Fall 2013

Mongolian National Parks: Competing Interests and Institutional Viability in a Still Emerging Protected Areas System

Kieryn Wurts
SIT Study Abroad

Mongolian National Parks: Competing interests and institutional viability in a still emerging protected areas system

Wurts Kieryn
Academic Director: Sanjaasuren Ulzijaargal
Advisor: Davaa Galabadrakh
University of Denver
BA Religious Studies/ BA International Studies
Khatgal, Khovsgol Mongolia, Hustai Nuruu National Park, Tuv, Mongolia,
Ulaanbaatar, Mongolia

Geopolitics and the Environment, SIT Study Abroad, Fall 2013

Environmental Studies, Public Administration, Regional Studies: Asia, Australia, and Oceania

I. Abstract

In Mongolia, 17% of the total landmass is designated as one of four kinds of "protected areas"—Strictly protected areas, national parks, nature reserves, and natural historical monuments. This study focuses primarily on national parks as a civil institution, through on the ground interviewing of ten individuals employed in the protected areas system, field-notes and observations, and community surveying totaling 38 respondents at two research locations, Hustai-Nuruu National Park and Lake Khovsgol National Park. Protected areas are constructed civil spaces, and as a result are sites of competing societal interests--the interests of scientists and conservationists, of tourism and business interests, and of local (and many times displaced) peoples, to name a few. This study aims to evaluate national parks in Mongolia--existing in their current legal iteration for about two decades--from the angle of institutional efficacy, the balancing of tourism and conservation interests, and the compensation for losses to national park buffer zone communities. Included with surveying of park operations, successes, challenges and goals as outlined by interviewees and park management plan publication, potential policy suggestions are made in light of research findings. These include suggestions for future policy in each park pertaining to issues of climate change, illegal grazing, buffer zone development, and conservation regulations for tourists--including campsite, boating, and transportation development suggestions.

II. Table of Contents

III. List of figures and tables and key terminology

aimag- Mongolian word for province. There are 21 aimags in Mongolia. Each aimag has an aimag center, the rough equivalent of a province/state capital.

FRPH - Foundation for Reserves of the Przewalski Horse

HNMP - Hustai Nuruu Management Plan

HNPT - The Hustai-Nuruu Park Trust, an NGO and the management arm of Hustai-Nuruu national park

IUCN - International Union for the Conservation of Nature

Lifan Yuan- an agency of the Manchu or Qing empire that oversaw Mongolian dependencies and conquered regions, and was heavily involved in the affairs of Tibetan Buddhism. It has many English translations, including *Office of Mongolian and Tibetan Affairs, Board for the Administration of Outlying Religions,* and *Office of Barbarian Control.*

LKGMP - Lake Khovsgol General Management Plan

MEGD - Ministry of Environment and Green Development (formerly MNET)

NGO - Non-governmental organization

NP - National Park, the second most highly protected area of the four Mongolian protected areas

PA- Protected area. Encompassing the four categories of Mongolian protected area- Special Protected Areas, National Parks, Nature Reserves, and Natural Historical Monuments

Przewalski horse - Species of wild horse, native to Mongolia and nearly extinct. Have been successfully reintroduced into Khustai National Park with a 2013 population of around 300 horses. Przewalski populations have also been reintroduced to

soum- Further jurisdictional subdivisions of aimags, a rough equivalent of counties. Each soum has a soum center, a village that serves as the administrative center of the soum.

SPA - Strictly Protected Area, the most highly protected area of the four Mongolian protected areas.

takhi -see *Przewalski horse*. Mongolian name.

TNC - The Nature Conservancy, an international NGO with operations in Mongolia

***tugrik* -** Mongolian unit of currency

UNEP - United Nations Environment Programme

WCS - Wildlife Conservation Society, an international NGO with operations in Mongolia

WDPA- World Database of Protected Areas

IV. Acknowledgments

Ulzii Bagsh for her support, encouragement, and thoughtful input throughout the project.

Chuluunbaatar Ulziikhishig (Ulzii Akh) for all of his patience and logistical help and openness to phone calls and questions, without which I would have been totally and pathetically lost.

Mr. Galabadrakh, Director of the Nature Conservancy for his invaluable input and direction as my advisor, as well as his willingness to give of his time and insight, and direction as my advisor.

T. Tuvshinbat and everyone at the the Ministry of Environment Protected Areas office for their openness and willingness to make time for me. Thanks to them also for giving me the opportunity to work with them and learn from them during SIT NGO internship week.

Mr. Dashpurev at the Hustai Trust for sharing expertise and his assistance in getting to Hustai. Usukhjargal and Jargoltuya at Hustai-Nuruu for their hospitality, good company, and willingness to share their time and their knowledge of the *takhi* with me.

Vanessa Soetanto for visiting Hustai with me. I loved going mountain crazy together!

Enebish for graciously translating my surveys on shorter than expected notice.

Tsendavaa for being the best of translators and hosts, and helping me to successfully navigate Mongolian long-distance public transportation. Her expertise in tourism, Lake Hovsgol national park, and excellent translations were totally indispensable to the project.

Mr. Davarbayaa and everyone at the Lake Hovsgol office that patiently answered my questions, and made me feel welcome.

The unsung heroes of my project--all of the people who were kind enough to fill out the surveys of a bumbling, awkward foreigner who really did not speak good Mongolian. I have no idea why they were so nice to me. I'm greatly indebted to them.

V. Introduction

The protected areas schema is widely recognized as having originated in the United States with 19th century American conservationists and the development of the National Parks Service. There is indeed something of an aura around the conservation efforts and ideas of people like John Muir, Teddy Roosevelt, Stephen Mather, and Horace Albright. However, Mongolia is credited with establishing the world's first protected area in the 18th century, over 100 years before the establishment of Yellowstone. In 1778, the Mongolian governor of Khuree, Sainzaidorj, made the first formal request for the protection of Bogd Khan Uul, the mountain just south of Ulaanbaatar, for purposes of public worship (UNESCO). Noted in the original document is the reality that respectful treatment of the mountain had been a long established tradition for the Mongols, dating back to the days of the Khans. It was approved by the Manchu *Lifan Yuan* from Beijing that same year. Bogd Khan Uul is also the world's longest continuously protected area.

Today, there are over 150,000 protected areas covering 11% of the world's landmass (WDPA). Mongolia has 99 protected areas, accounting for just over 17% of its total landmass (MNET). These 99 protected areas are divided into four different administrative units--Strictly Protected Areas, National Parks, nature reserves, and natural historic monuments. SPAs and National Parks are both administered at the national level, while nature reserves and natural historic monuments are administered at the level of local aimag and soum governments. This study focuses primarily on national parks, as this protected area designation sits directly at the intersection of tourism and conservation interests and practices, and thus allows for the study of protected areas in their broadest and most diverse form. SPAs, nature reserves, and historic monuments will still be discussed as they relate to the national parks in question, as it is common in the life of a protected area for it to change legal jurisdiction one or more times.

A Mongolian national park is administered by the central government. There are 24 national parks in Mongolia that are intended and designed to be protected areas that incorporate sustainable tourism practices. National parks lands are divided into concentric circles of land use: pristine, tourist and limited. Tourism areas include provisions for nomadic herding practices and fishing. Much of the economic activity in national parks takes place in limited areas. Limited use area restrictions are significantly more lax, allowing commercial use of water and plants, mining practices, forestry, construction of buildings, and hunting activity (Delgermaa, 2012).

The rapid worldwide development of national parks over the last 70 years has garnered attention of cultural anthropologists. By way of critique, they characterize protected areas as an imposition of a western culture/nature dichotomy (West, Igoe, & Brockington, 2006). The claim is that increasingly uniform standards for protected areas have genericized protected areas and nature spaces, and are externally imposed by nation-states and international NGOs. Concerns about protected areas contributing to displacement of local peoples is also highlighted. Examples include the Thai protected areas system, where conservation via restriction of access to protected areas came as a foreign and strange concept to locals engaged in conservation and environmental activism (West, Igoe, & Brockington, 2006). Additionally, displacement from "peace parks" crossing international boundaries in Africa have actually fanned the flames of local land disputes and increased sectarian conflict (West, Igoe, & Brockington, 2006). The legacy of displacement is even traced as far back as the establishment of Yellowstone National Park in the US, discussing the oft glossed over displacement of Native Americans through the establishment of Yellowstone; in its early days the US army was actually employed to keep the space free of Native Americans hostile to tourists and those repossessing the American west (Burnham 2000). Critics of protected areas conclude with a grim assessment of their social impacts, "The overwhelming impression protected-area creation leaves is of restricted access and use for rural peoples through legislation, enforcement, and privatization," (West, Igoe, & Brockington, 2006).

To address these concerns, Mongolia adopted the Law on Buffer Zones, in 1997. The *buffer zone* of a national park is land surrounding a national park that is unprotected in the legal sense, but is home to local peoples, whose livelihoods are often tied to the life of the national park. The designation of an area as a buffer zone requires it to meet certain ecological and socioeconomic criteria. For example, a buffer zone can be an area that is home to endangered species that contains potential disruption to said species. Areas of ecologically significant watersheds are also included, as well as areas that are home to human populations that are dependent on either protected area natural resources or protected area operations ("Law on buffer zones", 2008). Buffer zones are established through a system of approval by local *soum* governments, and once established buffer zones must develop buffer zone boards comprised of local stakeholders, and develop a buffer zone development fund ("Law on buffer zones", 2008). All of these measures are made to fulfil two goals of the buffer zone system: to further protect the ecosystems of the related protected areas, and to compensate and support local communities

for losses to traditional land access caused by the establishment of the protected area (Galabadrakh, 2013).

While the protected areas system has been subject to serious critique, supporters of the framework maintain that protected areas are the most strategic component of worldwide conservation practices--integrating efforts to ensure sustainable rural development, the proper use of land in remote areas, generation of income sources and employment, implementation of research and monitoring, the improvement of environmental public awareness and institutional structure, and development of tourism (WWF, 2009). Despite critiques, there seems to be ecological value to the existence of protected areas. This is especially true with the advent of the mining industry in Mongolia, and growing concerns from people at all levels of Mongolian society about pollution, habitat degradation, and also displacement from mining development.

Within this framework, this study aims to evaluate national parks in Mongolia in their status as a civil institution from the angle of institutional efficacy, the balancing of tourism and conservation interests, and the "compensation for losses" to national park buffer zone communities. This evaluation takes place in the context of two popular Mongolian national parks--Hustai-Nuruu National Park, the *takhi* wildlife preserve, and Lake Hovsgol National Park in northern Mongolia. Finally, policy suggestions will be made in light of research findings.

VI. Methods

The three primary locations of this study were Hustai-Nuruu national park in Tuv *aimag*; Khatgal village, Lake Khovsgol National Park, Khovsgol *aimag;* and Ulaanbaatar, Mongolia. Ulaanbaatar was distinct from the two national parks in terms of character of the field work. Many Ministry of Environment and Green Development (MEGD) officials and employees of NGOs are based in Ulaanbaatar, and it is also the prime site in Mongolia for easy access to government documents, publications, and data relating to national parks and protected areas. Research in Ulaanbaatar consisted almost primarily of informational interviewing with public officials and NGO employees. Mr. Dashpurev the deputy director of the Hustai Trust, Mr. Galbadrakh Director of the Nature Conservancy, and T. Tuvshinbat at the Protected Areas office of MEGD were all interviewed in UB.

Hustai-Nuruu and Lake Hovsgol are two high profile Mongolian national parks. Hustai was founded in 1992 to reintroduce the wild Przewalski, or *takhi,* to its native Mongolia. At the time, *takhi* were extinct in the wild. On June 15th, 1992 the first 15 *takhi* were shipped from

Europe to begin building up the population in the wildlife reserve (Dashpurev, 2013). Today, there are roughly 300 horses living in Hustai-Nuruu. There are two other smaller *takhi* reintroduction projects in Mongolian protected areas, the first is *Takhin tal* reserve in Gobi Altai *aimag,* with a herd of approximately 100 horses; the other is a preserve run by a French NGO, *Khamin tal*, with a herd of 30-40 *takhi* (Dashpurev, 2013). Research was conducted in Hustai-Nuruu from November 8th, 2013 to November 10th 2013.

Lake Hovsgol national park was originally founded in 1986, while Mongolia was still under socialist rule, and its protection status was adapted to the new SPA system in 1994 (Tsendavaa, 2013). The protected area boundaries encircle the entirety of Lake Hovsgol, the second largest freshwater lake in the world, over 100 km long and 34 km wide at its widest point (Tsendavaa, 2013), its immediate shores to the west and a the mountainous tract of land to the east of the lake. (for details, see Appendix C) Research at Lake Hovsgol was conducted from November 17th to November 21st, 2013.

The line inquiry was made as streamlined as possible for both parks so that the study can be replicated with relative ease. Research methods in each park had three distinct legs: informational interviews, observational notes and community surveys. The informational interviews built off of knowledge gained from interviews with experts in Ulaanbaatar, but were geared towards the specific issues and functions of the national park. Interviews with T. Dashpurev, T. Tuvshinbat, D. Batjargaal, D. Davarbaaya, D. Urjinbadum and D. Baasandulam were formalized--a sit-down, scheduled affair that was audio-recorded and often transcribed for ease of researcher use. Other interviews were informal and off-the-cuff. These interviews often occurred with translators in the field. These are not audio recorded due to their spontaneity, but they are recorded in field notes. These informal interviews occurred with park biologist, Usukhjargal during his tour of Hustai-Nuruu, Tsendavaa, park employee at Lake Hovsgol and my translator, D. Galbadrakh, my advisor, and Jargoltuya, director of the Hustai Resort.

Community surveying was a valuable and necessary source of data to assess local community attitudes to the park. Formal and informal interviewing were inappropriate data collection tools because of the language barrier between the researcher and the community-members. The surveys were one-page long and five multiple choice questions geared to get a temperature reading of positive/negative attitudes relating to the park administration and overall

establishment and continued operations of the two national parks. For the English and Mongolian language versions, see Appendices E and F.

Community surveying was of particular value, as the displacement argument about protected areas in the realm of cultural anthropology has been critiqued for lack of real data and opinions from the people groups affected by protected areas (West, Igoe, & Brockington, 2006). Thus, claims about displacement and of protected areas being inherently oppressive institutions have neither been well substantiated nor have they been convincingly critiqued due to lack of information on the ground. The surveys, in their limited way, are an attempt to help bridge this gap of information, at least for the specific buffer zone communities near Hustai-Nuruu and Lake Hovsgol.

Finally, these two primary modes of research and information gathering have been supplemented by observational field notes. When visiting offices in UB, national parks offices, visitors centers, and the nature spaces in each of the parks I aimed to be an active observer, noting visual rhetoric, spatial realities and piecing together of information gathered from interviewing with the reality of the field from which the provided information and data derived. While this form of observational data is difficult to exhaustively document or substantiate, it provided valuable insight and understanding; without in-field observational notes the results and conclusions of the study may have been very different.

Limitations

Formal and informal interviewing has great strength in that it allows for the gathering of varied types of information in a short-time period and in a direct and efficient manner. For explorative study, which is indeed a significant element of this study, it provides enough flexibility to build an adequate conceptual framework for the topic--the interviewer can ask clarifying questions in real time of the interviewee, a luxury that is not present in simple literature review or data evaluation. Additionally, virtually all of the interviewees in this study were extremely generous with providing further contacts, data from their organization, and further literature for review. The weaknesses include the fact that there was some difficulty in encouraging many of the interviewees to be as specific as was necessary for the study. Some were merely unable to pull figures and statistics off the top of their head, which was easily remedied by the interviewee providing information on where to find exact facts and figures. Other times, though, interviewees were tempted to speak in generalities and abstractions, and it

sometimes took probing to gather information of real value. There was also the added difficulty of cross-cultural information gathering. Many interviews were conducted in the interviewees non-native language, and others were conducted via interpreter. This presented problems in that it was sometimes challenging to clearly ask in-depth questions, and to receive clear, detailed answers. It was clear in some interviews that the interviewee had very specific information that they wanted to convey, but could not find the words in English. The language barrier created some guesswork for the researcher, and it also made it difficult to refrain from asking leading questions when interviewees needed clarification.

The surveys presented their own set of limitations. Due to the nature of the study, research was conducted in rural and sometimes remote areas. Buffer zone populations are very spread out; Mongolia is one of the least densely-populated countries in the world. This was a particular issue at Hustai-Nuruu National Park, where the nearest bufferzone *soum* center was over 30 km from the research station. It at first appeared that, due to time and resource constraints, that there would be no way to access and survey people in the buffer zone community. However, park biologist Usukhjargal graciously offered to hand-out the surveys at Hustai's monthly wildlife count. This provided a survey sample, but also introduced a new set of problems. The Hustai survey sample consisted exclusively of park employees, whereas the Lake Hovsgol survey sample was much more diverse--participants included park employees, village shop-keepers, school teachers, herders, and part-time residents. There is the added issue that the Hustai employees received the survey from their employer, and may have felt pressure to give more positive responses about the park than they would have under different circumstances.

Despite these limitations, the data retains value. Although it may not be accurate or useful to directly compare the parks from survey responses, the surveying still contributes to the literature in that they are record of real opinions of individuals in buffer zone communities; these perspectives are recognized as lacking in any systematic academic study, especially in English language (West, Igoe, & Brockington, 2006).

VII. Results

Hustai-Nuruu National Park

Park charter and stated goals

The stated goal in Hustai Nuruu's 2011-2015 management plan is "to reintroduce the only remaining wild horse, the *takhi,* to the wild and build up a population of sufficient size to

survive in the wild in the future, and conserve the Park's ecosystems effectively at the local, national and international level," (HNP, 2011). The park highlights six distinct activities that it engages in to achieve this goal: Protection, ecosystem management, tourism, training and research, dissemination of information, and staff development. Hustai-Nuruu is also the only national park in Mongolia to have its own distinct and formalized buffer zone development plan and buffer zone development staff (Dashpurev, 2013).

Hustai-Nuruu is also the only national park, and one of a handful of protected areas in Mongolia, that is administered by an NGO and not by the central government. Originally, the *takhi* reintroduction project was administered by a Dutch NGO. In 2003, the Hustai Trust was established as a new NGO, consisting of stakeholders from international interests (especially the Dutch), the original NGO, the buffer zone community, MNET and the federal government, and an independent board chairman. The Hustai Trust was awarded the contract from MNET to administer and manage Hustai-Nuruu national park in 2003 (Dashpurev, 2013). Hustai-Nuruu receives no funding from the central government, and is wholly responsible for its own financing.

Financing, organizational, and governmental framework and issues

A table of the Hustai -Nuruu budget for 2010 can be found in Appendix D. Hustai Nuruu employs 59 salaried staff, 12 of which are seasonal summer staff. It is noted in the budget that it is impossible in their circumstances to project the budget further because of the instability of the *tugrig*. The overall goal of the Hustai Trust is to achieve financial self-sufficiency; 2013 is the first year that FRPH has removed all grant money from the Hustai project. As of 2010, tourism revenue covered 77% of total the Hustai Trust total expenditures. In the following two years, tourism revenue as proportion of revenue has hovered steadily around 80%. The stated goal for 2013 and 2014 is to bridge the 20 million tugrik gap left by the withdrawn grant/aid money (Jargatulya, 2013, Dashpurev, 2013). In addition to tourism activities, Hustai continues to receive funding from private research grants/operations. As an NGO Hustai is also open to private donations, and has innovated programs like "Give a name to a wild horse foal" which allows individuals to pay a park donation to the Trust to name a wild horse foal, and have that name recorded on the World Wild Horse list.

Hustai-Nuruu is unique in that it is the only Mongolian national parks administration that is wholly in control of tourist operations and accommodations. Hustai maintains one centrally

managed Tourist resort on the northern edge of the park. It consists of a ger camp, visitors center, souvenir shop, restaurant, and bar. Tourist camps in all other Mongolian national parks are subcontracted out to private businesses through the MEGD central protected areas office in Ulaanbaatar (T. Tuvshinbat, 2013, D. Galbadrakh, 2013). Hustai awards no such contracts within the park bounds, and opts to control its own tourist operations. This is not permitted by traditional, government operated and funded national parks, but is permitted through Hustai's special NGO status--in some sense a recognition of the fact that it receives no government funding. Hustai receives between 15,000 and 16,000 tourists annually. On average, 60% of visitors to Hustai Nuruu are foreigners. The vast majority visit in the June-August summer tourist season. During the first year of park operations it received about 200 visitors. These numbers grew steadily throughout the 1990's and early 2000's, and have plateaued at the current figures over the past five
years.

Environmental issues

Hustai-Nuruu is 95 km from Ulaanbaatar, making it one of the most easily accessible national parks from the capital city. For the most part, it is connected Ulaanbaatar by a paved road. The location of the national park was strategically chosen in 1992; relative proximity to Mongolia's major population center served to give it an edge both in attracting highly qualified research staff and in securing a profitable future in tourism (Usukhjargal, 2013). The 50,000 ha tract of land was originally public pastureland in the western range of the Khentii mountains, straddling the border of three *soums* in Tuv *aimag*--Altanbulag, Argalant, and Bayanhangai (HNMP, 2011). Pastureland degradation has become a major and widespread issue in Mongolia since the transition to a market economy in the early-1990's, and nowhere is this more true than in the areas immediately surrounding Ulaanbaatar. By contrast, Hustai-Nuruu's protected area status makes it both a refuge for wildlife and an area of pristine pastureland. Park biologists have expressed concerns about secure migration paths to and from Hustai-Nuruu for park wildlife like Mongolian gazelles and eventually for the *takhi* population (Usukhjargal, 2013).

Another environmental challenge stemming from Hustai's proximity to Ulaanbaatar is the pollution situation in the Tuul River Basin. Industrial and human waste has been unsustainably disposed into the Tuul River for decades, creating pollution conditions that worsen year-by-year for the river southwest of Ulaanbaatar. This directly affects the environment

of Hustai-Nuruu, as the Tuul river runs through the southwest of the park, putting further strain on already stressed water resources (Emerton, L., N. Erdenesaikhan, B. De Veen, D. Tsogoo, L. Janchivdorj, P. Suvd, B. Enkhtsetseg, G. Gandolgor, Ch. Dorisuren, D. Sainbayar, and A. Enkhbaatar, 2009). Hustai-Nuruu has already been deeply impacted by climate change trends. According to park reports, there were formerly 11 springs in the bounds of Hustai-Nuruu, and seven of these springs have all but disappeared (HNMP, 2011). Further, "according to research carried out over the last four years, the permafrost in Hustai-Nuruu has almost completely melted," (HNMP, 2011). These realities have created serious issues of water access for wildlife in the park.

At the outset of park operations, the Hustai-Nuruu Tourist resort and research facilities were located at the center of the park, at the core of the core zone. While operations were much more modest in the park's early years, the environmental impact prompted the administration to relocate tourist operations to the current border location. In 2012, a new research facility was built in the tourist resort, vacating the original research building and repurposing it as accommodations for visiting researchers (Usukhjargal, 2013). Even with these measures there are emerging concerns about the effects of human contact with the *takhi* population. First, there is a clamor to actually view the horses. Spring is the breeding season for *takhi,* and during this time the horses are especially wary of obtrusive tourists. In the summertime the horses retreat to the shade in the daytime, and are only visible by humans in the early morning and evening when the *takhi* go to their watering holes. During the winter, horses are docile, and do not retreat to higher elevations and mountain valleys for shade; this is the best time to view horses, but the time of least tourist activity. Finally, park biologists express real concern over the whole of the *takhi* viewing business. The horses do not display characteristic "wild" tendencies, and seem to be generally less afraid of humans than expected of the species. As a result of these concerns, new research will begin in 2014 to assess the impact of tourism on the *takhi* (Usukhjargal, 2013).

.

Bufferzone surveying

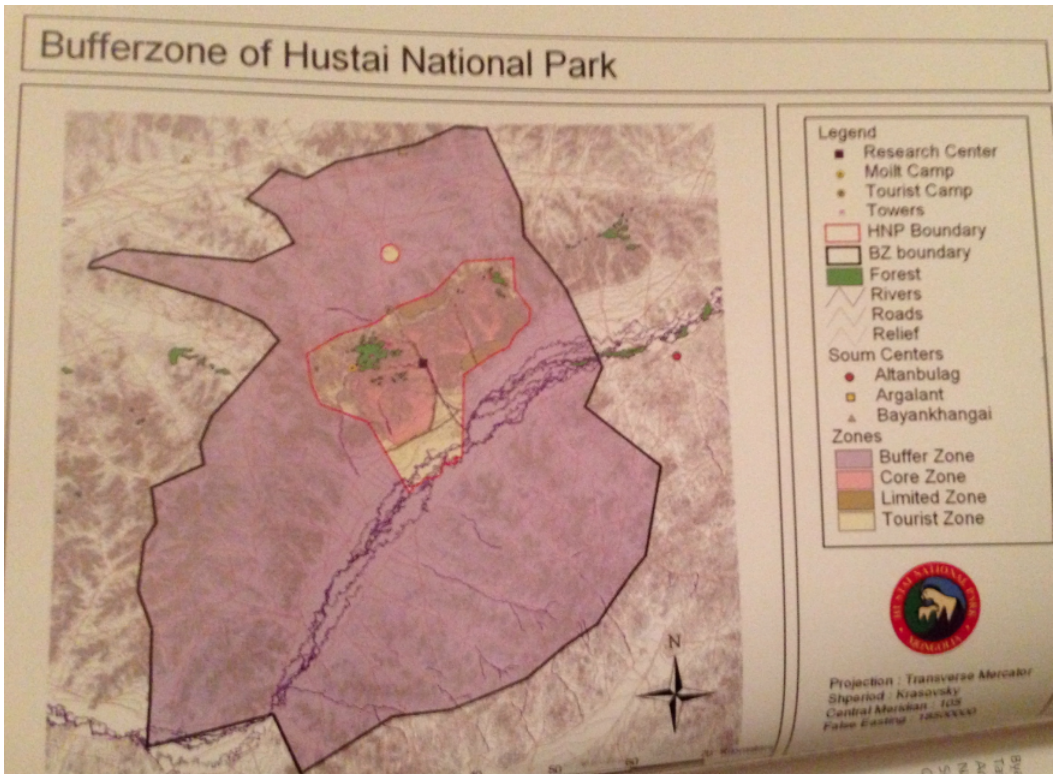


Figure 1 Hustai Nuruu park boundaries and its surrounding buffer zone (HNMP, 2011)

The buffer zone of Hustai-Nuruu consists of 349,700 ha of land, and portions of the three *soums* Altanbulag, Argalant, and Bayanhangai. The first Hustai Buffer zone Management Plan was written and approved by Tuv *aimag* authorities in 2005 (HNMP, 2011), and Hustai-Nuruu was the first and only park to develop a buffer zone development plan separate and distinct from its overall management plan. . There are officially established Buffer zone committees for each s*oum* and a Buffer Zone Development Fund (BZDF), controlled by bufferzone committees and with accumulated resources of over 400 million *tugrik* (HNMP, 2011). The Hustai Trust provides micro-loans to the people of the buffer zone communities at some of the lowest interest rates in Mongolia (Dashpurev, 2013). Finally, the Trust and the tourist resort helps to promote community-based tourism enterprises of local herder families. There are more than four families that live around the perimeter of the park, and offer accommodations and traditional Mongolian nomadic activities, such as horseback riding, archery, and wrestling. The park also encourages souvenir and felt-making operations and sells these local products at the tourist resort. These buffer zone practices are a major talking point for the trust, and their take on community-based tourism is indeed highly developed and organized.

As previously stated, the land bounded by Hustai Nuruu national park was previously shared pastureland of these three soum communities. The existence of the park was a burden and disadvantage to local people, in that a large tract of land was made unavailable to them and their herds, and also caused inconvenience in that the land is right at the center of the land that they continue to to utilize. During the time at the park, November 8th through the 10th, there were many domestic animals grazing in the park, some in limited use zones, but many also in the core zone of the national park. This reality has been acknowledged at all levels of the protected areas system--many admitting that the protected areas boundaries for grazing animals in particular often means little on the ground (T. Tuvshinbat, 2013).

The question to ask, then, is how local communities think about and relate to the park that usurped their pastureland just over twenty years ago. The surveys for Hustai-Nuruu bufferzone residents was targeted to ask if they were full or part time residents of the area, what percentage of their income was tied to park and tourism activities, if they were satisfied or dissatisfied with parks administration, and finally if they agreed with the statement, “Overall, the existence of Hustai Nuruu National Park is beneficial to me and my family.”

One must note that the data collection for the Hustai Nuruu bufferzone is inherently flawed, in that the only accessible population was a small, fairly homogenous group of Hustai Trust employees--mainly rangers and biologists. Responses may have reflected this reality. Out of 13 respondents, only one was not a full-time 9-12 month per year resident of the park. Two respondents were neutral in terms of satisfaction with park administration, all others stated that they were either satisfied or extremely satisfied with park administration. All respondents either agreed or strongly agreed with the statement “Overall, the existence of Hustai-Nuruu National Park is beneficial to me and my family.” The only truly diverse responses on the survey were the percentage of respondents income related to park and tourist activities, record of which can be found in Figures 2 and 3.

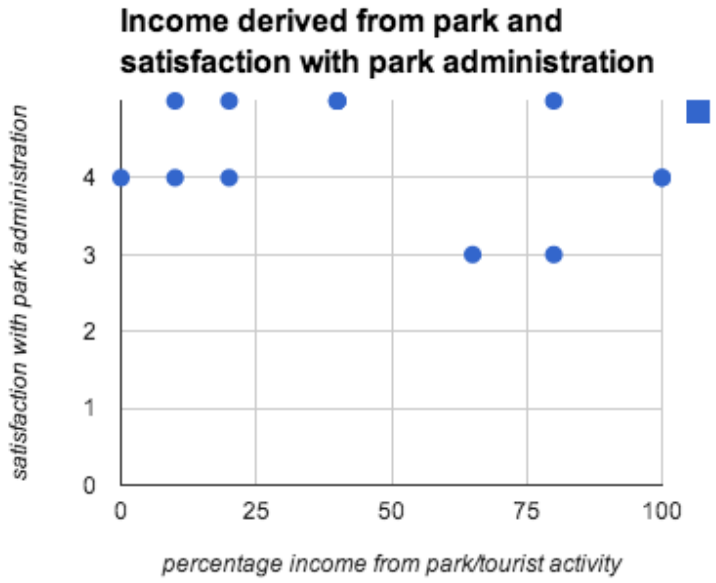


Figure 2: Percentage income from Hustai and satisfaction with park administration

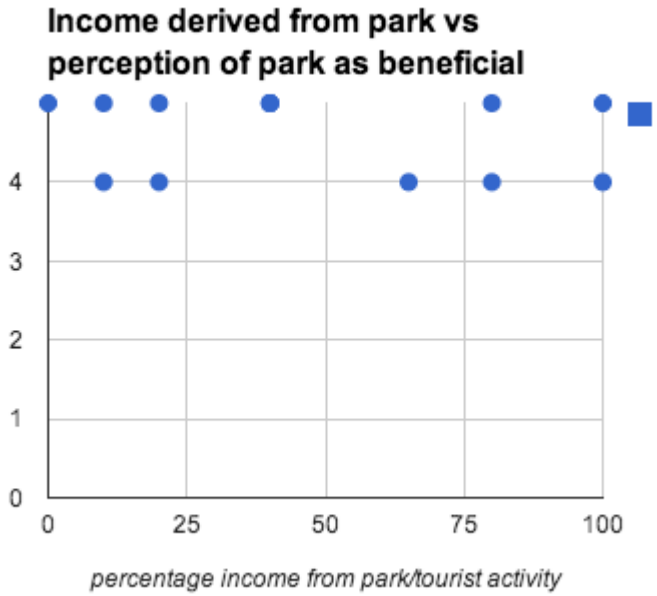


Figure 3: Income derived from park vs perception of park as beneficial

Figures 2 and 3 show the percentage of income related to Hustai-Nuruu national park operations for respondents measured against their satisfaction with the park operations, and perception of the park as being of personal benefit. There seems to be little to no correlation between income and attitudes towards park existence and operations, although there is a wider variance of responses for satisfaction with park administration.

Lake Hovsgol National Park

Park charter and stated goals

The main purpose of Lake Hovsgol National Park is stated as "to preserve and conserve in its original condition the specific traits of the natural zones, unique formations, rare and endangered plants and animals, historic and cultural monuments, and the natural beauty and to conduct and permit research in the form of scientific investigation and evaluation," (LKGMP, 2013). Significant stated goals for the next 25 years for the park include the maintenance of nomadic traditions that "reflects enduring and evolving traditions" (LKGMP, 2013), a broadening of available activities for park visitors, development of more advanced and multilingual park informational materials, development of both directive and interpretive road signage, broadening of the parks road and trail system, rigorous and clear commercial policies and enforcement, and the establishment of a variety of international agreements and partnership to raise the parks status on the world stage (LKGMP, 2013). The year 2013 marked the introduction of a new park management plan, the most important focus (as outlined by the park director) being "how to make nature well by well-managed tourism," (Davarbaaya, 2013).

Financing, organizational, and governmental framework and issues

Lake Hovsgol national park is financed and supported entirely by government funds. Approximately 90% of the budget is dedicated to staff salaries, and 10% of the budget is dedicated to projects and park operations. The national park employs 30 individuals--16 rangers and 14 in-office employees (Urjinbadam, 2013). Any funds the Lake Hovsgol administration generates goes directly to the national government. For example, during the summer tourist season there is a 3,000 *tugrik* per person park entrance fee. This fee does not go into park specific funds, but is rather sent back to the central revenue office via ticket numbers. So, unlike Hustai-Nuruu, Lake Hovsgol national park administration has virtually no revenue generating impetus or capacities (Tsendavaa, 2013).

In 2013, Lake Hovsgol received 28,761 individual domestic visitors and 3,690 foreign visitors (Urnjinbadam, 2013). Additionally, in recent years there have been marked increases in the number of domestic tourists to Hovsgol, which can be observed in Figure 4 (Urnjinbadam, 2013).

Figure 4: Domestic and foreign visitors of Lake Hovsgol since 2004.

The spike in domestic tourism in 2012 can be attributed to the celebrations of the 25th anniversary of the national park. The bars labeled гадаад represent domestic tourists, and the bars labeled дотоод represent domestic tourists. The vast majority of visitors stay near the southern shore of the lake and the village of Khatgal. Khankh, a similarly sized village to Khatgal, within the park bounds and on the far north shore of the lake receives significantly fewer visitors; it is about 120 km further north for most Mongolian visitors, and due to highly primitive road condition between Khatgal and Khankh, it can take up to 12 hours to travel that distance by car. In this extremely unpopulated area, on a lake that comparatively is one of the least human impacted in the world, the vast majority of human activity takes place on the southern shores.

Environmental issues

Hovsgol lake is an ancient freshwater lake--two million years old and containing one percent of the worlds freshwater. It is the only lake in the world surrounded on all sides by permafrost. It is also recognized internationally as an important research site for tracking climate change on aquatic and terrestrial ecosystems, and to assess the resilience of intact ecosystems because Lake Hovsgol sits at the intersection of diverse steppe, taiga, high mountain alpine forests, and tundra (LKGMP, 2013).

Lake Hovsgol is recognized as the cleanest freshwater lake in the world, but this status is threatened by growth in human activity (Tsendavaa, 2013). There is recorded and significant increases in water pollution on the southern shores of Lake Hovsgol, which can only be a result of human activity. The main polluting factors include manure from grazing domestic animals, and gasoline pollution from the burgeoning leisure boating operations on the lake (Galabadrakh, 2013, Tsendavaa, 2013). Litter is another widely recognized pollution problem at Hovsgol. Individual and group tent camping is permitted in the tourist zones of the park, but in recent years the park administration has introduced new camping regulations--campers cannot camp within 100 meters of the lakeshore, there is a trash-bag delivery and trash pick-up program being piloted in the park, in the fall of 2013 the most highly trafficked park roads have been repaired and improved, and fencing/barring has recently been installed around high-use shores to prevent vehicles from parking too near to the lake (Galabadrakh 2013, Tsendavaa, 2013). Tourist ger-camps were the original proposed solution to the environmental impacts of camping in the park, however there are complaints about a too-high concentration of ger camps on the southwest shore of the lake, which may be equally destructive to ecosystems as unsustainable camping practices (Galabadrakh, 2013).

Bufferzone surveying

There is no parallel buffer zone management plan at Lake Hovsgol national park to the system at Hustai-Nuruu national park, however buffer zone/community development is addressed in the Lake Hovsgol General Management Plan (LKGMP) and by park officials. Buffer zone committees and development funds do not exist at Lake Hovsgol, the parks administration has engaged in a series of community meetings, in both Khatgal and Khankh. The results of two meetings, one each in Khatgal and Khankh, are highlighted in the LKGMP. Of chief concern to local attendants of the meeting was the level and quality of enforcement of existing regulations concerning ger-camp lake distance regulations, illegal camping, and garbage and sewage removal. Community members also expressed a desire for all camping to be restricted to designated campgrounds. Issues of “enforcement” and “management” were high on the agenda, and community members expressed the opinion that there were too few rangers/inspectors to meet enforcement needs. There was also a desire for expansion in diversity of activities for visitors, and a more sophisticated system to disseminate information to both locals and visitors about the park (LKGMP, 2013).

Community surveying revealed mixed moods about Lake Hovsgol national park. The same questions were asked of Khatgal residents that were asked of survey participants in Hustai. Respondents answered questions pertaining to their park residency, the percentage of their income tied to park/tourism activities, their satisfaction with parks administration and if they agreed with the statement, "Overall, the existence of Hustai Nuruu National Park is beneficial to me and my family." There were a total of 25 respondents. In Figure 5 we find a loose positive correlation between percentage of income derived from park related activities, and the perception of the park as personally beneficial, although little to no direct income from the park did not prevent some respondents from strongly agreeing with the statement that the park was of personal benefit.

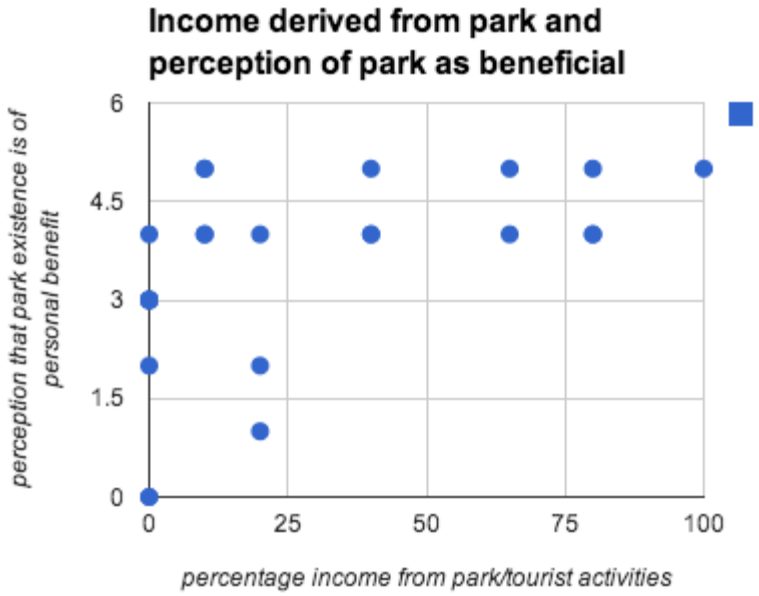


Figure 5: Income derived from park and perception of park as beneficial

However, we find no correlation between percentage of income derived from the park and level of satisfaction with park administration, as can be observed in Figure 6.

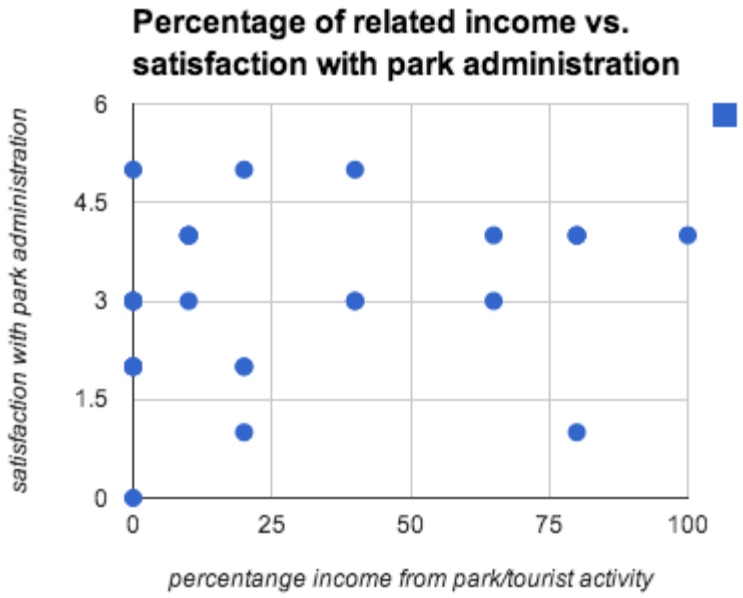


Figure 6: Percentage of related income vs. satisfaction with park administration

There is also no observable correlation between percentage of income derived from park *or* percentage of income derived from park and levels of satisfaction with park administration, as can be observed in Figures 5 and 6 . The right-weightedness of Figure 7 and the left-weightedness of Figure 8 reveal only that most surveyed residents spent eight or more months in the park buffer zone, and most respondents park-related income was below 50% of their total family income.

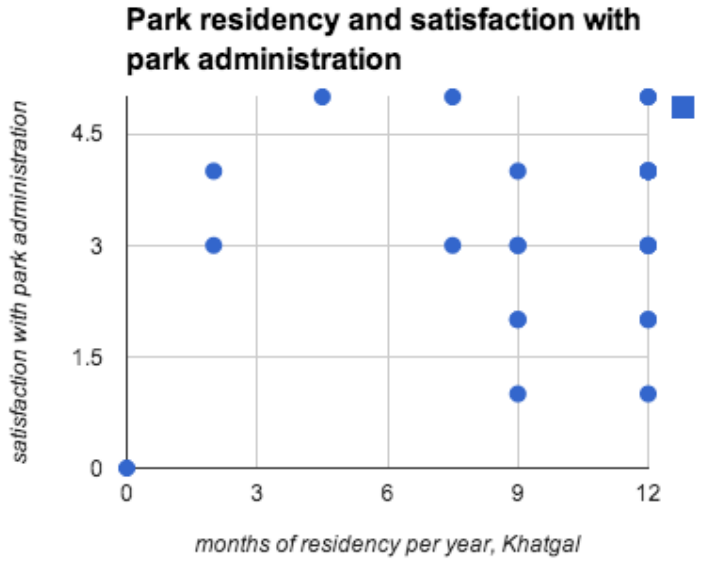


Figure 7: Park residency and satisfaction with park administration

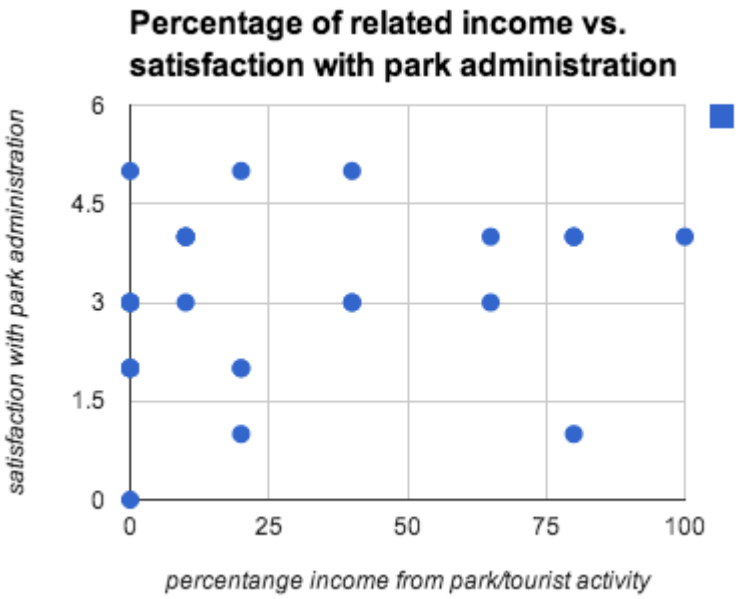


Figure 8: Percentage of related income vs. satisfaction with park administration

Finally, there was also no observable correlation between levels of satisfaction with parks administration, and perceptions of the park as personally beneficial, as demonstrated in Figure 9.

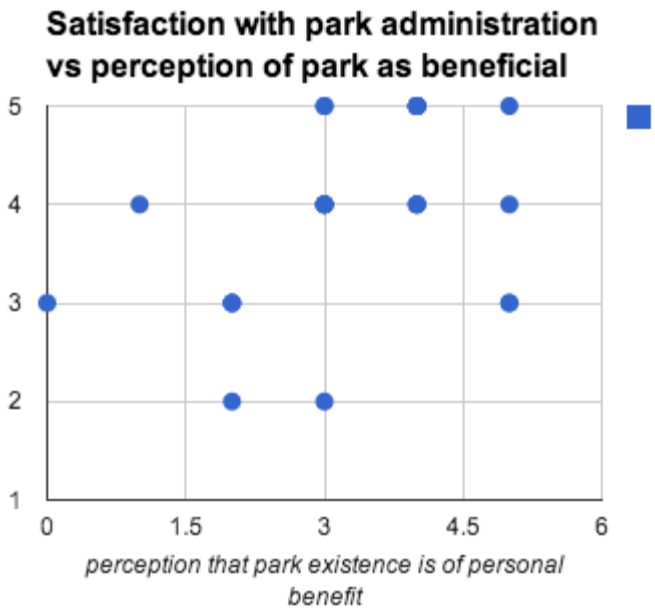


Figure 9: Satisfaction with park administration vs. perception of park as beneficial

VIII. Discussion

Benefits and shortcomings of NGO and governmental status

The major unifying theme confronting institutional efficacy at the two parks was the challenge of achieving all of the stated goals of the national parks in the context of limited funding. Still, the structural-financial realities at Hustai-Nuruu and Lake Hovsgol could hardly be more different. At the heart of the differences between the two parks is the difference between the Hustai Trust's status as an NGO, and Lake Hovsgol's status as a government organization.

A stated benefit of Hustai's NGO status is that the trust is free to make its own staffing decisions and is not subject to national politics influencing park employees (Dashpurev, 2013). At Hovsgol, there has been a high director turnover rate since the beginnings of the park, with 11 park directors serving since 1986, with an average term of just 2.54 years. National park directors are perceived to be subject to changing party control of the central government. This is an obvious advantage for Hustai. The ability to make staffing decisions within the organization means the ability to internally elect qualified long-term leadership. With high director turnover certainly comes an organizational learning curve, and can present challenges in formulating and implementing long-term goals for the national park. This is reflected in that many institutions in Hustai-Nuruu seem to be more embedded than at Lake Hovsgol, although leadership turnover cannot account for all of these factors. For example, Hustai-Nuruu has a more embedded and

consistent buffer zone development plan and policy. However, this can be less due to organizational leadership issues and be more related to the organization's ability to secure funding for buffer zone initiatives from international partners, in part by virtue of it's NGO status and background (Galabadrakh, 2013).

However, there is a notable disadvantage to Hustai-Nuruu's national park status in its total lack of access to government funding. While Lake Hovsgol has little incentive to promote tourist activity, the survival of Hustai-Nuruu depends on it being able to secure a steady flow of tourists. Such a direct dependence on tourist revenue creates some conflict with the park's conservation objectives. Some adverse effects of human activity in the *takhi* have already been observed and speculated about; if the 2014 research is concludes that human contact is detrimental to *takhi* the Hustai Trust will hardly have the leveraging power to restrict all tourists. High levels of tourist restriction would threaten the existence of the whole of the organization. The literature also questions the value of putting a blanket cap on tourist numbers, arguing that these measures come at very high costs to tourist freedom and overall experience with often dubious benefits to biophysical conditions (McCool and Lime 2001). Additionally, the character of tourist activities can be equally if not more significant than the sheer number of tourists visiting a protected area; important factors for consideration of tourism impact include the type of tourism development, season of peak use, and biophysical characteristics of the protected area (Eagles, McCool, & Stephen 2003).

The conflict between conservation and the impetus for tourism-based revenue is indeed neutralized in the legal status of the state managed national parks--they receive annual budgets from the central government, funded by the tax-base and in no way tied to tourist numbers. However, there are also issues with the Hovsgol financial model, the administration has no capacity to generate it's own revenue. The park administration does not retain revenue from its entrance fee, rather the money is credited back to the central government. With only 10% of the total annual budget going toward park operations, one would question Lake Hovsgol's ability to meet its own organizational goals of development of roads, trails and signage, the broadening of activities for park visitors, increased enforcement capacities, and multilingual park informational materials (LKGMP, 2013).

There does not seem to be any "right" way for a national park or protected area to structure and orient itself in civil society, but rather benefits and drawbacks to being both an

NGO and to being a governmental organization. Newly developing and forming protected areas in Mongolia are opting for both frameworks. The newly formed strictly protected area to the west of Lake Hovsgol is a traditional government organization, meanwhile this year the World Wildlife Fund (WWF) is taking management responsibilities for Toson Khulstai protected area in eastern Mongolia, under a contract similar to that of the Hustai Trust (Tuvshinbat, 2013).

Bufferzone surveys

The overall hypothesis in survey development was that there would be a positive correlation between percentage of respondents income related to park and tourism activities, and overall satisfaction with the park. This hypothesis was loosely supported by the survey results at Khatgal, Hovsgol. However, at both locations there seemed to be no correlation between permanence of residency and park satisfaction. Additionally, respondents were no less likely to see the park as personally beneficial if they expressed dissatisfaction with the park administration. Perceptions of the park as personally beneficial were overwhelmingly positive, with only two respondents out of 38 participants disagreeing with the statement "Overall, the existence of Hustai-Nuruu/Hovsgol national park is beneficial to me and my family". No respondents strongly disagreed with this statement.

The data would then suggest that there is broad-based buy-in to the protected area schema in Mongolia. According to the data set, if most buffer zone residents see the park as personally beneficial, it would follow that the primary lense for national park is not necessarily protected area as infringement on land use rights. However, it would be a significant error to draw bold, broad-based conclusions from this 38 person data set, especially due to the skewed nature of the respondent demographic at Hustai-Nuruu.

Hustai-Nuruu is unique inasmuch as it maintains a highly developed and functioning buffer zone development agenda. It is the only park in Mongolia to have professional staff dedicated to the buffer zone. Although Lake Hovsgol does not have formalized buffer zone documents, employees, or deeply embedded and highly formalized practices, the buffer zone community does not go unnoticed by park officials. In 2013 a series of meetings with locals in Khatgal and Khankh, and generated solid qualitative information on local stakeholder concerns that is consulted in policy formulation and implementation by park officials (Davarbaaya, 2013). In addition to the possible correlation between Hustai's NGO status affecting its ability to secure international bufferzone funding, there may be some correlation between the issues of long term

leadership at Hovsgol and other state-managed parks and the less-developed buffer zone strategies. The lack of institutional track-record pertaining to buffer zones could in-part be attributed to the high turnover of park directors.

Lake Hovsgol policy suggestions

For Lake Hovsgol specifically, the central environmental issue is that of human and tourism impact on the southwest shore. Rather than merely containing the damage to the lake at the south shore, the park should continue to implement a policy of environmental restoration in the heavy-use tourist zones. Additionally, further tourist camps permits should not be given to new developers on the southwest shore. Rather, any additional ger camps should be strategically placed throughout the parks tourist zones, following the development of new roads in the park (LKGMP, 2013) to minimize habitat impact. Further spread out ger camps in the tourist zone will improve visitor experience while minimizing human impact in the form of concentration of noise and physical pollution.

Lake Hovsgol national park is currently developing new boating regulations. Many tour operators operate outdated motorboats on the lake, and the incidence of gas leaks on the lake has increased in recent years (Tsendavaa, 2013). One policy in development bans any motorboat that is more than 20 years old from operating on the water. Boating is a relatively new and foreign phenomena for Mongolia (Tsendavaa, 2013). This presents a unique opportunity for parks administration and tour operators. Currently there are only four kayaks in the the town of Khatgal available for visitors to rent. The promotion of kayak, stand-up-paddle-board and canoe use on the lake, possibly even to the total exclusion of motorboats, could serve to develop an eco-friendly boating culture in Mongolia, and also begin to remedy current pollution issues on Lake Hovsgol. Through initiatives educating the public on kayak and canoe use, and encouraging tour operators to invest in the inexpensive equipment, Lake Hovsgol National Park could constructively shape and influence the boating culture in Mongolia and at Lake Hovsgol.

Hustai-Nuruu policy suggestions

Hustai-Nuruu maintains consistent, effective, and time-tested management practices. However, security of park funding is a continuous stressor for park employees. The 2013 fiscal year will be a major year to reveal if the Hustai Trust NGO model is a financially self-sustaining enterprise. The following years will also be telling in the results of the study on the levels of human tourist impact on the *takhi.* Due to the inherent conflict between conservation objectives

of the park, and the possible future pressures of increasing tourist volume, it may behoove the Hustai Trust to seek out diversified sources of funding. It could be found in the future that it is best for the park to further restrict tourist numbers or the character of tourist activities in the park, and thus seek diverse funding sources not based on visiting tourist numbers. It may also be found that tourists have little to no impact on the *takhi,* and that the expansion of tourist activities, in the form of expansion of the tourist center or the development of roads and trails to make the park more accessible, is actually the best future course of action for Hustai-Nuruu. Financial and scientific data in the following years will serve to better focus policy questions and suggestions.

IX. Conclusions

For further study

Surveying of buffer zone communities could very well be expanded and broadened. A survey sample of 38 is simply too small to call any findings conclusive. There is room for further questions to include in quantitative surveys as well, such as inquiries as to whether respondents experience land use restrictions from national parks, and whether they consider these restrictions a great hardship. Questions as to whether buffer zone residents have participated in or benefited from buffer zone development projects would also shed much light on the status of buffer zone communities. Finally, to give more voice to the people of buffer zone communities in the anthropological literature surrounding buffer zones, it could be worthwhile to conduct in-depth qualitative interviews with buffer zone residents, especially working in a multi-generational framework, so as to gain the perspectives of individuals that witnessed the founding of the national park in their area of residence. The ultimate goal of further surveying would be to discern whether there is indeed broad-based buy in and support for the protected areas schema by Mongolians, as it manifests in Mongolia.

Mongolia has a standing goal to designate 30% of the nation's landmass as protected area, first articulated by a former Mongolian president at the UN Rio conference in the 1990's. Throughout the research, it was common to come across mention of newly created protected areas under various governmental and non-governmental jurisdictions. It would be worthwhile to do a case-study into an emerging protected area in Mongolia, to trace the formation and development of protected areas in contemporary Mongolia, and to examine the framework of conservation that influences policy-making.

Finally, many park rangers were surveyed and one was interviewed through the course of the research. Much mention was made of park rangers by interviewees, and their work is considered indispensable to the protected areas system. Rangers in Hustai-Nuruu, Lake Hovsgol, and most Mongolian protected areas live in their area of jurisdiction (Tsendavaa, Usukhjargal, 2013). Additionally most of them are not college educated, but are locals of the area where they work, in high demand for the position because locals are believed to be best acquainted with the land (Usukhjargal, 2013). A major role of a protected areas ranger is to enforce hunting regulations. Multiple interviewees have spoken about their understanding of the ranger job as particularly dangerous (Usukhjargal, Galabadrakh, 2013). They are known to have their lives threatened in the field by illegal hunters, and the ranger interviewed relayed a story of his friend being stabbed in the chest by illegal hunters (Batjargaal, 2013). Further study into either the policy and enforcement realm of the rangers work, or research in the realms of sociology or social anthropology may be warranted, and a welcome addition to the literature.

Conclusions and significance of the study

The Mongolian national parks, and more broadly the protected areas system, is a vigorous and well established presence in Mongolia. Protected areas and their buffer zones have a high quality legal framework, and by all measures in this study seem to do much more good than harm in rural and buffer zone communities. Although protected areas and national parks restrict traditional access to pastoral communities, there is a clear legal framework for the compensation of losses for buffer zone communities. Buffer zone activities and practices in individual parks still need to be strengthened and improved, especially in state-managed protected areas, where it is common to suffer from lack of funding and high director and staff turnover rates.

Hustai-Nuruu and Lake Hovsgol both suffer from funding shortfalls and uncertainties, but this seems to be a common state of affairs for protected areas worldwide. Both parks manage to effectively implement conservation objectives despite these challenges. Hustai-Nuruu is affected by issues of climate change, water scarcity, and water pollution, all human impact issues not directly related to park operations and therefore difficult for the park to manage and effect. One of the most reasonable ways for the Hustai Trust to engage environmental degradation issues may be through public activism and participation awareness campaigns, as well as engagement in and facilitation of further research. Due to the low-population density and relative

isolation of Lake Hovsgol, human impact issues are limited and almost exclusively directly related to park tourism. Thus, Lake Hovsgol national park administration can do much to positively affect the environmental conditions within its bounds. This includes sustainable tourism planning, restoration of the southwest shore that is heavily-impacted by tourism. Finally, Lake Hovsgol can promote and develop eco-friendly boating practices.

As for the question of protected areas being inherently oppressive institutions in that they restrict local, traditional access to grazing lands, this seems to be of little relevance in the Mongolian context. In the surveys, there was a notably higher rate of administration dissatisfaction than negative opinions about the park influence on individual lives. No respondents indicated that they were *both* dissatisfied with park administration *and* that they disagreed the park was personally beneficial. This suggests that grievances with protected areas come from a place of engagement in protected area goals and objectives. It stands to argue that in the current context of mining development, protected areas are actually crucial to Mongolian ecosystems. Mining exploration permits and full fledged mining operations also serve to displace rural populations, but also damage and change surrounding ecosystems. The reality of contemporary Mongolia is that there will be certain levels of displacement; the protected areas system contributes to displacement but also to environmental conservation and historic preservation. Much like the mining industry, protected areas do not seem to be going away soon, and with the surrounding economic, industrial, and ecological realities, this seems to be an overwhelmingly positive institution.

For just over twenty years of existence, the still growing Mongolian protected areas system is well established and and growing. There are continuous innovations in management planning and training, and the parks have real people working continuously on issues of policy development and redevelopment, park improvements, and policy enforcement. While the protected areas system and national park faces varied and complex challenges in funding, the balancing of bufferzone, conservation and tourism interests, it is an institution well positioned to engage these challenges and extend and revive conservation practices in Mongolia in the years to come.

X. Bibliography

Baasandulam D. (2013, November 20). Interview by K. Wurts [Lake Hovsgol National Park]

Badmased, D. (2012). *Wetland management and waterbird conservation of mongol daguur strictly protected area and buffer zone, mongolia*. Jds international seminar. Retrieved from http://www.envr.tsukuba.ac.jp/~jds/pdf/2012Seminar_presentation/Delgermaa.pdf

Bandi, N. Hustai Trust, (2011). *Management plan of the hustai national park*. Ulaanbaatar, MN: United Nations Environment Programme, Intenational Union for the Conservation of Nature.

Batjargaal. D. (2013, November 19). Interview by K. Wurts [Lake Hovsgol National Park].

Campi, A. (2000). Special protected areas of mongolia.*Mongolian and tibetan affairs commission*.

Dashpurev, T. (2013, November 07). Interview by K. Wurts [Hustai-Nuruu National Park].

Davarabaaya, D. (2013, November 19). Interview by K. Wurts [Lake Hovsgol National Park]

Eagles, P., McCool, J., & Stephen, F. (2003). *Tourism in national parks and protected areas: Planning and management*. Cambridge, MA USA: CABI Publishing.

Emerton, L., N. Erdenesaikhan, B. De Veen, D. Tsogoo, L. Janchivdorj, P. Suvd, B. Enkhtsetseg, G. Gandolgor, Ch. Dorisuren, D. Sainbayar, and A. Enkhbaatar. 2009. The Economic Value of the Upper Tuul Ecosystem. Mongolia Discussion Papers, East Asia and Pacific Sustainable Development Department. Washington, D.C.: World Bank.

Galabadrakh, D. (2013, November 25, 29). Interview by K. Wurts [The Nature Conservancy Mongolia]

International Union for the Conservation of Nature, (2009).*Mongolian law on special protected areas and law on bufferzones: review, comments, and recommendations*

Jargoltuya. (2013, November 9). Interview by K. Wurts [Hustai Nuruu National Park]

Kaczensky, P. (2005). First assesment of nomrog and dornod mongol strictly protected areas in the eastern steppe of mongolia for the re-introduction of przewalski's horses. *International Takhi Group*,

Law of mongolia on bufferzones. In (2008). *Compendium of laws: A mongolian citizens reference book*. Ulaanbaatar, MN: The Asia Foundation: Securing Our Future Program.

Law of mongolia on special protected areas. In (2008). *Compendium of laws: A mongolian citizens reference book*. Ulaanbaatar, MN: The Asia Foundation: Securing Our Future Program.

Ministry of Nature, Environment, and Green Development, Lake Hovsgol National Park. (2013). *Lake hovsgol national park: General management plan 2013 foundation document* Mongol Ecology Center.

Ministry of Nature, Environment, and Green Development, Lake Hovsgol National Park. (2013). *Lake hovsgol national park: General management plan 2013 transportation section* Mongol Ecology Center.

Ministry of Nature, Environment, and Green Development, Dept. Protected Areas National Park -Gobi B. (2010). *The management plan of great gobi 'b' strictly protected area and alagkhairkhan nature reserve*. Ulaanbaatar, MN:

Oyun, S. (2013, October). *Ministry of nature, environment, and green development Q&A session.* Lecture conducted in Ulaanbaatar, Mongolia.

Scully, M. (2000). The struggle to protect a pristine mongolian lake. *The Chronicle of higher education*,*46*(29),

Sterner, T., & Coria, J. (2012). *Policy instruments for environmental and natural resource management*. (2nd ed.). New York, NY: RFF Press.

Sukhtulga, Ts. (2013, October). *Protected areas of Mongolia.* Lecture conducted in Ulaanbaatar , Mongolia

Tsendavaa, N. (2013, November 19-21). Interview by K. Wurts [Lake Hovsgol National Park]

Tuvshinbat, T. (2013, November 11). Interview by K. Wurts [Ministry of Nature and Environment Department of Special Protected Areas].

Urjinbadum D. (2013, November 19). Interview by K. Wurts [Lake Hovsgol National Park]

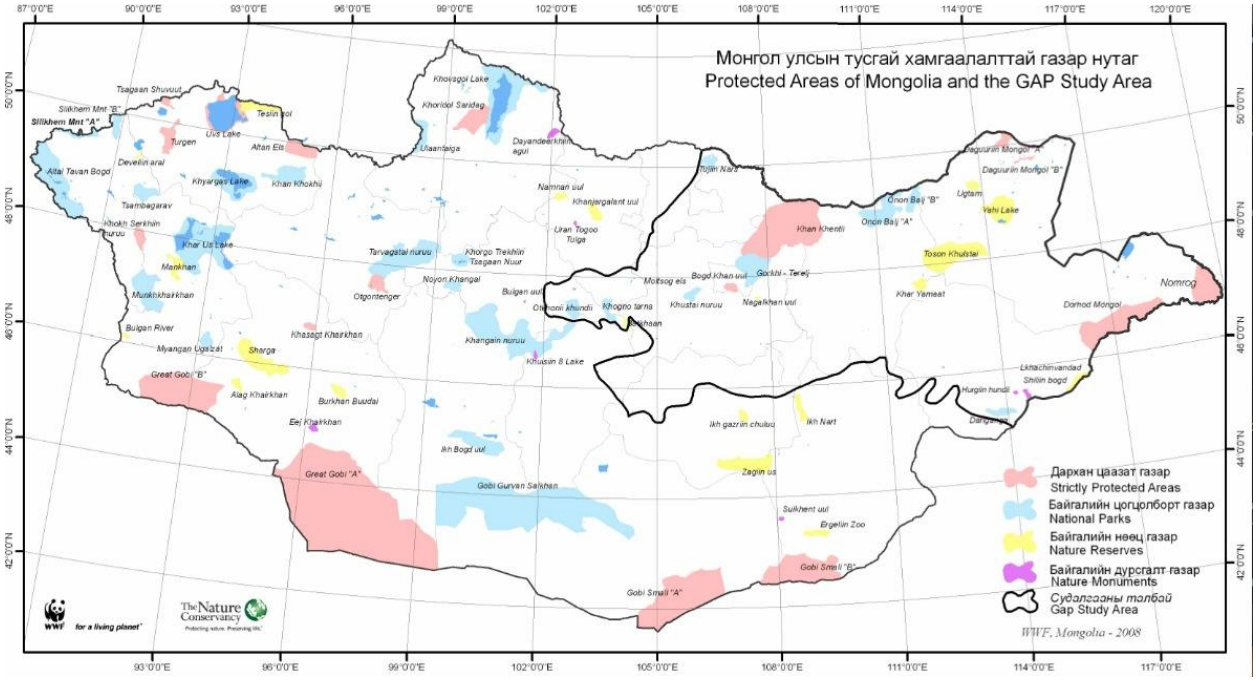
Usukhjargal. (2013, November 9). Interview by K. Wurts [Hustai-Nuruu National Park]

West, P., Igoe, J., & Brockington, D. (2006). Parks and peoples:the social impacts of protected areas. *The Annual Review of Anthropology*.

World Wildlife Fund, Mongolia Programme Office. (2009).*Assessment on implementation and status of phase first of the national program on protected areas in mongolia*. Ulaanbaatar, MN:

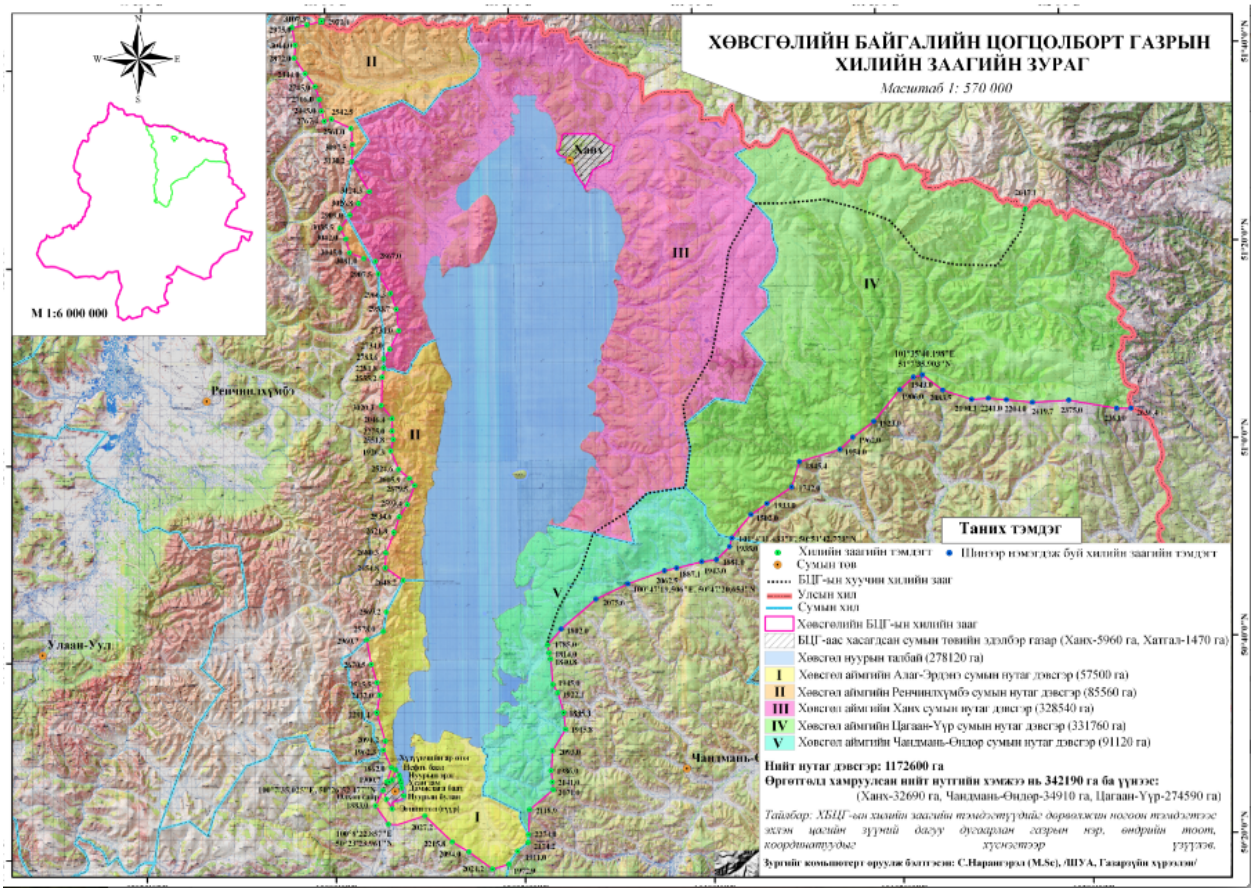
XI. Appendices

Appendix A: Map of Mongolian protected areas



Appendix B: Hustai-Nuruu map

Appendix C: Lake Hovsgol Map



Appendix D: Hustai Trust 2010 budget

Income (tugrig)	
1. Tourism	400 million
2. Training and research	30 million
3. Economic activities (bar, shop)	50 million
1. Donation, subsidies	25 million (FRPH subsidises 20 million/year)
2. Others	15 million
Total	520 million

Expenditure	Tugrig
Administration 1. Staff salaries 2. Means of transport 1. Maintenance and depreciation 2. Running expenses 3. Information and dissemination 4. Tax, award, allowances **Total:**	 40 million 30 million 25 million 25 million 1 million 25 million **146 million**
Protection unit 1. Activity expenses 2. Biotechnological measures **Total:**	 36 million 15 million 4 million **55 million**
Research and Training Center 1. Salaries 2. Equipment 3. Books and other publications 4. Operational expenditures **Total**	 30 million 2 million 1 million 15 million **48 million**
Tourism unit 1. Salaries 2. Equipment, properties 3. Materials	 80 million 10 million 5 million 90 million

4. Foodstuffs 5. Other operational expenses **Total**	20 million **205 million**
Buffer zone 1. Salaries 2. Operational expenses **Total**	 21 million 20 million **41 million**
Contingency budget	20 million
Grand total	515 million

Appendix E: English language text of buffer zone survey

Livelihoods survey for residents of Mongolian national parks buffer zones

This survey is being distributed for the Independent Study Project (ISP) of Kieryn Wurts, Fall 2013 student at the School for International Training (SIT) - Mongolia. This project will explore current realities of the national parks system in Mongolia, using Hustai-Nuruu and Lake Khovsgol national park as case studies. This survey aims to explore local buffer zones residents' attitudes about national parks, and also residents' involvement with the national park.

Participation in this survey is totally voluntary and completely anonymous. If you do not feel comfortable answering one or more questions, you are free to leave the field blank. Answering questions and returning the survey implies that you consent to its use for research. If you have any questions, feel free to contact Kieryn Wurts by phone, 94821737 or by email kierynwurts@yahoo.com

Circle the answer that applies to you:

1. Are you a permanent or part time resident of the Hustai-Nuruu/Lake Hovsgol buffer zone?
    a. Permanent
    b. Part-time
2. If you are a part-time resident of the Hustai-Nuruu/Lake Hovsgol buffer zone, how many months per year to you reside here
    a. 1-3 months per year
    b. 3-6 months per year
    c. 6-9 months per year
    d. 9 or more months per year
4. How much of your families income comes from activities related to Hustai-Nuruu/Lake Hovsgol National Park (sale of souvenirs, tourism activities and accommodations, parks employment etc)?
    a. 0%
    b. <10%
    c. 10% - 30%
    d. 30% - 50%
    e. 50%-80%
    f. >80%
    g. 100%

Overall, how satisfied are you with the administration and operations of Hustai Nuruu/Lake Hovsgol National Park?
    a. extremely satisfied
    b. satisfied
    c. neutral
    d. dissatisfied
    e. extremely dissatisfied

Do you agree or disagree with this statement? “Overall, the existence of Hustai Nuruu/Lake Hovsgol National Park is beneficial to me and my family?

a. strongly agree
b. agree
c. Neutral
d. disagree
e. strongly disagree

Appendix F: Mongolian language text of buffer zone survey

Монголын байгалийн цогцолборт газрын нөөц бүсийн оршин суугчдад тавих амьжиргааны санал асуулга

Энэхүү санал асуулга нь Монгол дахь Олон Улсын Сургалт Сургуулийн 2013 оны намрын элсэлтийн оюутан Киерэн Вуртсын бие даалтын судалгаанд хувь нэмэр оруулж байгаа юм.

Энэ бие даалт нь Монгол улсын байгалийн цогцолборт газрын тогтолцоон дахь бодит байдлыг Хустай болон Хөвгөл Нуур байгалийн цогцолборт газрыг судлагдахуун болгон судласан болно. Мөн нөөц (завсрын) бүсэд амьдрах оршин суугчдын байгалийн цогцолбор газарт хандах хандлага болон оролцоог судлахыг зорьж байгаа юм. Санал асуулгад оролцох нь сайн дурын үндсэн дээр бөгөөд нэр бичигдэхгүй байх болно. Зарим нэг асуултанд хариулахгүй хүсэхгүй байвал тэрхүү хэсгийг хоосон орхиж болно. Асуултуудад хариулж санал асуулгад оролцох нь энэ судалгааг ашиглаж болохыг та зөвшөөрч байна гэсэн үг юм. Танд ямар нэг асуулт байвал 94821797 гэсэн утсаар болон kierynwurts@yahoo.com цахим хаягаар надтай холбогдож болно.

Хариулж буй асуултын хариултыг дугуйлна уу.

1. байгалийн цогцолборт газрын нөөц (завсрын) бүсэд та байнгын оршин суугч уу түр оршин суугч уу?

а. Байнгын

б. Түр

2. Хэрэв та түр оршин суугч бол жилд хэр удаан Хөвсгөл нуур/Хустайн нуруу нөөц бүсэд амьдардаг вэ?

а. Жилд 1-3 сар

б. Жилд 3-6 сар

в. Жилд 6-9 сар

г. 9-өөс дээш сар

3. Хөвсгөл нуур/Хустайн нуруу байгалийн цогцолборт газрын үйл ажиллагаа танай өрхийн орлогын хэдэн хувийг бүрдүүлдэг вэ? (Бэлэг дурсгалын зүйлс худалдах, аялал жуулчлалын үйл ажиллагаа, байр сууц, Хустайн хөдөлмөр эрхлэлтээс)

а. 0%

б. 10%-аас багагүй

в. 10-30%

г. 30-50%

д. 50-80%

е. 80%-аас багагүйх

ё. 100%

3. Хөвсгөл нуур/Хустайн нуруу байгалийн цогцолборт газрын удирдлага болон үйл ажиллагаанд та хэр сэтгэл хангалуун байдаг вэ?

а. Бүрэн дүүрэн сэтгэл хангалуун

б. Сэтгэл хангалуун

в. Дундаж

г. Сэтгэл хангалуун бус

д. Туйлын сэтгэл хангалуун бус

Та дараах тодорхойлолтыг зөвшөөрч байна уу эс зөвшөөрч байна уу? Хөвсгөл нуур/Хустайн нуруу байгалийн цогцолборт газар байгаа нь надад болодд миний гэр бүлд ашиг тустай байдаг.

а. Бүрэн санал нийлж байна

б. Санал нийлж байна

в. Төвийг сахисан

г. Санал нийлэхгүй байна

д. Огт санал нийлэхгүй байна