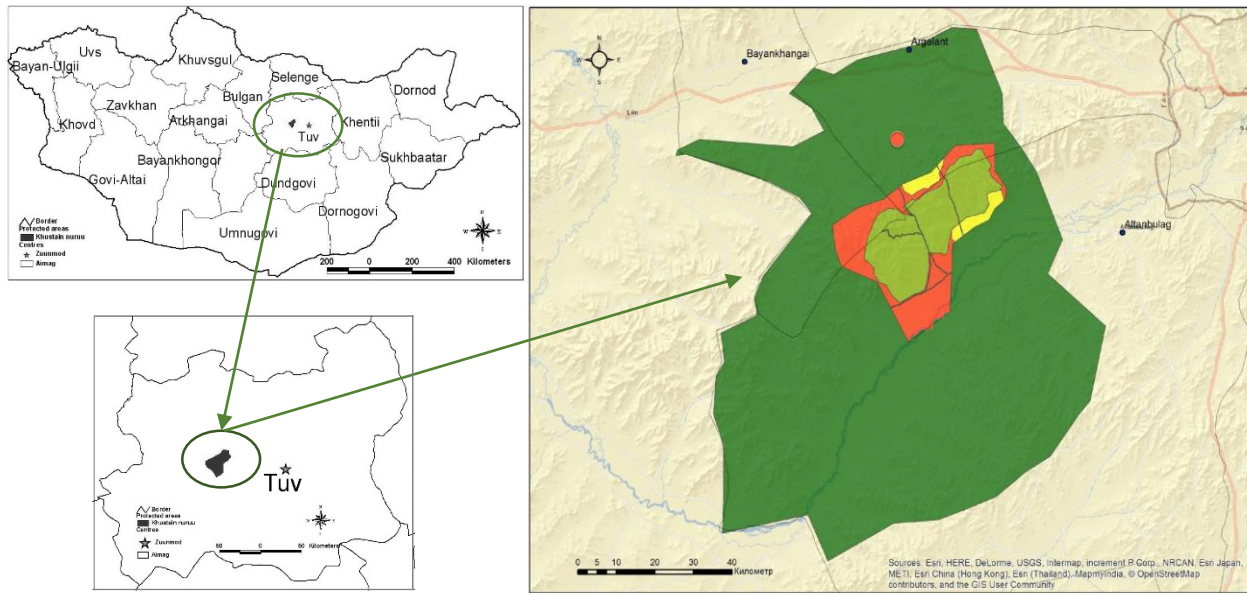


Figure 2. Map of Mongolia (top left), map of Tuv province (lower left), map of Khustai National Park (right). Dark green shows the buffer zone, which surrounds the park territory itself. Red colour shows tourism zone, yellow the limited use zone, and light green the core zone. (Source: Khustai National Park Trust 2015).

3.1.1 The buffer zone and buffer zone council

The buffer zone around the protected area itself was established in 2001 in accordance with the National Policy on Buffer Zone of Protected Areas and it helps to minimize and prevent potential impacts to the park ecosystem and to help and improve the livelihood of locals. It covers 349.7 thousand hectares of three *soums* of Tuv province, Altanbulag, Argalant and Bayankhangai.

In accordance with the Law on Buffer Zones, the Buffer Zone Council of Khustai National Park was established in each of the three *soums* in 2004. It consists of seven to nine representatives, including park administrations, local administrations and herders.

Due to the need for close collaboration in the buffer zone, the administration of Khustai initiated a Buffer Zone Integrated Council which consists of the Buffer Zone Committee of each of the three *soums* as well as the Khustai Centre. The Buffer Zone Integrated Council has 25 representatives, consisting of four park administration staffs, fifteen herders and six local administration staffs.

They have created their own procedural rules for the Buffer Zone Integrated Council. Table 1 gives some information about the three *soums* in the buffer zone. From the table, it is evident that a significant portion of about 40 to 50% of the land is in the buffer zone.

Table 1. Information about the three *soums* in the buffer zone of Khustai National Park. (Source: Khustai National Park Trust 2015).

Categories	Altanbulag	Argalant	Bayankhangai
Total territory (km ²)	4360	1127	1013
Territory of buffer zone (km ²)	2150	778	419
Population	3068	2077	1468
Number of families	875	486	446
Number of herder families	638	234	213
Number of livestock	208000	1069000	964000
Crop land (hectares)	1230	15121	8678

3.1.2 Management of Khustai National Park

Between 1998 and 2003 Mongolia’s Association of Nature and Environment administered the park and was responsible for park management. It was the first time in Mongolia an NGO took the responsibility for the administration of a protected area (Khustai National Park Trust 2017). In August 2003 the Khustai Centre NGO was established by a memorandum between the Ministry of Environment of Mongolia, Foundation for the Preservation and Protection of the Przewalski Horse, and the Buffer Zone Council of Khustai National Park. Since 2003 the NGO has administered the national park, based on an agreement between it and the Mongolian government (see Fig. 3 about management structure of the park). The period of the agreement is five years.

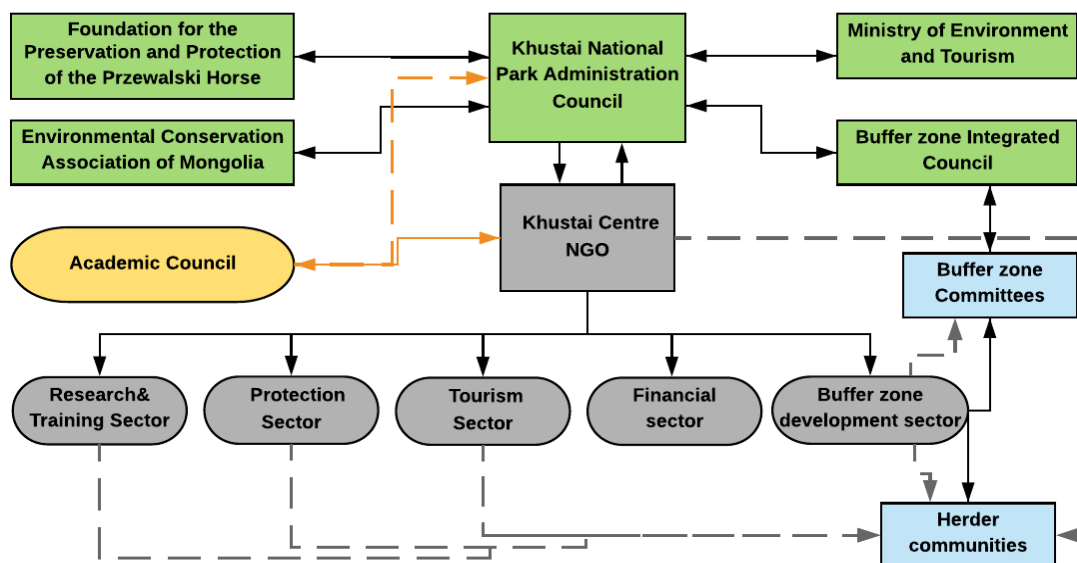


Figure 3. Governance and management structure of Khustai National Park. (Source: Khustai National Park Trust 2015)

The administration of the national park creates a management plan for every five years related to natural processes, ecosystem dynamics, biodiversity conservation and social and economic aspects and development of the buffer zone area of Khustai National Park, based on monitoring research. The administration has evaluated the result of the management plan for the period 2000–2015, using the METT (Management Effectiveness Tracking Tool) methodology (Dudley et al. 2007) for the first time in Mongolia. The focus of the evaluation was on stakeholder engagement, and it involved administrative staff, herders and locals from the three *soums* in the buffer zone (Khustai National Park Trust 2015).

Study methods

In this study, I used both quantitative and qualitative methods. A questionnaire was used for obtaining information from locals who are key participants in nature conservation in the national park. The second set of data was qualitative interviews, which included open-ended questions for obtaining in-depth information from selected stakeholders about their experiences, current situation, and expectations of the participatory approach.

Using such a mixed-methodology approach makes it possible to use diverse ways of working with and analysing research data. Both methods have particular strengths and limitations, so the mixed method can be effective in research in order to compensate for their mutual and overlapping weaknesses (Kelle 2006). A quantitative approach helps in generalising the findings to a wider population, generates useful statistical results and can be completed quickly (Braun & Clark 2013). In contrast, qualitative methodology seeks to understand and interpret more local meanings or exploring respondents' deeper understanding of ideas. It generates rich data and a wide range of descriptions.

3.1.3 Data collection

The interviewing and questionnaire data collection was carried out by NGO staff working at the Environmental Research Centre, where I work as a volunteer. There is close co-operation between the Environmental Research Centre NGO and my own workplace – the School of Agroecology and Business, Mongolian University of Life Sciences, in Darkhan-Uul Province.

The fieldwork took place in mid-July. Before they started the main data collection, the research assistants did some pre-tests of both the questionnaire form and interview questions. This helped the interview co-ordinator and questionnaire research assistants to become familiar with the research questions and general concept of the study. Also, the pre-test contributed some ideas to making research questions clearer for respondents.

For the questionnaire, some 45 locals were contacted, based on gender balance and role of participation in decision-making. This included staff of the national park, herders, and locals without livestock who live in the buffer zone of the park. The questionnaire consisted of four sections, with 24 closed questions which related to the background concepts of the research. Apart from demographic information, the questions of the questionnaire focused on topics such as the state of collaboration between the protected area administration and locals, stakeholder engagement, conflicts between stakeholders, expectations from engagement, and other suggestions that would be of value for designing a stakeholder engagement strategy model for Khustai National

Park. These questions were formulated as statements with which the respondents could indicate their level of agreement, using a five-level Likert scale (see Appendix 1).

For the interviews, eight stakeholders were contacted; five administration staff of the park and three locals who live in the buffer zone. Some 21 questions were on the list for administration staff (see Appendix 2), but 18 questions for the local inhabitants (see Appendix 3). The interviews with the latter served mainly to make the answers to the questionnaire questions more complete. The duration of each interview was 40–120 minutes. All interviews were audio-recorded. Detailed field notes were also written by a research assistant during all interviews (see Fig. 4). They described, for example, both the respondent's and interviewer's self-presentation and voice, body language and facial expressions, manner of asking and answering questions, and the general atmosphere of the interview and the surroundings.



Figure 4. Pictures show data collection in the field. Questionnaire survey of a local herder woman (left); interview with park administration staff (right) (Photos: Binderya. O, 13 July 2018).

3.1.4 Data analysis

The questionnaire data were transferred from paper to a computer database and prepared for analysis. As these data were numerical, they can be analysed by statistical techniques (Braun & Clark 2013). For this purpose, Microsoft Excel and the statistical program JMP were used.

The interview audio files were transcribed by myself, using orthographic transcription. Such transcription focuses on the exact transcribing of spoken words and other sounds in recorded data (Braun & Clark 2013). It aims to record not only what the respondent said, but how he or she said it. To make the transcription more exact, I used the field notes written by the research assistants. The method for analysing the interviews was thematic analysis (Braun & Clark 2013), which is a method for identifying themes and patterns of meaning in the dataset, in connection to the study questions. I followed seven stages, as suggested by Braun & Clark (2013). Summarized results of the interviews were incorporated into the engagement strategy model of the national park.

4. RESULTS

Local inhabitants

Table 2 shows background information about the survey respondents, including occupation, age, education and the number of years they had lived in the buffer zone of the Khustai National Park. Of all the survey respondents, 36 were herders, four national park staff who resided locally, and five locals who were engaged in tourism activities, handicrafts, and household greenhouse farming. Regarding gender, 24 (53%) were female and 21 (47%) were male. Twenty respondents had lived in the buffer zone for more than 20 years. Another eight respondents had lived in this area from 15 to 20 years. Most survey respondents had vocational education and nine respondents have a bachelor's degree. Seven had a lower level of education. Three locals including a herder, a ranger and a head of the herder community were interviewed.

Table 2. Background information of survey respondents and local interviewees.

Survey respondents							
Occupation	No	Age	No	Education	No	Years of living in buffer zone	No
Herder	36	18–25 years	5	Bachelor's degree	9	1–5	4
Staff ² locally resided	4	26–36 years	11	2 years of college degree	2	5–10	9
Local without livestock	5	37–47 years	10	Vocational training	27	10–15	4
		48–57 years	14	Secondary school	6	15–20	8
		58–68 years	5	Elementary school	1	> 20	20
<i>Total</i>	<i>45</i>	<i>Total</i>	<i>45</i>	<i>Total</i>	<i>45</i>	<i>Total</i>	<i>45</i>
Interviewees							
Head of herder community	Manage activities for a herder community						F
Ranger	Conserving the park wildlife and nature						M
Herder	Using natural resources, conserving nature						F

4.1.1 State of collaboration between protected area administration and locals

The first section of the research was focused on the current state of collaboration between protected area administration and locals in the national park. It included the following statements, in questions 1 to 8 in the questionnaire (See Appendix 1):

- 1) Living close to a protected area is good for the livelihood of my family and me.
- 2) My family and I always follow all the regulations and recommendations given by the national park administration.
- 3) My family and I participate in consultative meetings to express our ideas about regulations and recommendations developed by the national park administration.
- 4) It is clear how my views are considered in decision-making by the national park administration.

² Staff – a person who works in/for the national park.

- 5) The national park administration listens to the views of locals and herders when developing the management plan.
- 6) The national park administration develops the management plan based on mutual understanding between stakeholders.
- 7) The protected area administration regularly and openly presents their action plan for cooperation.
- 8) The current action plan for co-operation is clear and understandable.

Figure 5 presents responses from communities regarding how they collaborate with national park administration. In question 1, more than half, or 52%, of the respondents said living in the buffer zone supports their livelihood in some way. Interestingly, in question 2, 78% or 35 out of 45 mentioned that they followed all the regulations and recommendations given by the national park. On the other hand, in question 5 more than half or 58% of the respondents agreed that the park administration considered the views of locals when they made the management plan of the protected area.

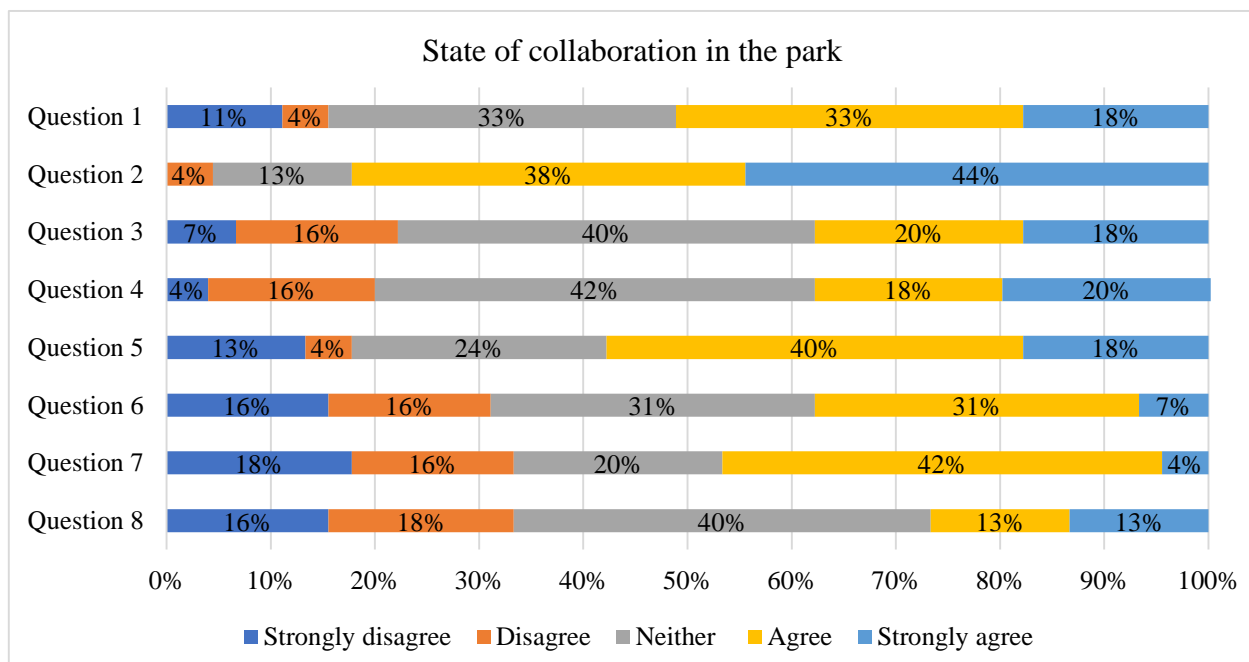


Figure 5. Answers to questions about current collaboration in the national park.

4.1.2 Stakeholder engagement strategy

The second section of the survey was focused on how the respondents would like to see stakeholder engagement in the national park. It included the statements below, in questions nine to twelve in the questionnaire (See Appendix 1):

- 9) Locals should play a significant role in the stakeholder engagement plan, which is part of the management plan of the protected area.

- 10) The administration of the protected area should play a main role in the stakeholder engagement plan which is part of the management plan of the protected area.
- 11) Locals and protected area administration should collaborate on conservation of nature and usage of natural resources.
- 12) The national park administration needs to improve its co-operation with herders and local communities in order to ensure environmental protection and sustainable use of natural resources.

The most common responses were ‘agree’ and ‘strongly agree’ (see Fig. 6). The respondents thus clearly thought that both locals and the administration of the protected area should play a significant role in developing and enacting the stakeholder engagement plan. Moreover, 58% of the respondents strongly agreed with the statement that locals and the protected area administration should collaborate in park management. These findings show that there is a potential to involve locals in the management of the park for conservation and sustainable natural resource usage in the buffer zone of the park. Moreover, in question 12 most or 66% of respondents agreed or strongly agreed on the need to improve co-operation with herders, local communities and the park administration in order to ensure environmental protection and sustainable use of natural resources.

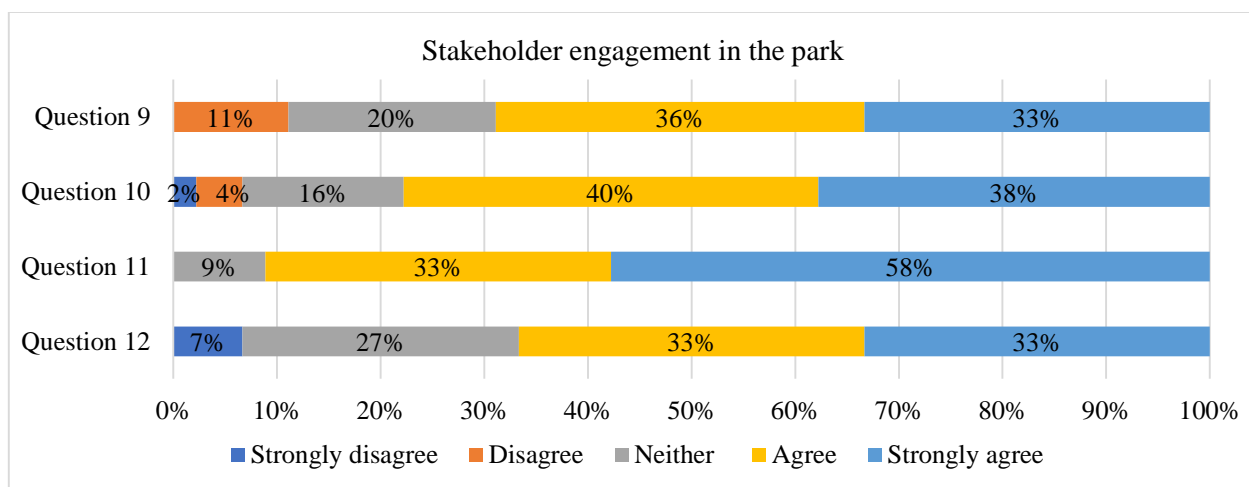


Figure 6. Respondents’ views of stakeholder engagement in the park.

This was confirmed in the interviews with local people. One of the interviewees, a herder, said:

“Park administration and locals should collaborate in conservation and sustainable pasture land usage. I think either the administration or herders dealing alone with pasture land degradation will not result in a good solution.”

Supporting that statement, another interviewee, who is the head of the herder community, stated:

“We are proud of living close to an area that has the greatest number of wild horses in the world. As locals, we are open to collaborate with the park administration for conservation activities. But some involvement or participation support from the park administration is necessary for us.”

4.1.3 Conflicts between stakeholders

The third section of the survey was focused on determining the main conflicts and issues between stakeholders, according to questions 13 (Table 3) and 14 (Table 4), both of which contained multiple statements (See Appendix 1). Each table shows the distribution of answers by the respondents. The tables show the distribution of respondents' answers regarding reasons for conflicts and challenges they faced on natural resource use in the buffer zone. 56% of respondents agreed or strongly agreed with the statement that pasture land was limited, and 60% of them agreed or strongly agreed that their ability to move and rotate seasonal pastures with livestock was limited. This can be compared with Figure 9 below, which shows locations of herders' winter places in the buffer zone and the grazing areas of wild animals in the park.

Table 3. Potential reasons for conflicts about natural resource usage between stakeholders in the park, according to survey respondents.

Potential reasons for conflicts about the usage of natural resources	Strongly disagree	Disagree	Neither	Agree	Strongly agree
13. I have faced the following challenges or troubles while living in the buffer zone of the protected area:					
a) Pasture land is limited.	9%	13%	22%	27%	29%
b) Ability to move and rotate seasonal pastures with livestock is limited.	16%	9%	16%	33%	27%
c) There are misunderstandings with the protected area administration when transiting through the protected area with animals.	18%	13%	18%	36%	16%
d) Opportunities to start and maintain household farms such as pigs, chickens, and honey are limited.	29%	4%	22%	22%	22%
e) There is a lack of opportunities for household gardening of vegetables.	18%	11%	13%	29%	29%
f) Noise and disturbance from tourism-related activities cause discomfort.	31%	36%	9%	13%	11%
g) There is a lack of opportunities for collection of food, and medicinal plants from the protected area.	31%	18%	7%	11%	33%
h) The protected area administration does not pay much attention to improving the livelihoods of herders and locals in the buffer zone.	13%	16%	24%	31%	16%

One of the three interview respondents, a herder, mentioned:

“During the last few years, the number of herders has been increasing in the buffer zone of the park. The condition of our pasture land is getting worse. Also, there are some conflicts between herders due to grazing area. It did not happen 10 years ago. If the numbers of migrating herders keep increasing in the buffer zone, our grazing area will be more limited and degraded, and it will be a very big problem for local herders.”

Also, a park ranger stated:

“The main conflicts with herders are related to livestock grazing in the core zone and park area. Most of the time, herders leave their livestock without a herder in the buffer zone. Left free like that, the livestock will enter the park.”

Additionally, he said:

“Herders’ summer places are in the south part of the park. Winter places are mostly in the north part of the park. Related to the summer and winter rotation, herders move with their animals through the protected area. This brings conflict between the park administration and herders.”

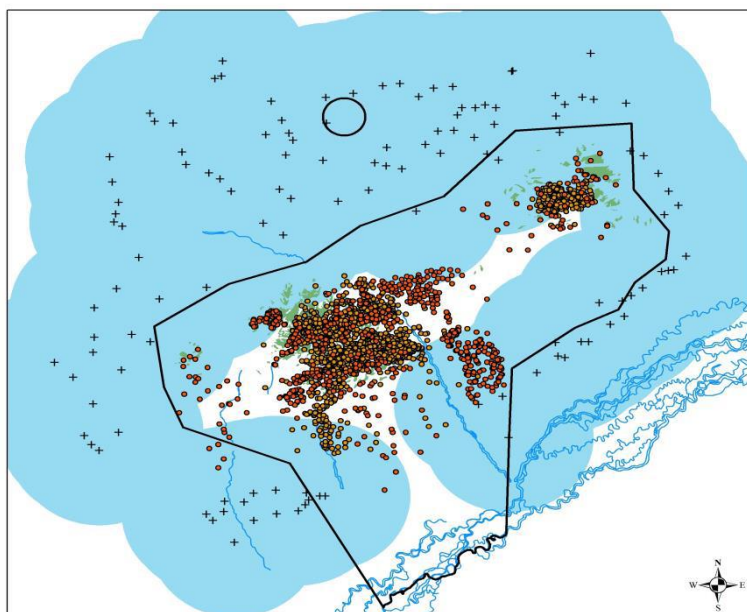


Figure 7. The distribution of winter places of locals and wild animals in Khustai National Park and its buffer zone. Plus (+) marks show the winter place of a herder family and red points show the recording of wild animals (wild horses, red deer, gazelle, ibex and wild sheep) (Source: Management plan of Khustai National Park 2016–2021).

Table 4. Potential reasons for conflicts about natural resource usage between stakeholders in the park, according to survey respondents.

Potential reasons of conflicts regarding participation	Strongly disagree	Disagree	Neither	Agree	Strongly agree
14. I have the following challenges in regard to expressing, co-operating, and participating.					
a) Information about meetings and workshops is not distributed sufficiently to reach everyone, especially those in remote areas.	16%	16%	27%	29%	13%
b) The National Park Administration does not organize activities to listen to the views of local people.	16%	16%	31%	27%	11%
c) The National Park Administration does not take action to resolve complaints and views.	13%	22%	29%	29%	7%

d) There is a lack of information and understanding of the rights of the community regarding the proper use of natural resources for environmental protection.	11%	13%	38%	27%	11%
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Conflicts and arguments between stakeholders and the national park administration focused on local interests and livelihood sources. Table 5 shows the responses regarding statements about how the administration of the park supported the livelihood of herders and locals in the buffer zone (Question 15, see Appendix 1).

Table 5. Respondents' views on livelihood support in the buffer zone.

Livelihood support provided by the park administration in the buffer zone	Strongly disagree	Disagree	Neither	Agree	Strongly agree
15. The administration of the national park supports me in the following ways:					
a) Provision of loans	13%	7%	24%	16%	40%
b) Supporting tourism activities	22%	11%	16%	36%	16%
c) Training in household productivity	11%	9%	24%	36%	20%
d) Marketing of crafts	18%	16%	13%	29%	24%
e) Opportunities for permanent jobs	36%	20%	20%	11%	13%
f) Opportunities for temporary jobs	33%	11%	16%	29%	11%
g) Access to grazing	42%	20%	24%	7%	7%
h) Access to hay making	62%	20%	11%	7%	0%
i) Access to food and medicinal plants	62%	29%	4%	2%	2%

4.1.4 Stakeholder engagement strategy in the national park

The fourth section of the survey was focused on determining the community's views regarding a stakeholder engagement plan for the park, according to questions 16 to 25 (Table 6 and 7).

Table 6. Various suggestions of community for a stakeholder engagement plan.

Community suggestions for stakeholder engagement plan	Strongly disagree	Disagree	Neither	Agree	Strongly agree
16. The best way to express your views and participate in making decisions on nature conservation and sustainable use of natural resources in protected areas is:					
a) Bagh (sub-village) citizens' public meeting	-	-	3%	28%	69%
b) Annual meeting of the National Park Administration	-	10%	27%	49%	14%
c) Workshops of the National Park Administration	-	18%	22%	46%	14%
17. The frequency of formal meetings related to the conservation and sustainable use of natural resources in a year					
a) 3 times a year	-	6%	28%	30%	36%
b) 4 times a year	-	5%	22%	42%	31%
18. The frequency of the informal meetings related to the conservation and proper use of natural resources in a year					

a) 2 times a year	18%	7%	12%	30%	33%
b) 3 times a year	4%	12%	19%	38%	27%
19. What are your preferred communication channels for direct communication with the administration					
a) Personally meet with any official of this area with special authority	-	-	46%	34%	20%
b) Express phone calls and participate in collaboration	-	-	17%	68%	15%
20. What do you want the National Park Administration to focus on in terms of livelihoods of communities in the buffer zone?					
a) Flexible approach to pastureland management	-	-	33%	36%	31%
b) Clarify pasture for rotation and summer grazing	-	-	28%	30%	22%
c) Support for tourism activities	-	11%	24%	32%	33%
d) Support household farming such as pigs, chickens and beekeeping	-	-	-	12%	88%

Table 7. Community attitudes to and interest in participation and its form in the buffer zone.

Community's suggestions for stakeholder engagement plan	Strongly disagree	Disagree	Neither	Agree	Strongly agree
21. What is your main interest and priority when co-operating and participating with the park administration?					
a) Increase opportunities to trade handicrafts with tourists and participate in tourism	-	10%	27%	32%	31%
b) Protecting and preserving historical and cultural heritage in this Protected Area and supporting family livelihoods	-	-	55%	25%	20%
c) Participating in the reintroduction of Przewalski horses or wild horses and contributing to the conservation of wildlife	-	-	55%	12%	33%
d) Enhancing the participation of the community in decision-making related to environmental conservation and rational use of natural resources	-	-	2%	88%	10%
22. What form of participation do you want when taking part in decision-making related to nature conservation and sustainable use of natural resources:					
a) Follower / follow all decisions from administration of the park without any participation	9%	19%	52%	20%	-
b) Receiver / be informed about plans and data from the researcher and decision-makers without active participation/	11%	16%	32%	29%	12%
c) Establish a stakeholder group / active participation and work together in the community-based groups	-	-	36%	51%	13%
23. It is my responsibility to protect the biodiversity of the National park area.	-	-	15%	47%	38%
24. Establishing community-based monitoring groups to assist in nature conservation and sustainable use of natural resources is a way of improving collaboration.	-	-	24%	47%	29%

25. Using community-based co-operation is a way of protecting the environment and managing natural resources.

- - 16% 51% 33%

National park administration

4.1.5 Background information about interview respondents

As explained above, eight persons were interviewed in all, five of them from the administration staff of the park and three representatives of locals. Table 8 shows a summary of interviewees who worked for the park.

Table 8. Summary of interviewees from the park administration.

Position	Role in park management	Gender
Director	Make decisions	M
Research and training manager	Manage research activities and organize public training sessions	M
Protection manager	Manage protection or conservation activities	M
Tourism manager	Manage ecotourism activities	F
<i>Soum</i> co-ordinator of buffer zone	Coordinating communities and herder groups in a <i>soum</i>	F

From the interviews, several themes were identified during the analysis (Figure 8). The themes could be connected to existing frameworks and guidelines for the design of stakeholder engagement strategies for protected areas (Dovers et al. 2015) and for combating land degradation (ELD Initiative 2015).

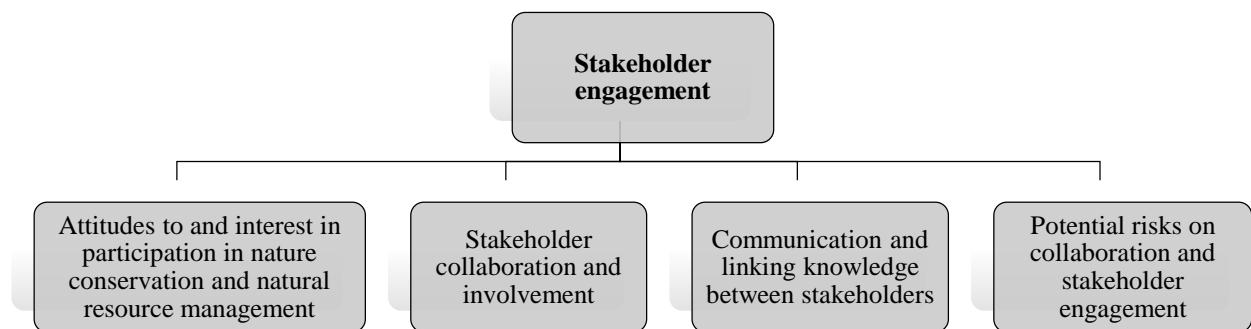


Figure 8. Summarized interview themes.

4.1.6 Attitudes to and interests in participation

Dovers et al. (2015) mentions that stakeholders show significant differences depending on which organizations or groups the stakeholders belong. For example: government organizations, non-governmental organizations, large or smallholder, private sector, locals and communities, as well as their relation to and interest in collaboration. Furthermore, they note that determining key stakeholders, their identity and interests, roles and power to affect conservation management of the park is important to manage stakeholder engagement effectively. One of the interview respondents, who is the park director stated:

“Locals’ attitude is important for nature conservation. During the last few years the number of livestock has been increasing in the buffer zone of the park and it has influenced pasture land degradation. Based on the research we organized training to inform the herders. They have known and seen how pasture land is degraded due to the increased number of livestock and overgrazing. But the area where they are living is not far from the capital city and they have some interest in selling animals and meat to city residents, so they are still managing their livestock.”

A tourism sector manager stated:

“Even we inform tourists about basic rules which they must follow in the park, sometimes they do off-roading to get close to wild animals. Some tourists don’t want to listen and follow the rules of conservation in the park.”

Furthermore, she mentioned:

“There are different understandings and attitudes between local herders and migrating herders who come from other parts of Mongolia and have resided in the buffer zone for the last few years. Herders who are locals know well what the national park administration does for the conservation of nature. But herders who have migrated, they herd their livestock in the core zone of the park, where wild animals graze.”

A protection sector manager said:

“Attitudes towards conservation and understanding of park management is different between generations. Older locals know the area well and they are supportive of the park administration activities. But young people don’t know much about what the national park administration does.”

Moreover, he said that:

“For me, herders who are in the herders’ community group take a lot more responsibility for conservation of the park than herders or locals who aren’t in the group.”

A research and training manager mentioned:

“There is a kind of similar perception or attitude observed in the community, which is if they live in the buffer zone or the park, the administration will support their livelihood. This can be a reason for the increase in herder numbers in the buffer zone.”

Summarising this part, most interviewees supported the general idea that attitudes of locals are significant for protection and sustainable natural resource management. Several things are important to consider for stakeholder engagement planning in the park:

- Locals' attitudes and interests
- Different understandings of local herders and migrated herders about conservation activities in the park
- Different understandings between generations
- Informing herders about the importance of community groups and involving them in those community groups for building "ownership"

4.1.7 Stakeholders engagement and its significance in conservation

The interviewees highlighted the importance of engaging stakeholders in conservation of the park, as suggested by Dovers et al. (2015). For instance, the park director mentioned the importance of incentives:

"I think local participation is very important in conservation activities. We are implementing a small project on marmot population protection with local communities. Within the framework of the project, we handed over the marmot burrows to the herders' community. If the marmot burrows have increased or the number of marmots in the area has grown, they get a reward from the park administration by the end of the year. Both the park administration and the herders are happy to see the increase in marmots in the park and we are proud that we now have the largest density of marmots in Mongolia."

A protection sector manager stated:

"Without locals' participation, it seems quite hard or almost impossible to implement environmental projects sustainably. Some locals, they are happy to participate in conservation activities voluntarily. For example, there are some volunteer rangers in the buffer zone. They participate in wild animal observation research and give information about visitors who drive off-road and practise some illegal hunting. It makes our protection work easier."

A tourism manager mentioned that:

"Collaboration is a major thing in conservation. Park administration, local government and locals should collaborate in the conservation of the park. If the administration or locals alone play the main roles in conservation, it will not reach a successful result."

In summary, all interviewees agreed that local participation for conservation and collaborating with them is essential for park management.

4.1.8 Linking knowledge and communication

Most respondents mentioned that communicating, exchanging information with stakeholders and linking knowledge between stakeholders are significant in national park conservation, as suggested by Dovers et al. (2015) and the ELD Initiative (2015). Furthermore, Chambers (1994) described

the significant principles of participatory rural appraisal that stress the importance of recognising and involving local knowledge as a technique of development. Also, Stolton et al. (2015) mentions that community-based and participatory co-production of knowledge is needed among the different groups and institutions, such as scientists, locals, technical advisors, administrators and policy makers in nature conservation, to ensure sustainable land use of protected areas.

The park administration organises several meetings, workshops and livelihood support training sessions for locals and herders. For more information about the frequency of official meetings with locals, most respondents mentioned that official meetings with locals, for example *bagh* or sub-village meetings, are organized four times a year, herder communities' meetings are organized twice a year, the buffer zone councils of three *soum* or village meetings are organized two to three times a year and Buffer Zone Integrated Council meeting is held four times a year. For example, a buffer zone manager, when talking about local engagement in the buffer zone, said:

“Every year we organize a massive effort to inform about conservation activities in the three soums of the buffer zone. That activity is aimed at three target groups – children from kindergarten and secondary school, herder community groups, and locals. For example, park biologists do co-teaching at secondary schools, and teach environmental lessons based on real life experiences and field trips.”

The park director said about engagement activities in the park:

“We organized activities for strengthening herder communities based on projects. For example, a herder community which was encouraged by the project started hosting tourists and engaging in ecotourism activities. Community-based tourism became the main livelihood support for the herder community, so they reduced their livestock significantly. It is beneficial for protecting the pasture of the area where the herder community resided.”

Moreover, he mentioned:

“Herders and locals, they have been involved in felt handicrafts, traditional clothes-making, dairy producing, greenhouse farming and beekeeping training since 2004. The outcome of that training, or products which they have made, are for sale in the souvenir shop of the park. Also, a woman who attended felt handicraft training became a national felt handicraft facilitator. It can be a good example of work with locals even it is only a small influence on livelihood support.”

The park director stated that:

“We organize official meetings, workshops several times a year with stakeholders. For example: we organize an official meeting with herders and locals in the park camp once a year. Around 100 of them attend that meeting every year. This is a very good chance to meet with locals, listen to their view of park conservation, and exchange ideas with each other.”

During interviews on statement about link between local and scientific knowledge, research and training manager stated:

“Both local and scientific knowledge is important for sustainable conservation. We in the park administration organize training sessions and workshops for herder communities and locals. Herders and locals express their ideas about the training they want, an official meeting with herders is a place to discuss it. Training topics were decided based on discussions and mutual understanding between herder communities and the park administration.”

Also, he highlighted:

“In recent years, the park administration has visited bagh or sub-village local official meetings to introduce the conservation purposes of the park. Also, we share current research results related to environmental conditions, environmental problems and their causes. This meeting is effective to exchange our ideas with locals and enlighten them about conservation concepts.”

The protection manager mentioned informal meetings:

“While we do some field observations in the park we meet herders and locals. During such informal meetings we try to supply information related to the current situation, such as awareness of forest wildfires and illegal hunting.”

Summarising these interview outcomes, the herder community group is the basic collaboration and communication unit with which the park administration works.

4.1.9 Potential risks in collaboration and stakeholder engagement

The ELD Initiative (2015) notes that determining potential risks for the engagement helps to refine engagement objectives and can be a means to identify mitigation measures and find effective ways of achieving objectives. Most respondents agreed with this. Some of them mentioned the potential risks of stakeholder engagement in the park. For instance, the park director said the following:

“Due to reduction of financial support in the buffer zone since 2012, park conservation and livelihood support training sessions and workshops for informing locals and herders about activities have been reduced. Maybe locals expect similar things as we implemented before 2012 in the buffer zone. This can be a reason for misunderstandings between locals, herders and park administration. Now what we understand is that collaboration is a continuous process and it should go in a circle. It should not stop, and we should inform and work with herders and locals as much as possible.”

A protection manager mentioned:

“We try to involve in our engagement activities the migrating herders who come from different parts of Mongolia and reside in the buffer zone of the park. During the last few years, conflicts about livestock grazing in the core zone have been increasing. Most of the livestock belong to the migrating herders. Their knowledge about park conservation is very poor.”

A research and training manager said that:

“For the last few years, the number of winter places of herders has increased significantly. In 2003 there were around 40 winter places. Now that number has almost tripled and there are around 120 winter places of herders in the buffer zone. Wild animals are therefore being chased into the core zone of the park.”

Also, he mentioned:

“The park administration has no right to land usage in the buffer zone. The local administration decides where migrating herder families reside. If local administration allows the allocation of winter places to more migrating herders in the buffer zone, the pasture land situation will be getting much worse. So, we should develop more our collaboration with the administrations of the three soums about pasture land usage in the buffer zone.”

The park director said:

“Organizing herders in community groups, the activity has started since reintroduction of wild horses. Herders’ community groups are the main basic unit of collaborating with herders. Now we are noticing herder community group activities are getting slow and weak.”

The research and training manager stated that:

“There is a need to improve legal documents about protected areas at the national level. For example, the Act on Protected Areas is only about conservation, but there is nothing about sustainable natural resource usage of national parks.”

Potential risks to collaboration with locals and herders can be summarised as follows:

- Reduction of financial support for training sessions and workshops, engagement activities related to sustainable livelihood and buffer zone development
- Conflicts between migrating herders due to grazing their livestock in the core zone and rangeland degradation in the buffer zone
- Inadequate collaboration with local authorities on such issues as land usage in the buffer zone
- Locals and herders who have lack of knowledge on conservation

- Inadequate legislation on protected area governance

Gender issues

The administration of Khustai National Park involves both women and men equally in engagement activities. Some livelihood support training sessions and workshops, such as dairy processing, felt handicrafts, traditional costume or *deel* making, involved women more than men. Generally, in the buffer zone, men have more responsibility for animal herding and women have more responsibility for dairy products processing, traditional clothes-making and household work.

5. SUGGESTIONS FOR A STAKEHOLDER ENGAGEMENT STRATEGY

Stakeholder analyses

5.1.1 Key stakeholders in conservation and natural resource management

Based on the qualitative analysis, more than 30 stakeholder groups were identified and categorised according to their participation in decision-making. They belong to civil society, the private sector, non-governmental organizations, and governmental organizations. From these 30 groups I selected 11 groups of key stakeholders (Table 9). I have used a table model as presented by ELD Initiative (2015).

Table 9. Stakeholder identification of the national park.

Stakeholder group	Type of stakeholder	Description	Relationship to conservation and resource management
Herders and local population	Civil society	Direct land user group. Highly dependent on natural conservation and pasture land conditions.	Strong relation to and medium awareness of pasture land degradation, but no interest in reducing livestock.
Herder community groups	Civil society	Direct land user group. Highly dependent on natural conservation and pasture land conditions.	Medium or low involvement in environmental and other projects initiated by individuals and park administration.
Buffer zone council	Civil society	Connect and bring herders' views into decision-making and a bridge between herders and park administration.	High awareness of conservation and sustainable natural usage management.
Buffer zone integrated council	Civil society	Connect and bring herders' views to decision-making and a bridge between herders and park administration.	High awareness of conservation and sustainable natural usage management.
Tour operators	Private	Bring tourists to national park without any conservation knowledge.	Strong relation with natural attractions, wildlife and historical heritage in the park, but low interest in conservation.
Environmental Conservation Association of Mongolia	NGO	Conservation purpose. Empowering the national park management.	High awareness of and interest in conservation.

Foundation for the Preservation and Protection of the Przewalski Horse	International NGO	Conservation purpose. Supporting finance and empowering the national park management.	High awareness of and interest in conservation.
Universities and research institutes	Government & private	Research purposes. Provide information about environmental conditions in the park to community for increasing awareness.	High awareness of conservation but no interest in natural resource usage.
Local government	Government	Political dilemma between pasture land protection and increasing the number of livestock in the buffer zone.	High involvement in decision-making on natural conservation and land usage in buffer zone.
Administration of Protected Areas Management	Government	Provide legislation and regulation and empower park management.	High involvement in decision-making.
Ministry of Environment and Tourism	Government	Provide legislation and regulation and empower park management	High involvement in decision-making.

5.1.2 Differentiation and categorization of stakeholders

The most commonly used approach focuses on the relative interest of stakeholders in the project or relevant decisions, and level of influence over that project or decisions. This is basically done using an interest-influence matrix (Reed et al. 2009). In this section I use this method for determining the interest and influence of stakeholders in park conservation and resource management.

Reed et al. (2009) highlights several criteria for placing stakeholders in the matrix. Four types of stakeholders are identified. **Key players** are stakeholders with a high level of interest and influence in decision-making and participation. **Context setters** have high influence even though they have low interest in the project itself. They exert significant influence over the project but are difficult to engage in the project. **Subjects** have high interest but a low level of influence in the project. They are supportive and can later be become influential by forming other institutes with other more influential stakeholders. Finally, **crowds** are stakeholders who have a low level of influence and interest in the project. In Figure 9 the stakeholders are placed in this matrix in relation to park conservation and resource management.

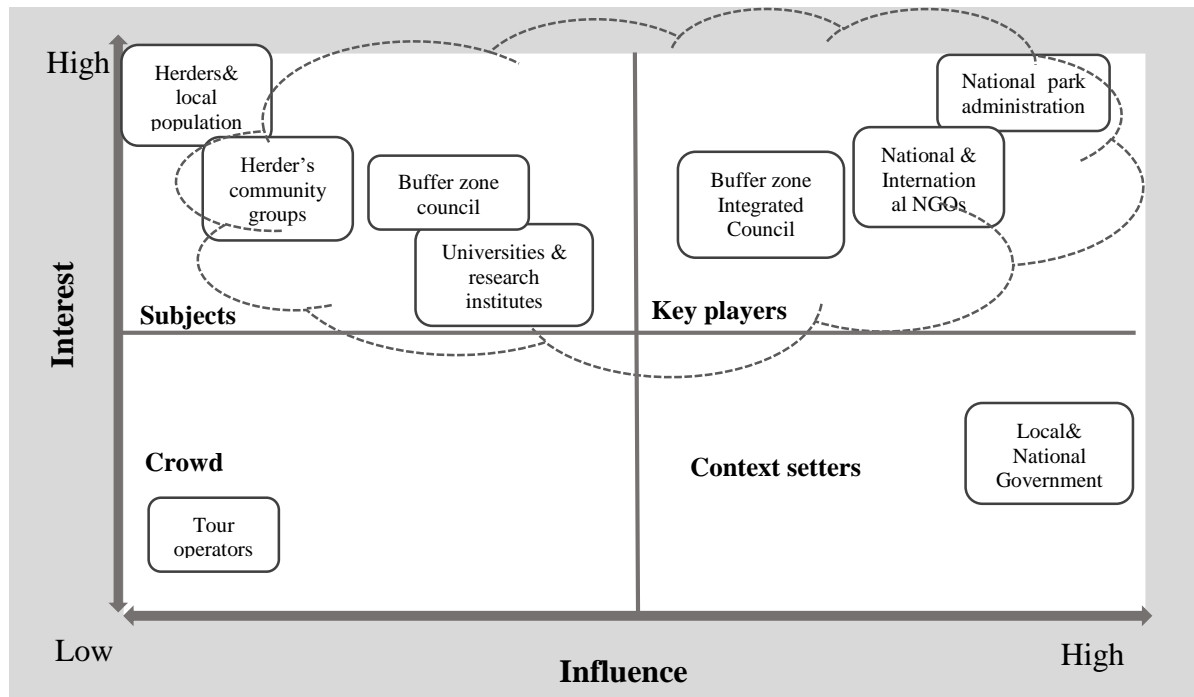


Figure 9. Stakeholders' categorization based on interests and power in decision-making in conservation and resource management of the park.

5.1.3 Stakeholder interdependencies, relationships and roles.

Determining interdependencies and relationships of stakeholders using a Venn diagram (see Fig. 10) and Actor-linkage matrices (Reed et al. 2009) (see Table 10) and determining the role based on ecosystem services (ELD Initiative 2015).

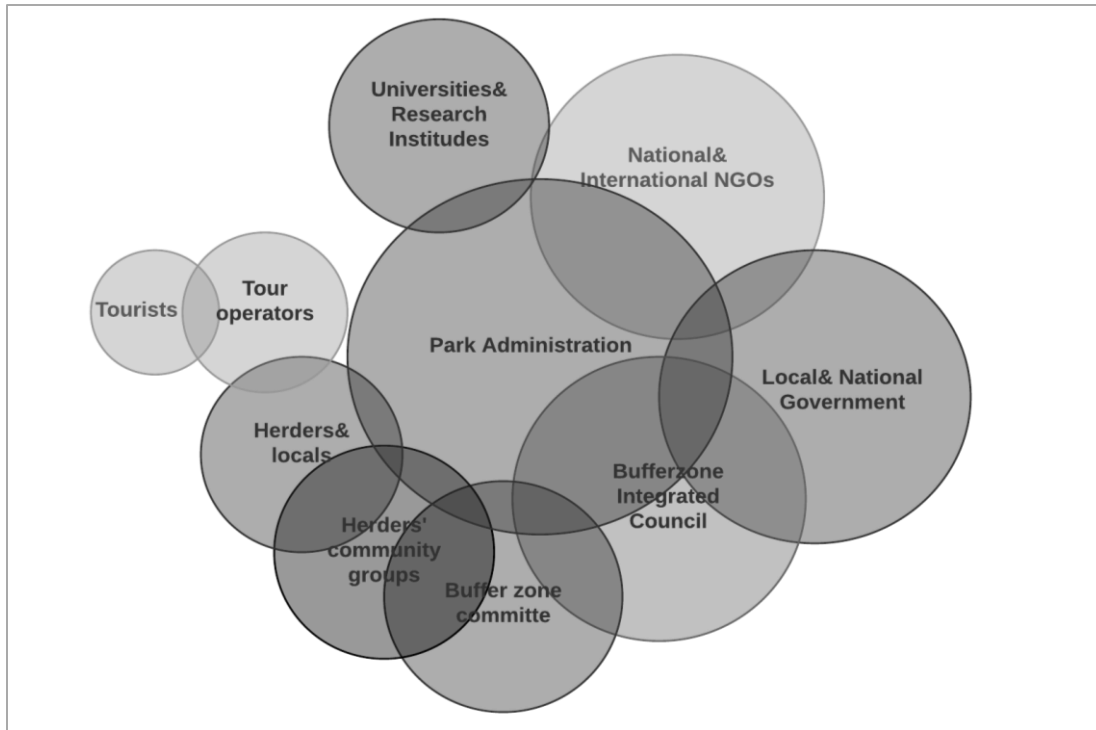


Figure 10. A Venn diagram showing interdependencies and relationships between stakeholders.

Table 10 shows stakeholders' interests related to ecosystem services and determined power of instruments and source of influence. Table 10 includes both the above-mentioned Interest-Influence matrix and Venn diagram methods.

Table 10. Stakeholders’ interest and influence based on ecosystem services in protected area (Reed 2008; ELD Initiative 2015).

Stakeholders	Interest				Influence			Source of influence		
	Ecosystem service				Instruments of power			Source of influence		
	Supporting	Provisioning	Regulating	Cultural	Condign	Compensatory	Conditioning	Personality	Property	Organization
Herders and local population	+++	+++	+	+		+		+	++	
Herder’s community groups	+++	+++	+	+			++		+	
Buffer zone council	++		+	+			++			+
Buffer zone integrated council	++		+	+			+++			++
Tour operators				+++		++				++
Environmental conservation Association of Mongolia	++					++	+++			+++
Foundation for the Preservation and Protection of the Przewalski Horse	++					++	+++			+++
Universities and research institutes	+		+	++		+	++			++
Local government Administration	++	++			+	++	++			+++
Board of Protected Area Management		++			+		+++			+++
Ministry of Environment and Tourism			+	+			+++			+++

Explanation: +++ high; ++ moderate; + low; blank means insignificant

Model of stakeholder engagement plan in the park

According to the ELD Initiative (2015), the first step in designing a stakeholder engagement plan is to define the goals that it seeks to address. It is important to negotiate the main goals of the process at the start of stakeholder engagement as this helps to cultivate ownership.

There are various methods for setting such goals. The goal for the stakeholder engagement plan for National Park Khustai was created on the basis of the qualitative data analysis presented above, as well as from reference reviews of the Khustai National Park Management Plan 2016–2021, and the Buffer zone Management Plan of Khustai National Park 2016–2021 (Khustai National Park Trust 2015). However, some of the suggested delivery mechanisms or activities in the engagement plan (Table 11), as well as the communication frequency part of the communication strategy (Table 12), result from the findings of the qualitative research or questionnaires with locals and herders. The engagement plan model included concepts of stakeholder analysis which were mentioned above. Then all findings were merged into a stakeholder engagement strategy for Khustai National Park (See Appendix 2).

Table 11. Model of stakeholder engagement plan of the park, based on example from ELD Initiative (2015).

Objective	Target stakeholder groups	Key messages	Delivery mechanism or activity	Risk	Risk mitigation	Timing
Improve rangeland management in buffer zone by 2021 based on stakeholders' collaboration	- Herders and local population - Herder communities' - Buffer zone groups - Buffer zone committees	- Pasture carrying capacity is exceeded 6 times in the buffer zone - Rangeland degradation influences livestock productivity - Building community is a way to improve rangeland condition - When herders are in a group they work together on such rangeland management as resting pasture, rotating livestock with other herders, do restoration	- Establish new herder community groups - Improve activities of previously established herder community groups - Organize trainings, workshops and awareness raising events on conservation and pasture carrying capacity in buffer zone - Information sheet for herders and local population - Build fences for rangeland protection for wild animals - Encourage the herder, and herders' community groups who adjust the pastures carrying capacity between number of livestock	- Lack of interest	- Engage stakeholders at the beginning of the process - Get feedback from herders for adaption of engagement plan	2018–2021
	- Local government - Buffer zone integrated council - Administration Board of Protected areas - Ministry of Environment and Tourism	- Uncontrolled herders' migration with livestock influenced rangeland degradation - Include legal provisions related to natural resource usage, compensation payments in the national park	- Establish a memorandum on land usage in buffer zone three <i>soums</i> - Encourage the <i>soum</i> and <i>bagh</i> , administration units to adjust the number of livestock in consideration of pasture carrying capacity - Organize workshops and presentations on policy analysis and current issues in the national park	- Lack of interest - Change of local government and national government status by election	- Publish a memorandum on land use in the three buffer zone <i>soums</i> before end of the parliament	2018–2021
	- National and international research institutes and universities	- More than 70% of the birch forest has been damaged in some way. Need to rehabilitate the birch forest ecosystem and diversity.	- Five hectares (Khustai National Park Trust 2015) birch forest restoration based on monitoring research	- Lack of communication - Wild <i>Red deer</i> eat young plants	- Expand relationships - Build fence	2018–2021

As mentioned before, successful participation is dependent upon an effective flow of communication (ELD Initiative 2015). Therefore, to suggest how to engage stakeholders, we should give an answer as to what form or communication format will be suitable for that specific situation (Dover et al. 2015). Table 12 presents a communication strategy for engagement in Khustai National Park.

Table 12. Model of communication strategies for the park, based on example from ELD Initiative (2015).

Stakeholders	Area of interest	Type of language	Format and frequency of communication
- Herders and local population - Herders' community groups - Buffer zone committee - Buffer zone integrated council	- Sustainable livelihood related to rangeland, tourism sector activities and household farming - Conservation of the park	Mongolian, basic scientific/conservationist terminology possible	Formal meetings and workshops: - Herder community group's meeting (twice a year) - Buffer zone committees' meeting (three times a year) - <i>Bagh</i> or sub-village representatives' meeting (four times a year) - <i>Soum</i> or village representatives' meeting (four times a year) - Buffer zone Integrated Council meeting (four times a year) - Park administration annual report meeting (once a year) - Conservation and pasture carrying capacity workshop (4 times a year) - Livelihood support training (twice a year) Informal communication formats: - Information sheets, flyers, leaflets distribution (twice a year) - Phone calls
Local governments	Integrate and manage sustainable land usage and livelihood of locals and migrating herders in buffer zone	Mongolian, basic scientific/conservationist terminology possible	- <i>Bagh</i> or sub-village representatives' meeting (four times a year) - <i>Soum</i> or village representatives' meeting (four times a year) - Buffer zone Integrated Council meeting (four times a year) - Conservation and pasture carrying capacity workshop (twice a year)
Administration Board of Protected areas	Support and strengthen capacities of national park	Mongolian, scientific/conservationist terminology possible	- Park administration annual report meeting - Conservation and pasture carrying capacity workshop (once a year) - Protected Areas Annual Report meeting (once a year) - Workshops on policy analysis (twice a year)
Ministry of Environment and Tourism	- Conservation of the park - Support and strengthening of capacities of national park staff	Mongolian, basic scientific/conservationist terminology possible	- Protected Areas Annual Report meeting (once a year) - Workshops on policy analysis (twice a year)
National and International Research institutes and Universities	- Research - Share research results with the park administration for informing public	Mongolian and English scientific/conservationist terminology possible	- Khustai National Park Academic Council's annual meeting - International research workshop (once a year) - International student's summer school (once a year) - National and international student internships (once a year)

Table 13 is related to models of engagement plans and communication strategies. It gives more detailed information about different engagement levels for implementing various stages of activities.

Table 13. Planning activities for different levels of engagement for the park, example from the ELD Initiative (2015).

Stakeholders	Beginning of the engagement process	During the engagement process		End of engagement process
		Phase 1	Phase 2	
Herders and local population	Inform/Involve	Involve	Inform/ Collaborate	Inform/Involve
Herder community groups	Inform/Involve/ Collaborate	Involve	Inform/ Collaborate	Involve
Buffer zone committee	Collaborate	Collaborate	Collaborate	Collaborate
Buffer zone integrated council	Inform/ Collaborate	Collaborate	Collaborate	Collaborate
Local government	Inform/ Collaborate	Involve/ Collaborate	Collaborate	Collaborate
Administration Board of Protected areas	Inform/ Consult	Consult	Consult/ Collaborate	Involve/ Collaborate
Ministry of Environment and Tourism	Inform	Consult	Consult/ Collaborate	Collaborate
National and International Research institutes	Involve	Involve/ Collaborate	Involve/ Collaborate	Involve/ Collaborate
National and International Universities	Involve	Involve/ Collaborate	Involve/ Collaborate	Involve/ Collaborate

Explanations: **Inform** - a basic level of engagement; **Consult** - specific questions are asked but not full discussions or interaction; **Involve** - more opportunity for discussion; **Collaborate** - involved to some extent in full decision-making.

6. CONCLUSION

According to the research presented in this report, herders, locals and park administration staff generally consider collaboration to be an important tool for advancing conservation and sustainable natural resource use in Khustai National Park. Several problems need to be addressed. The increase in livestock numbers due to herders’ in-migration from Western Mongolia is the main reason for conflicts regarding natural resources such as rangeland. This increase in livestock is a cause of degradation, both in the buffer zone and the park area. Also, off-roading of tourists and illegal hunting of Mongolian marmot (*Marmota sibirica*) and red deer are becoming issues of concern in conservation.

The research showed that knowledge of local attitudes, interests and differences between generations is significant for the design of an engagement plan. It also showed that informing and involving migrated herders in park engagement activities is necessary in order to build a feeling of ownership among users.

Herders’ community groups are the basic units for participation in conservation, sustainable resource use and decision-making in the park. The research showed a need to build, strengthen and re-arrange herders’ community groups so as to allow for close collaboration. Both the questionnaire that was answered by herders and the interviews with both park administration and locals clearly

showed that they are positive and supportive towards closer engagement in nature conservation activities, sustainable livelihood projects, and decision-making.

The results of this research can be used as a starting point for further development of stakeholders' engagement plans and approaches for conservation and sustainable natural resource use, in Khustai National Park and other protected areas. Government support is needed to ensure conservation by making policies and regulations that allow for sustainable natural resource usage in national parks.

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APPENDICES

Appendix 1. Questionnaire for locals and herders in the buffer zone of the Khustai National Park

This research is being conducted by a trainee at the United Nations University – Land Restoration Training Programme in Iceland. This is a part of the fellow’s individual research project for the completion of the course.

GENERAL INFORMATION

A. Your:

Age: Gender: Education:

B. What is your occupation?

- a. Herder
- b. Other, which?

C. Where do you reside?

- a. In this locality
- b. Elsewhere:

D. If in this locality, how many years have you lived in the buffer zone of the protected area?

- a. 1-5 years б. 5-10 years в. 10-15 years г. 15-20 years д. 20-25 years е. >25 years

A. STATE OF COLLABORATION BETWEEN PROTECTED AREA ADMINISTRATION AND LOCALS IN THE NATIONAL PARK

Please tick the box from the questions below.

1. Living close to a protected area is good for the livelihood of my family and me.

-
- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

2. My family and I always follow all the regulations and recommendations given by the National Park Administration.

-
- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

3. My family and I participate in consultative meetings to express our ideas about regulations and recommendations developed by the National Park Administration.

-
- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

4. It is certain that my views are considered in decision-making by the National Park Administration.

-
- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

5. The National Park Administration listens to views of locals and herders when developing the management plan of the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

6. The National Park Administration develops the management plan based on mutual understanding between stakeholders.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

7. The protected area administration regularly and openly presents their action plan for co-operation.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

8. The current action plan for co-operation is clear and understandable.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

B. STAKEHOLDER ENGAGEMENT IN THE NATIONAL PARK

9. Locals should play a significant role in a stakeholder engagement plan, which is part of the management plan of the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

10. The administration of the protected area should play a main role in a stakeholder engagement plan which is the part of the management plan of the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

11. Locals and protected area administration should collaborate on the conservation of nature and usage of natural resources.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

12. The National Park Administration needs to improve its co-operation with herders and local communities in order to ensure environmental protection and sustainable use of natural resources.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

C. CONFLICTS BETWEEN STAKEHOLDERS IN THE NATIONAL PARK AREA

13. I have faced the following challenges or troubles while living in the buffer zone of the protected area:

A. Pasture land is limited.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

B. Ability to move and rotate pastures with livestock is limited.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

C. There are misunderstandings with the protected area administration when transiting through the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

D. Opportunities to start and maintain household farms such as pigs, chickens, and honey are limited.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

E. There is a lack of opportunities for household gardening of vegetables.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

F. Noise and disturbance from tourism-related activities causes discomfort.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

E. There is a lack of opportunities for collection of food, mushrooms and medicinal plants from the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

F. The protected area administration does not pay much attention to improving the livelihoods of herders and locals in the buffer zone.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

G. Other challenges:

.....

.....

14. I have the following challenges in regards to expressing, co-operating, and participating in environmental conservation and sustainable use of natural resources in the protected area.

A. Information about meetings and workshops is not distributed sufficiently to reach everyone, especially those in remote areas.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

B. The National Park Administration does not organize activities for listening views of local people.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

C. The National Park Administration does not take action to resolve complaints and views.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

D. There is lack of information and understanding of the rights of the community regarding co-operation and participation in the proper use of natural resources for environmental protection.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

15. The National Park Administration supports me in the following:

A. Provision of loans.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

B. Supporting activities related to the tourism sector.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

C. Training in household productivity such as felt crafts, dairy products, etc.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

D. Marketing of crafts.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

E. Opportunities for permanent jobs at the park.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

F. Opportunities for temporary jobs.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

G. Access to grazing in the limited use zone of the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

H. Access to hay making in the limited use zone of the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

I. Access to food and medicinal plants in the limited use zone of the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

J. Access to timber and charcoal in the limited use zone of the protected area.

- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

D. STAKEHOLDER ENGAGEMENT STRATEGY IN THE NATIONAL PARK

16. The best way to express your views and participating in making decisions on nature conservation and sustainable use of natural resources in protected areas is:
- a. Bagh (sub-village) citizens' public meeting
 - b. Soum (village) citizens' public meeting
 - c. Annual meeting of the National Park Administration
 - d. Workshops of the National Park Administration
 - e. Training sessions for locals from National Park Administration
 - e. Informal meetings

17. How often do you think the formal meetings related to the conservation and sustainable use of natural resources should be held in a year?
-
- a. 1 times b. 2 times c. 3 times d. 4 times e. More than 4 times

18. How often do you think informal meetings related to the conservation and proper use of natural resources should be held in a year?
-
- a. 1 b. 2 c. 3 d. 4 e. More than 4

19. What are your preferred communication channels for direct communication with the administration?
- a. Personally meet with any official of this area with special authority
 - b. Express phone calls and participate in collaboration
 - c. Write a letter addressed to the administration of the Special Protected Area
 - d. Email
 - e. Social network
 - f. Other

20. What do you want the National Park Administration to focus on in terms of livelihoods of communities in the buffer zone? / Please select the 3 most important ones: /
- a. Flexible approach to pastureland management
 - b. Clarify pasture for rotation and summer grazing
 - c. Clarify the rules and routes for transiting with livestock through the Protected Area
 - d. Support household farming such as pigs, chickens and beekeeping
 - e. Provide opportunity for planting vegetables
 - f. Support for tourism activities
 - g. Give opportunity to collect food and medical plants from protected area
 - h. Organize training sessions on producing handicrafts
 - i. Improving women's participation
 - j. Prioritise employment of locals in the Park

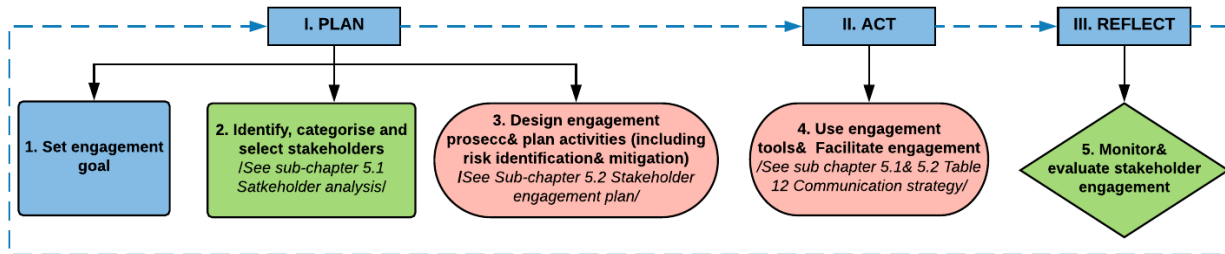
21. What is your main interest and priority when co-operating and participating with the Park administration? / Please choose the 2 most important ones: /
- a. Increase opportunities to trade handicrafts with tourists and participate in tourism

- b. Protecting and preserving the historical and cultural heritage in this Protected Area and supporting family livelihoods
 - c. Participating in the introduction of Przewalski horses or wild horses and contribute to the conservation of wildlife
 - d. Enhance the participation of the community in decision-making related to environmental conservation and rational use of natural resources
22. What form of participation do you want when taking part in decision-making related to nature conservation and sustainable use of natural resources? / Please select one option you most like/
- a. Follower / follow all decisions from administration of the park without any participation/
 - b. Receiver / Informed about plans and data from the researcher and decision-makers without active participation/
 - c. As employees and workers
 - d. Establish a stakeholder group / work together in the community-based groups/
23. It is my responsibility to protect biodiversity of the National Park area.
-
- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree
24. Establishing community-based monitoring groups to assist in nature conservation and sustainable use of natural resources is a way of improving collaboration.
-
- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree
25. Using community-based co-operation is a way of protecting the environment and managing natural resources.
-
- a. Strongly disagree b. Disagree c. Neither agree nor disagree d. Agree e. Strongly agree

THANK YOU FOR YOUR TIME.

Appendix 2. Stakeholder engagement strategy.

A. Flowchart of steps for designing engagement strategy.



B. Model of stakeholder engagement strategy- case of Khustai National Park

