

Management structure of the two oldest and largest protected areas in the Mongolian Gobi

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Abstract

This study examined the strengths and weaknesses of the management structure of the two Great Gobi Strictly Protected Areas (SPAs) in southwestern Mongolia. This evaluation was conducted as part of preparing the nomination dossier for designation as a World Heritage site. We employed a qualitative approach, conducting interviews with employees of SPAs and NGOs involved in management and conservation efforts within the Great Gobi SPAs. Additionally, we utilized participant observation to collect supplementary data and build rapport with the interviewees and reviewed internal strategic documents. Conceptionally, we used the Seven S-model to analyse the strategy, structure, systems, staff, skills, leadership style, and shared values of the organizations.

Our results suggested that the great strength of the Great Gobi management are the shared values, expressed as the shared passion for nature conservation. The main strength for Great Gobi B SPA lies in communication and teamwork. Long-term support by the International Takhi Group NGO provides expertise and opportunities but also creates dependencies. Recruitment of staff is challenging due to the remote location of the administration centre far from the next district centre.

In comparison, Great Gobi A SPA excels in staff management, with a very clear organizational structure and clear operational job descriptions which makes it easy to assign work and get results. The administration is in a district centre and takes a very active approach to recruiting, by seeking out high school students around the park and providing them with opportunities to pursue higher education. However, the extremely large size and limited budget of the SPA is challenging, and leadership could potentially be further improved by being more participatory.

Keywords: Great Gobi Strictly Protected Areas, Seven S-model, Management, Mongolia

1. Introduction

Around the globe, protected areas (PAs) face many challenges like climate change, invasive species, land degradation, poaching, human-wildlife conflicts, and human-human conflicts with local communities (Stolton & Dudley, 2010). In response, governments have established protected area management structures which aim to support conservation and community welfare (Legalinfo, 2017). Effective management requires a clear strategy, operational planning, and a well-defined organizational structure. Strategic planning ensures long-term conservation goals, while tactical and operational plans help implement these objectives (Worboys & Trzyna, 2015). Organizational structure, which defines labor division, power, and coordination, is also crucial for success (Eppink et al., 2011).

Mintzberg (1980) identified five organizational structures, and the concept of holacracy, which emphasizes self-organizing teams, which offer a high degree of flexibility (Rud, 2009). Laloux's Culture Model (2014) also outlines five maturity levels, with self-management replacing hierarchy at higher levels. Organizational culture, which impacts employee performance, is another critical component (Shahzad et al., 2012). Trompenaars and Hampden-Turner (1994) developed a model of culture with explicit and implicit layers, while Waterman et al. (1980) introduced the Seven S-model, highlighting seven areas: shared values, structure, systems, skills, strategy, style, and staff, that must work together to improve organizational effectiveness (Zincir & Tunç, 2020).

Structure refers to the way an organization is structured and who reports to whom (Waterman, et, al. 1980). The organizational structure matters because it effects the way a company performs (Zincir & Tunç, 2020). Strategy is a plan aiming to maintain and build a competitive advantage over the competition (Waterman, et, al. 1980). System refers to the daily activities and procedures that staff members perform to make an organisation run (Waterman, et, al. 1980). Staff are a crucial aspect, and companies should consider staff and their general capability and potential (Zincir & Tunç, 2020). Skill focuses on the actual skills and competencies of the organisation's personnel (Waterman, et, al. 1980). Finally, style refers to the leadership style of an organisation (Waterman, et, al. 1980). The choice of a leader is influenced by culture, values, beliefs, norms, and traditions (Zincir & Tunç, 2020).

In Mongolia, the administrations of the two largest and oldest Strictly Protected Areas (SPAs) - Great Gobi A and Great Gobi B - operate under markedly different conditions. The administration of Great Gobi A is situated in the village Bayantooroi. Conversely, the administration of Great Gobi B is based in Takhiin Tal, a remote location at the border of the protected area, characterized by a lack of infrastructure. These contrasting contexts underscore the complexities involved in managing SPAs, which are tasked not only with biodiversity conservation but also with broader socio-economic responsibilities. According to Mongolian law, SPAs are primarily designated for the protection of biodiversity (Legalinfo, 2017), yet they are also expected to enhance local livelihoods and contribute to national economic development through activities such as ecotourism (Stolton & Dudley, 2010).

Given that both Great Gobi B and Great Gobi A are currently nominated for World Heritage designation, a better understanding of their respective management strategies and challenges presents a valuable case study. Evaluating their approaches to balancing conservation efforts with socio-economic considerations can provide critical insights into best practices for SPA governance in Mongolia and beyond. We chose a deductive approach by using a theoretical framework to start investigating relevant concepts to save time and prevent uncertainty during initial fieldwork (Yin,

2015). The results are based on subjective reflections of interview partners and own observations of the authors and are therefore a snap-shot assessment of the perceived management situation, rather than a formal assessment (Namsrai et al. 2025). The subjective conclusions drawn and suggestions made are meant to provide a stimulus for discussions and further reflections from an external observer guided by the Seven S framework. They are not meant to criticize SPA staff or SPA organisation who are doing an amazing job under difficult conditions to protect Mongolia's natural heritage.

2. Study area

In 1975, the Great Gobi Strictly Protected Area (SPA) was established with two sections separated in space ("A" for the larger eastern part located in the Transaltai Gobi and "B" for the smaller part in the west located in the Dzungarian Gobi) but operated under a single administration based in Bayantooroi, Gobi-Altai province. The protected area administration was officially established on July 1, 1975, in the center of Khaliun district, Gobi-Altai province, under the name "Great Gobi Strictly Protected Area Biotechnical Station," with a staff of 7.5 positions. At the time of its establishment, the Great Gobi SPA covered 56,000 square kilometers, making it the largest protected terrestrial ecosystem in the world. In 1991, the Great Gobi SPA was also designated as a UNESCO Man and the Biosphere (MAB) Reserve.

In 1992, the reintroduction of the "extinct in the wild" (EW) Przewalski's horse (*Equus ferus przewalskii*) began in Great Gobi B (King et al. 2015). In 2009, the administration for the two parts of the Great Gobi SPA was separated and an additional and independent administration was established for Great Gobi B at Takhiin Tal, where the re-introduction facilities had been established. In 2019, Great Gobi B was expanded from its original 9,000 km² to 18,000 km². In 2023 the new internal zoning, and in 2024, the new buffer zone of the expanded Great Gobi B was approved. The main administration is located at Takhiin Tal camp, but there are plans to move the administration to Altai, a district centre at the edge of Great Gobi B further to the west (Fig. 1).

Great Gobi A is even bigger than Great Gobi B and covers an area of 46,000 km². The size, internal zoning, and buffer zone has not changed since the initial establishment and the administration remains located in Bayantooroi.

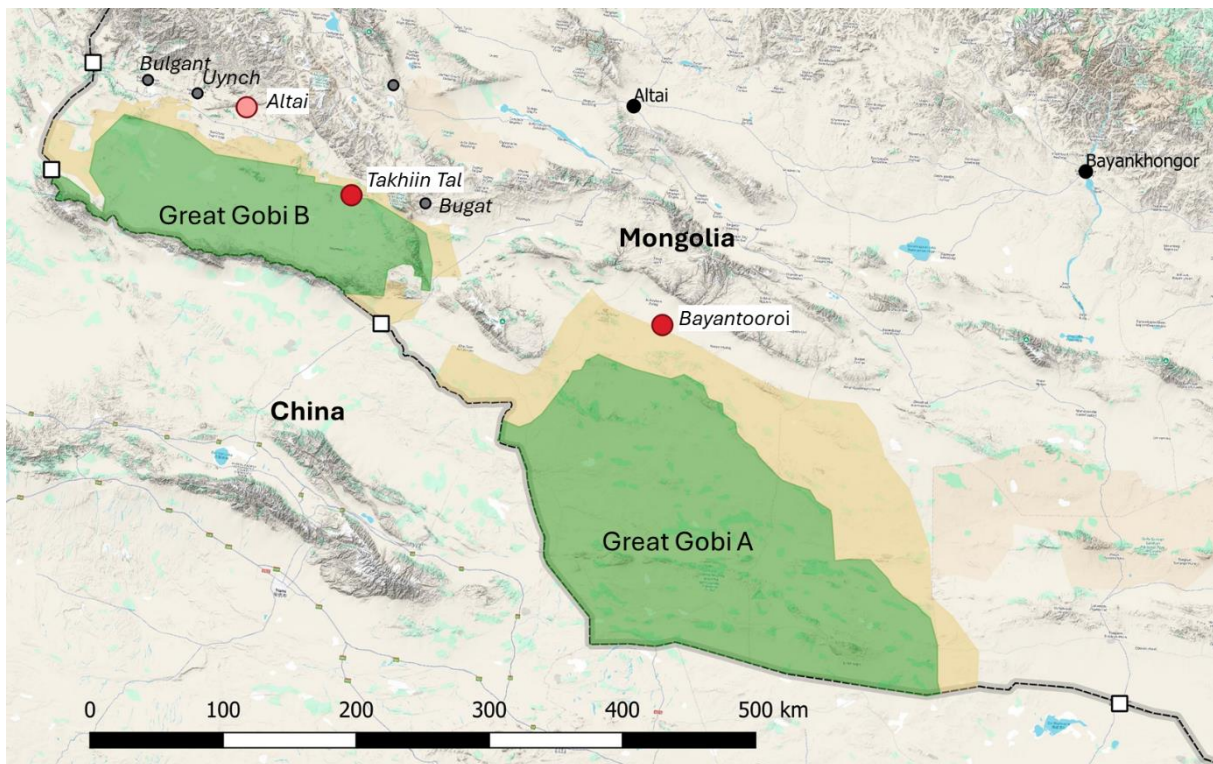
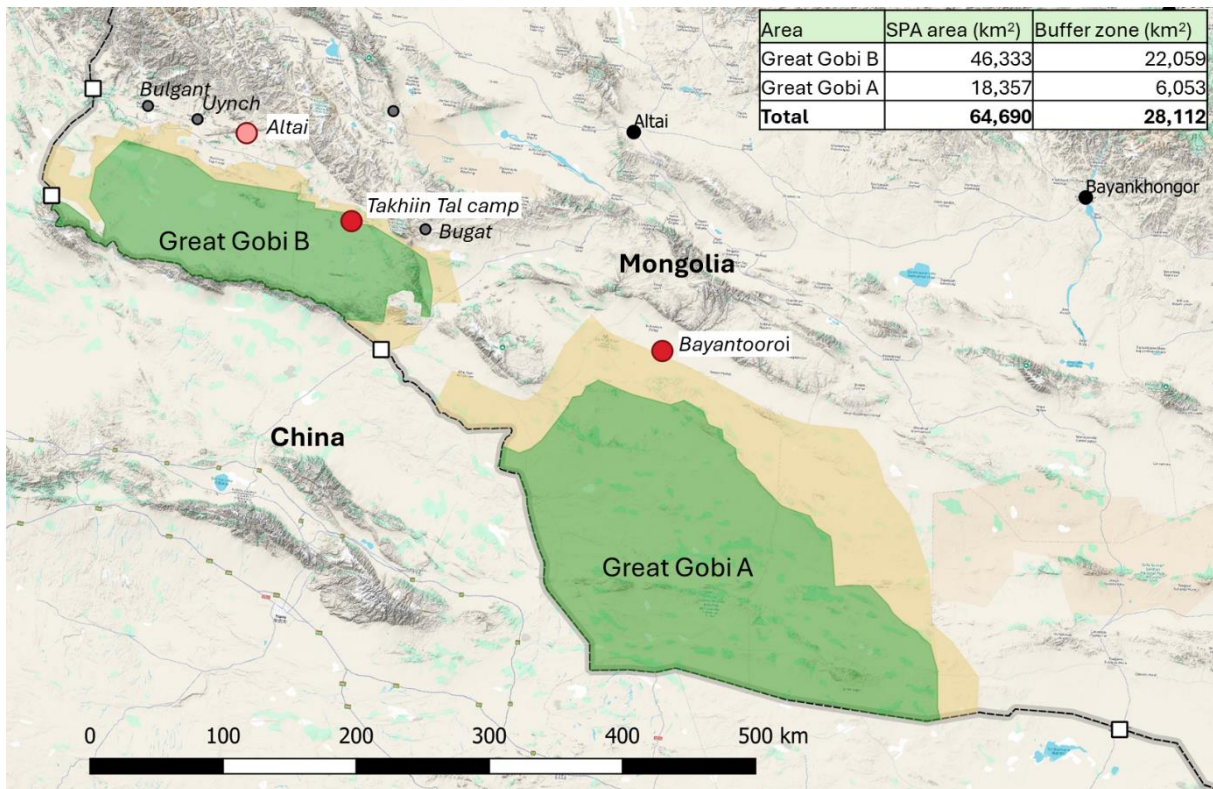


Fig. 1: Location and size of Great Gobi A and Great Gobi B Strictly Protected Area in SW Mongolia.

The two Great Gobi SPAs are located in the biome of cold winter deserts. The climate is extremely continental with short, hot summers, and cold long winters and temperature extremes from -40°C in winter to +40°C in summer and an average annual temperature of 2-10°C. Precipitation averages 100mm in Great Gobi B and just 50mm in Great Gobi A. The majority of precipitation is falling

in summer as rain. The vegetation is dominated by desert, semi-desert, and desert steppe elements, with shrubs and semi-scrubs dominating over grasses and forbs. Open water is scarce and primarily available at a limited number of small and medium sized water points, temporary wetlands, and oasis complexes with lush vegetation.

Focal key or umbrella wildlife species are Przewalski's horse (also referred to as takhi), Asiatic wild ass (*Equus hemionus*, also referred to as khulan), goitered gazelle (*Gazella subgutturosa*), argali wild sheep (*Ovis ammon*), and snow leopard (*Panthera unica*) for Great Gobi B and Wild camel (*Camelus ferus*) and Gobi bear (*Ursus arctos gobiensis*; a desert adapted subspecies of the brown bear) and, snow leopard for Great Gobi A. Key plant species are Saxaul communities (*Haloxylon ammodendron*), oasis complexes in both areas and additionally Larch (*Larix sibirica*) forest on Baitag Bogd Mountain for Great Gobi B and Water sources for Great Gobi A (Ministry of Environment and Climate Change 2024a & b).

The topography is a mix of large plains and rolling hills, interspersed with small and medium sized mountain ranges. Towards the north the Great Gobi B and Great Gobi A are flanked by the Altai range and towards the south Great Gobi B includes high mountains along the border with China, whereas Great Gobi A includes three mountain ranges in its south-central part. Great Gobi B reaches its highest point at Baitag Mountain (3,290m) and its lowest point in the Baruun Khuurai Depression (1,034m). Great Gobi A reaches its highest point at Atas Bogd Mountain (2,695m) and its lowest point along the western border (527m – which is the lowest point in Mongolia; Dovchindorj et al. 2025).

Apart from several border posts along the Chinese border, and a small farmstead at Ekhin gol at the south-eastern edge of Great Gobi A, there are no permanent human settlements and no asphalt or connective roads in the Great Gobi SPA. In Great Gobi A there are also no herder camps. In Great Gobi B, on the other hand, 229 households with around 170,000 livestock are using the limited use zone as winter pasture and during spring and fall migration to and from the high mountain summer pastures in the Altai range (Ministry of Environment and Climate Change 2024a; Michler et al. 2023).

3. Methodology

We used the Seven S-model as the theoretical framework, to guide our research and help us identify areas of improvement for the management of the two SPAs. According to the Seven S-model, it is important to consider more aspects than the organizational structure when investigating an internal organization. In the Seven S-model the different elements are interconnected and do not follow an importance gradient. Shared values, however, are the core aspect of the model (Waterman, Peters & Phillips, 1980). These S's are divided into hard elements, which are easy to define or identify and therefore easier to manage, and soft elements, which are more difficult to describe and more influenced by culture. Originally, there were three hard elements (structure, strategy, and system) and four soft elements (shared values, skill, staff, and style). But Zincir and Tunç (2020) suggests that that might not be the case anymore. For example, strategy used to be a hard element, but future organizations should focus on dynamic capabilities.

We used a qualitative approach to explore the views and perspectives of participants through semi-structured and structured interviews with employees of SPAs and NGOs involved in management and conservation efforts within the Great Gobi SPAs (see Appendix A). The first few interviews were conducted in the capital Ulaanbaatar in English language by the first author with the help of a

translator. This allowed for a flexible interview guide but was time consuming. For the interviews in the Gobi, the interviews were pre-structured, with a fixed list of questions. These questions were asked by N. Ankhzaya (AN), research assistant of the International Takhi Group Mongolia (ITG-M), in Mongolian language, recorded, and subsequently translated by a translator.

Additionally, the first author (FG) spend 24 days of participant observation in Great Gobi B to collect supplementary data. During this fieldwork, FG engaged in active participation, by trying to learn about the culture and work by living at the research centre and participating on ranger patrolling and monitoring trips. The main observations were made by observing interactions between staff members, and by participating in wildlife monitoring activities. Moreover, AN and J. Batsukh (BJ), the executive director of ITG-M, helped translate day-to-day interactions. This was particularly relevant for the Soft S's and to build rapport with the interviewees (Van Maanen, 2011; DeWalt & DeWalt, 2011).

In a final step, we triangulated our data by using participation observation, interviews, and written documents relevant to understand the SPAs management (e.g., management plans; also see Fig. 2). Some of the information provided during interviews, was later updated with the latest information from the new 10-year management plans which were developed and approved in 2024 (Altansukh, et al., 2025) and the application dossier for subscription as a nature World Heritage site "Mongolian Gobi", finalised in 2025 (Ministry of Environment and Climate Change 2025).

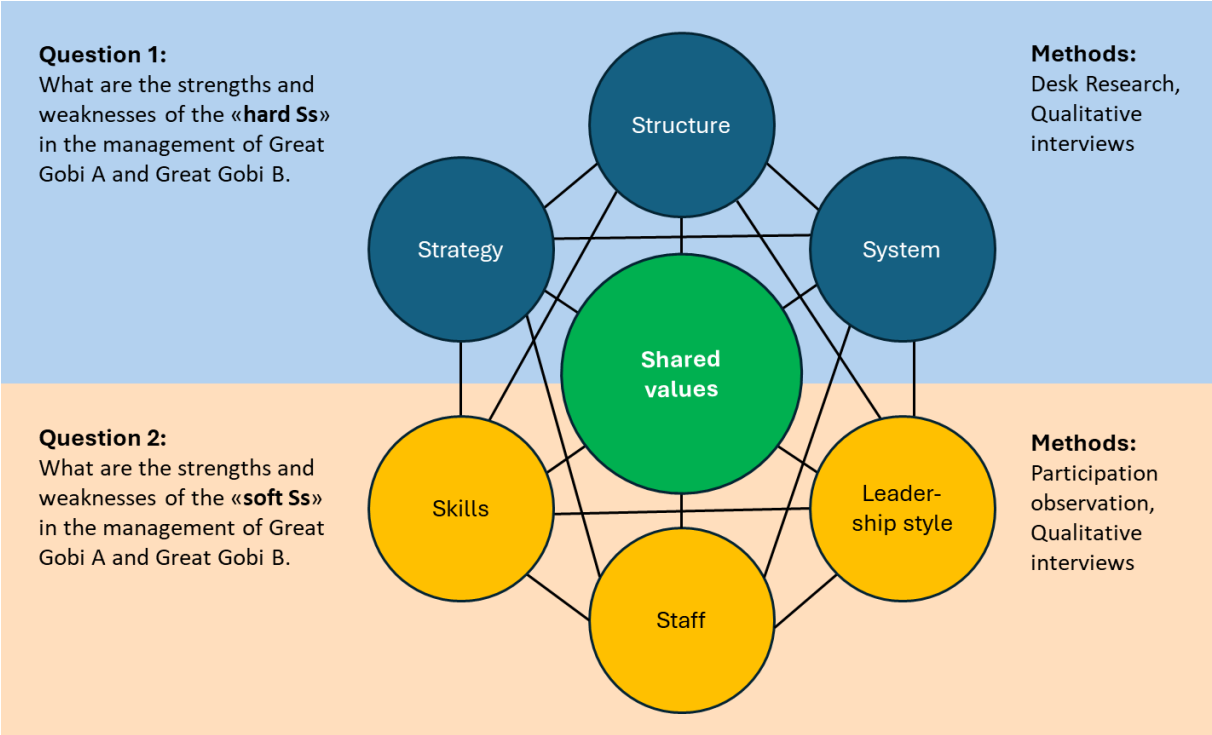


Fig. 2: Study design and methods based on the Seven S Framework by Watermann et al. (1980).

The focus of our research was on the management of Great Gobi B, but we chose to include Great Gobi A for comparison, wherever possible to give a broader context.

4. Results & Discussion

4.1 Shared Values

The core element of the Seven S-model relates to the core values of a company. Having shared values is important because if employees are committed to and share the norms and values of their organization, their performance toward achieving the organization's goals increase (Shahzad, et al. 2012). Almost all employees who were interviewed mentioned their love for nature and wildlife as one of their prime motivations to work in the SPA. For Great Gobi B Participant 7 even specifically mentioned that the shared passion of the staff for nature conservation is the SPA's greatest strength.

4.2 Hard Ss – Structure, Strategy, Systems

Structure – staff organization

The general management structure of all PAs in Mongolia foresees 5 main positions: a park director, a research specialist, a tourism specialist, a senior officer, and rangers (Participant 1, pers. comm.).

In Great Gobi B, director N. Altansukh, currently oversees a team of 26 staff members, including a bookkeeper, an accountant, 21 rangers, a driver, and a cook. The three specialist positions overseeing: research, law enforcement, and tourism were vacant in summer 2024. The organizational structure is more strongly areas-based with the protected area being divided into 12 different ranger units spread over 8 teams based on district borders and 4 on specific bio-geographic regions (Fig. 3). On average, one ranger is responsible for 860 km² which is much higher than the national standard of 220 km² (Participant 3, pers. comm.). All employees report directly to the park director who reports to the ministry, to document activities and to apply for the budget (Participant 12, pers. comm.). The director also reports to ITG, their main donor, during one annual meeting in Switzerland. Due to the lack of staff and limited budget, Great Gobi B is still highly dependent on ITG for financial and logistical support. Consequently, power is very centralized. This can also be seen in a response of Participant 5: *"If they're your superior, then they're your superior. We should adhere to their goals. That also doesn't mean we should be afraid of them, we should follow orders of course, but we need to be direct, and we need to be honest. Of course, our current director listens to me more, but I always respect his position and ambitions for the area."*

In Great Gobi A, director Ch. Bayarbat oversees a team of 33 staff members, including 4 specialists, 23 rangers, and 6 support staff such as drivers and cleaners (see Appendix B2). One specialist is specifically responsible for managing international relations. The rangers are divided into three main areas: west, central, and east, with most located in the central region. On average, one ranger is responsible for 2,090 km². However, the organizational structure is more task-oriented than area-based, with rangers reporting directly to both the specialists and the director. The specialists, in turn, report to the director, who ultimately reports to the ministry (Participant 2, pers. comm.). Tasks are distributed equally among the four specialists, and job descriptions are explicit, which ensures smooth task allocation. Although the structure is clear, there is a notable contradiction between the rigid organization and the flexibility of task assignments. While the director requests input from staff, he makes the final decisions on projects. As Participant 3 explained, the director considers potential

projects, decides, and then discusses it with his team. This balance between structure and flexibility reflects the task-oriented nature of Great Gobi A’s organizational culture.

In summary, the organizational structure of the two SPAs is very similar. The overall structure is hierarchical, indicating low organizational maturity (Mintzberg, 1980), with the directors of the SPAs making the final decisions. In Great Gobi B, ITG as the major long-term sponsor, also plays a significant role, especially for strategic decisions concerning the re-introduced Przewalski’s horses. This sometimes complicates decision making and can lead to friction. Staff are divided by geographical areas, enhancing effective patrolling and monitoring. However, especially in Great Gobi A, rangers are also organized task-oriented, creating flexible teams as needed, typical for a Holacratic structures (Rud, 2009). This reflects Laloux’s (2014) model of bureaucratic, hierarchical institutions in government agencies. However, remote locations and harsh weather complicate team building and hinder the shift toward self-steering teams, which is a challenge in Mongolia’s hierarchical culture (The Culture Factor Group, 2023). Despite these challenges, the directors remain closely connected with all employees, and dividing rangers by area and tasks at hand seems efficient.

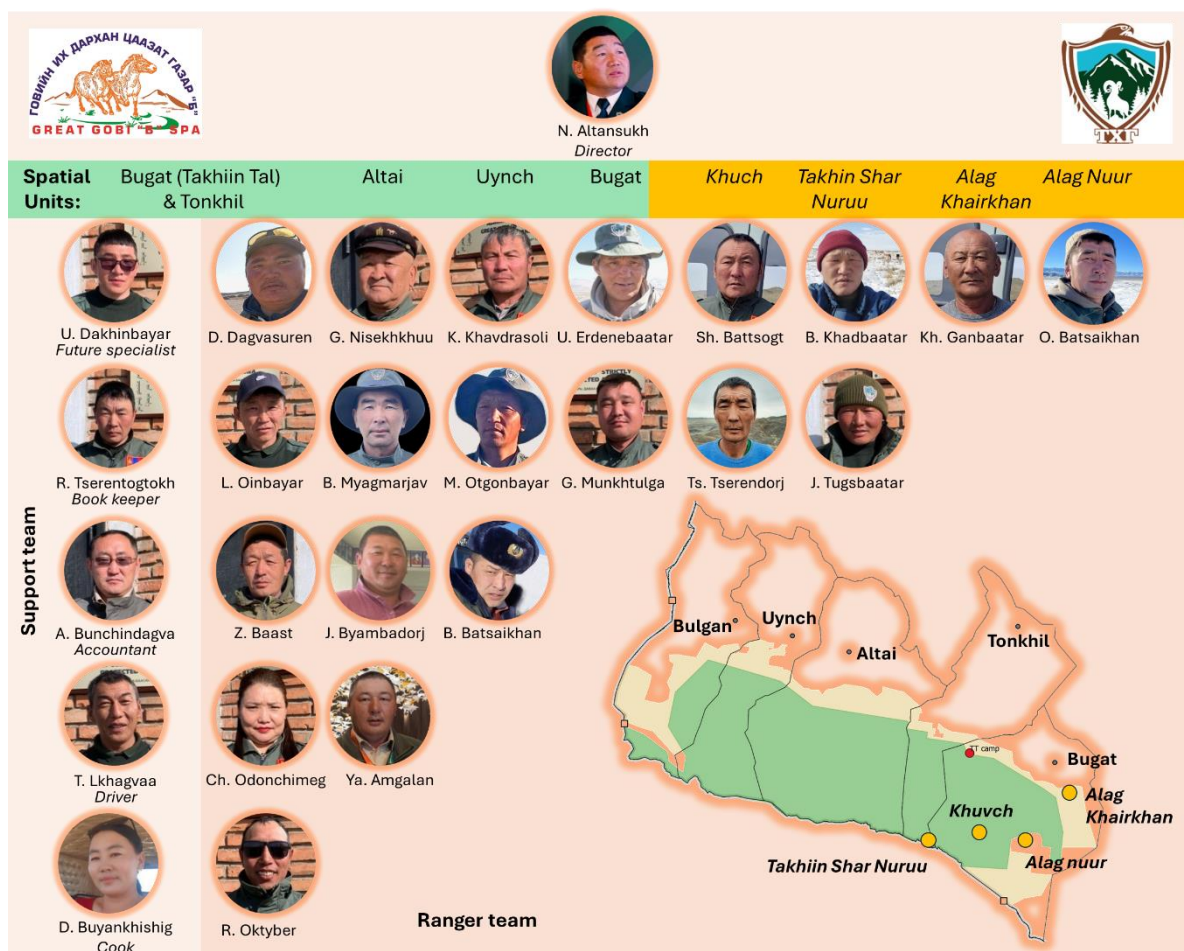


Fig. 3: Management structure of Great Gobi B Strictly Protected areas (status August 2024). The 21 rangers are organized in units mainly based on their residence, with six rangers being responsible for four distinct biogeographic regions. For management structure Great Gobi A please see Appendix B2.

Strategy – management plan

Management plans were not mandatory in the past for protected areas in Mongolia. However, most SPAs have developed management plans over the last ten years, often with technical and financial support from donors and conservation NGOs, following the guidance offered by adaptive management systems such as the Open Standards for the Practice of Conservation. Amendments of Mongolia's law on Special Protected Areas, adopted on 1994-11-15 and revised by 2023-01-06 (Article 61.1), now require mandatory 10-year management plans for all national protected areas. The implementation, efficiency, and effectiveness of the new management plans are foreseen to be evaluated every second year (Article 61.4). The accumulated data is summarized and analyzed, and based on the results and conclusions, management plans and monitoring procedures and goals are to be adapted. The general supervision and verification of the annual reports are made by the Agency of Protected Areas of the Ministry of Environment and Climate Change of Mongolia (Change 2025)(Ministry of Environment and Climate Change 2025).

Both Great Gobi B and Great Gobi A have had 5-year management plans before, the latest plan for Great Gobi B was for 2019-2023 and for Great Gobi A for 2018-2023. For the World Heritage application, both SPAs created a new 10-year management plan in collaboration with different stakeholders (Participant 5, pers. comm.).

The new 10-year management plan for Great Gobi B was approved early in 2025 and states the following 5 main goals (Altansukh et al. 2025:

1. Strengthen the financial capacity and human resources of the administration by promoting scientific research, developing eco-tourism, increasing internal revenue sources, and improving the living and working conditions of staff.
2. Focus on the conservation of rare and endangered wildlife species and their habitats at both national and global levels to ensure the stability of ecosystem processes within the SPA while improving compliance with legal and protective regulations.
3. Enhance the knowledge, awareness, and collaborative participation of stakeholders to safeguard biodiversity through increased ecological knowledge and information dissemination.
4. Improve habitat management, ecosystem protection, and restoration by reducing the number of households and livestock within the SPA through alternative income generation opportunities for local communities outside livestock-based activities.
5. Enhance the viability of the takhi population by maintaining continuity in the reintroduction, research, and monitoring efforts focused on this keystone species.

The new 10-year management plan for Great Gobi a was approved in 2024 and states the following 6 main goals (R. Bolor, personal communication, May 8, 2024, Bayarbat et al. 2025):

1. Implement research-based conservation management by strengthening the research and analysis database.
2. Promote and introduce the values of the Great Gobi on a national scale and educate the younger generation.
3. Ensuring the implementation of the National Program for Adaptation to Climate Change.
4. Improve the status of pastures through community-based environmental conservation and joint management of natural resources.

5. Strengthen cooperation with stakeholders to support the livelihoods of people in the surrounding area in an environmentally friendly manner.
6. Support personnel within the framework of the policies and ensure social security for employees.

The goals of Great Gobi B focus on capacity building, conservation, awareness raising, and local communities. The new plan continues to put a strong focus on the takhi because the species is important for the SPA as it attracts support and funding and provides tourism opportunities. However, Great Gobi B and ITG should be careful not to lose the bigger picture of ecosystem conservation. Although the takhi is the focal species when talking with Great Gobi B and ITG staff, the management plan clearly identifies not only the takhi, but also four other large mammal species as well as five vegetation communities as key conservation targets for Great Gobi B (see study area for species).

The goals of Great Gobi A focus on conservation, awareness raising, local communities, staff security, and cooperation with governmental institutions. Overall, the plan aims to adopt and implement research-based conservation management. Although the goals and priorities of the management plans for Great Gobi B and Great Gobi A differ, the process was very similar, and the SPA administration cooperated closely. Both plans were developed with participation of different stakeholders, which could be a strength.

System – daily activities and procedures

Both parks now use a system called the Spatial Monitoring and Reporting Tool (SMART) to collect data on species and events and to document their patrolling effort and route. Rangers have the program on their mobile phones and register the location of species and events they observe (Smart Conservation Tools, 2024). The data is collected in a standardized way and uploaded to a government server. The raw information can be downloaded in a summarised way allowing for standard reporting of staff performance indices (e.g., work days, kilometres driven, vehicle use) and patrolling and monitoring results as tables or maps (e.g., wildlife observations, carcasses, illegal activities) over user defined time periods (Fig. 4).

Rangers in Great Gobi B use two procedures to document and communicate their daily activities, the previously mentioned SMART tool to report data on patrolling and monitoring and a closed Facebook group to communicate and coordinate among each other and with the director. The rangers have only started to use SMART in 2023, and some features are not yet fully implemented, data input forms cannot be adapted, and data input is currently not quality controlled and corrected. To monitor Przewalski's horses, rangers each go out three days a week and note down their takhi observations (Participant 12, pers. comm.) in the SMART program. These include the time, the number of horses, the location, and which herd the ranger observed (Participant 9, pers. comm.).

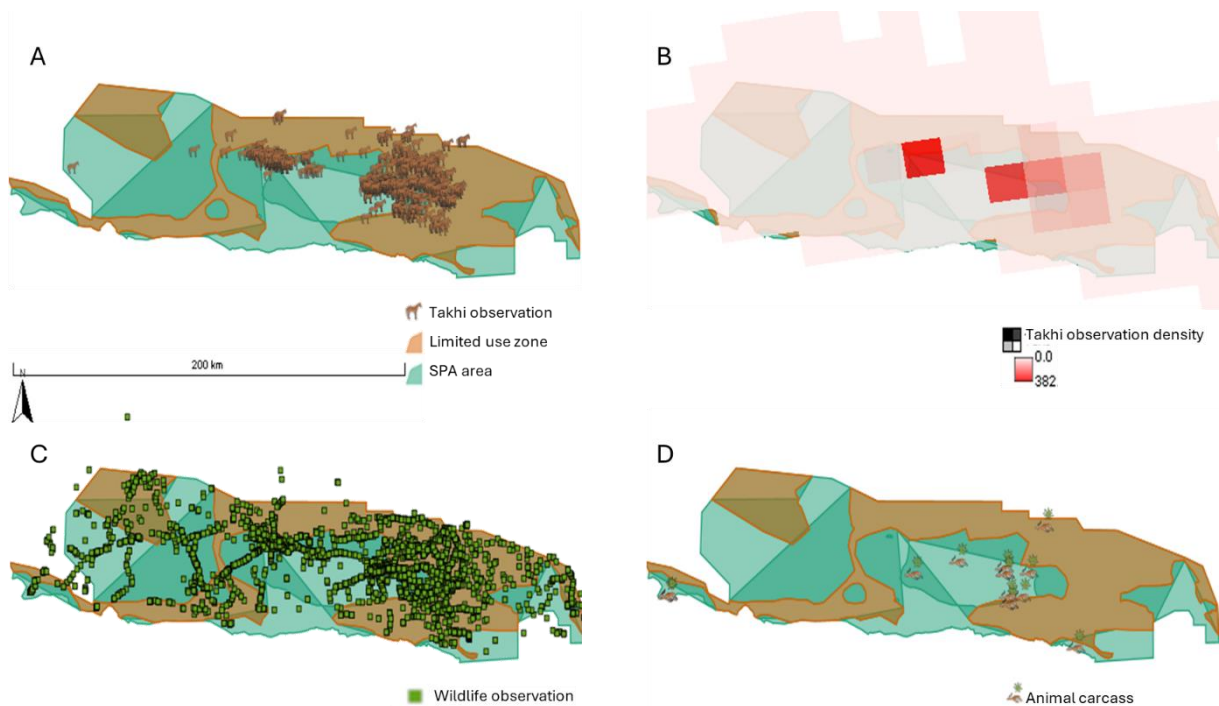


Fig. 4: Observation maps produced by SMART for Great Gobi B SPA from 1 Jan – 15 Dec 2024. A) Takhi observations, B) Tahi density map, C) All wildlife observations, D) Carcasses found. Note: there is a mistake in the SPA zoning layer in the system, which still needs correction. Source: Great Gobi B SPA

Rangers in Great Gobi B communicated with each other from the field or their different home bases via Facebook to exchange information and share anecdotes and pictures. In addition, rangers report their weekly activities to director N. Altansukh every Friday (Participant 12, pers. comm.). The director subsequently compiles those rangers reports and sends a monthly summary report to the ministry. Rangers seem satisfied with the way of communication with the director (participant 5, 6, 7, 8, and 11). However, participant 7 did mention “We don’t have much input towards the agenda that we follow, but we as rangers do communicate with one another about the agendas.” So, maybe it would be possible for the director to ask for more feedback from the rangers when planning the ranger work schedules.

Great Gobi A has a somewhat different reporting routine. Here the specialists report to director Ch. Bayarbat every month. Every three months the director gives a bonus to those who performed well. Rangers gather data through the SMART program, and report to director CH. Bayarbat within three days after they return from expeditions. According to the director there are four types of expeditions in Great Gobi A that vary in purpose and length. Every six months the rangers compile more comprehensive reports which the director reviews to determine where they went and which animals they saw. He gives a bonus to the rangers who went the furthest and documented the most animals. As in Great Gobi B rangers in Great Gobi A also additionally use Facebook for communication.

In summary, rangers in both SPAs use SMART for data collection on monitoring and patrolling and Facebook for communication with each other. There are benefits and disadvantages to the SMART program. The tool is easy to use and convenient for management practices, but ideally it should allow

for additional data input protocols to unlock its full potential to also be used for research projects. Currently, externally funded research projects all use their own monitoring protocols, and online data collection apps, which makes joined data collection and exchange cumbersome. However, harmonising data collection and archiving between the SPAs and externally funded projects from different GO and NGOs is not a simple task.

The reporting system of the SPAs to the ministry is standardized and thus identical. The internal reporting systems vary. Director N. Altansukh of Great Gobi B receives reports from rangers weekly, and there is a strong focus on takhi (Participant 9, and 12), whereas director Ch. Bayarbat received reports irregularly from rangers after field expedition. The rangers in Great Gobi B mainly go on day or 2-day trips, rangers in the much larger Great Gobi A tend to frequently go on multi-day or even multi-week expeditions (Participant 3).

4.3 Soft Ss – Staff, Skills, Leadership style

Staff - capability and potential

Currently, Great Gobi B is understaffed, missing the three specialist positions. According to N. Altansukh, this situation emerged because his wife who worked as a specialist for the SPA had to quit when he became director to avoid a conflict of interest, and one position had been vacant for lack of suitable applicants. There is currently one interested applicant, but he has not been able to pass the required state exam (N. Altansukh, pers. comm.).

The director N. Altansukh is trying to recruit specialists by advertising on Facebook and using his connections. However, Takhin Tal camp is very remote, with only very basic facilities, far from secondary schools, and with little to no job opportunities for spouses. For now, the team manages according to Participant 5: *“The number of rangers has increased, nowadays rangers have a lot more cooperation and communication with one another. Apart from missing some specialists, I’d say we’re doing great when it comes to our management of the land.”*

Therefore, the park could use rangers to carry out some additional tasks mentioned in their contracts. With additional training, rangers could potentially assist with organizing public awareness campaigns on environmental policies and legislations, and to organize environmental protection activities to increase the involvement of the local community. Still, the opinions on the ranger workload are divided. Participant 6 found the physical requirements of the job quite challenging and would prefer for more rangers to be hired. The SPA could also look inward to see if there is a ranger who might aspire to be a specialist. Additionally, there are currently only two women working for the park. So, in terms of gender, the diversity is low. This was not investigated for Great Gobi A, but it should be considered.

According to the former director of Great Gobi B, the recruitment problem will likely be solved in the future. Takhiin Tal camp is remote and far away from public amenities such as hospital, school, bank, grocery store, and gas stations (Ganbaatar, 2023). The new SPA administration building will be located in Altai soum (Fig. 1), a small settlement with basic infrastructure and public bus connection to the provincial capital and Ulaanbaatar. The new building and the location in a soum centre will likely be more attractive for new employees.

Great Gobi A is not missing any staff and does not face the same difficulties to recruit staff as Great Gobi B. Bayantooroi is a medium sized village with basic infrastructure, including a secondary/high school. However, job opportunities in the region are limited, which makes the SPA is an attractive work place for people that do not want to leave their homeland. Director Ch. Bayarabat specifically focuses on young and ambitious people from the area to man his staff. For rangers, he seeks out people who can't pursue a higher education. In addition, he helps his staff by supporting them when taking state exams. So, he takes an active approach in recruiting new personnel and developing the full potential of his team.

However, according to Participant 3, ideally, the park would have additional rangers. Great Gobi A has a size of 46,000 km², so their rangers cover much more land than required. However, this is not a problem due to their clear structure. Participant 3 said the following: *"...if any parts are missing or if anything is needed, we collectively or provide help within our own positions to resolve the issue as fast as possible."*

In summary, both directors mentioned that finding personnel willing to move to these remote areas is challenging. Moreover, they prefer recruiting locals because they already know the area and local people well. The director of Great Gobi A actively approaches potential candidates. He also goes to schools in the region to recruit from there. Moreover, the director helps prepare potential staff for the state exam, which is a great hurdle for rangers and specialists (participant 2, pers. comm.). However, Great Gobi A is also fully staffed, including the specialist positions, so that the director also has more time to invest in recruitment. Great Gobi A administration being in a village with a secondary/high school has the additional advantage that direct contacts are easier. Since many other issues dependent on it, the lack of staff is the greatest weakness of Great Gobi B. The consequences affect management in many ways - from missing work skills to higher workloads – and hence recruiting of new employees should a top priority for Great Gobi B which will hopefully be easier once the administration moves to Altai soum. Skills – staff competencies

According to the general job description, rangers have a very broad field of responsibilities focussed around: implementing environmental policies, execute the management plan, collect biodiversity data, and raise public awareness for the environment (Fig. 5; source??).

A rangers job is:

1. To ensure the implementation of environmental policies, laws, decrees and decisions in the areas of responsibility and to provide the administration with information.
2. To follow and execute the environmental management plan, to protect the region from potential environmental hazards and disasters, and to organize environmental rehabilitation in case of damaged land.
3. To collect, process and submit data regarding changes in the state of the natural environment and biodiversity in the areas of responsibility.
4. To organize public awareness campaigns on environmental policies and legislations, and to organize environmental protection activities to increase the involvement of the local community.

Fig. 5: Job description of rangers in Mongolia's Strictly Protected Areas.

During the interviews with the staff of Great Gobi B, four employees mentioned internal communication to be a strength. However, in all six interviews, the missing specialists were mentioned as an obstacle for contribute to the areas of research, tourism, law enforcement and land management. Moreover, two people mentioned it would be an asset to recruit young people.

During the interview with director N. Altansukh, it also became apparent that not all rangers have sufficient skills. Nine rangers lack the formal qualification to be a full range as they have not passed the state ranger exam (Altansukh, et al., 2025). Furthermore, several rangers lack wider computer skills and many have no access to a computer at or near their home so that they are struggling to provide standard reports. Ideally, Great Gobi B should invest some resources for additional computers and training of the relevant staff members so they can master reporting, which will also make the director's job easier.

Rangers are also instrumental and expected to help with externally funded projects. However, none of the staff, other than the director, speaks English. Consequently, the director or personnel from ITG are in high demand for helping with external projects, primarily as translators. Alternatively, external translators need to be hired, which is expensive. The lack of English speakers also greatly limits the possibility for direct interaction of Great Gobi B staff with ITG – Switzerland, foreign researchers, and tourists. This can result in various misunderstandings and greatly reduces the potential for bi-directional knowledge and experience transfer. Hence, English language training for interested SPA staff should again be considered.

Great Gobi A is not missing personnel and therefore, they are struggling less with a with lack of skills or expertise. However, due to budget constraints the director mentioned he is not currently able to develop the staff's skills. Still, according to Participant 3, the entire organization is open to self-improvement and pursuing studies. Specifically, the director encourages his specialists' and rangers and support staff to pursue higher education, including an academic degree. The director also tries to enhance connections with other parks by setting up a collaboration program. *"In 2020 all of the rangers went to China to a SPA for two weeks, to give them a crash course, based on their feedback, it helped a lot to grow their skills."* The lack of English language skills in rangers is felt less severely In Great Gobi A, as most of the externally funded research projects have Mongolian scientists as project leaders, who are based at academic institutions or conservation NGOs in Mongolia.

In summary, due to the lack of staff, Great Gobi B is missing specialized skills for 1) legal enforcement and inspections, 2) natural resource conservation, research, and database management, and 3) tourism, training, and public awareness (Altansukh, et al., 2025). These skills are vital for the effectiveness of the protected area and should receive more attention. Besides these skills, Great Gobi B should spend some time to teach their relevant staff the required computer skills to lighten the workload of the director and to encourage more staff to learn English. One strength of Great Gobi B is internal communication. Great Gobi A supports staff to pursue higher education by providing paid leave, and research opportunities. Furthermore, the director is trying to set up an exchange program to train his staff internationally, but currently there are budget as well as language constraints. Consequently, skills are a weakness of Great Gobi B, but seem to be a strength of Great Gobi

Leadership Style

Leadership style is influenced by culture, values, beliefs, norms, and traditions and in Mongolia, society values hierarchical relationships and respects authority figures (The Culture Factor Group, 2023). The director of Great Gobi B was appointed in 2022, consequently, he focuses a lot on self-improvement and team building. During the interview, Participant 1 suggested that the management skills in Great Gobi B could still be improved. This also makes sense considering the director is still relatively new in his position and had to switch from his previous position as senior specialist to now being the director. The latter is an advantage as N. Altansukh knows his people well, but also a disadvantage as it takes time for both sides to adjust to the new hierarchy.

For Great Gobi A, the director has been in his position since 2016. When Participant 3 was asked about the Great Gobi A director, he said: *“His leadership is amazing and that it is plus, plus, plus and he excels in understanding his workforce.”*

In summary, and as already mentioned under the section discussing structure, the leadership styles of the directors are fairly top-down. Therefore, the directors could consider giving their employees more autonomy over their work. However, it cannot be ignored that Mongolia is culturally a more hierarchical focused country. Furthermore, the long distances and often harsh environmental conditions require the directors to find a fine balance between being in control and trusting on the self-steering capabilities of their teams. The director of Great Gobi A is well established and prioritizes supporting his employees and creating a comfortable work environment. In contrast, the director of Great Gobi B focuses on self-improvement to strengthen his team. Given that one participant highlighted the need to enhance management skills in Great Gobi B, it appears that Director N. Altansukh has set the right priorities to address this challenge.

5. Conclusion

In conclusion, SPAs play a crucial role in protecting nature and supporting the local economy in Mongolia. The two largest SPAs, Great Gobi B and Great Gobi A, offer a valuable case study on managing these, sometimes conflicting, goals. Based on 12 interviews, participant observation, and SPA management plans, we used the Seven S-framework to assess the SPAs' shared values, structure, strategy, system, staff, skill, and leadership.

In both SPAs, staff share a common passion for nature conservation. For Great Gobi B, strengths include strong internal communication, but they struggle with missing staff and consequently skills and need to reduce dependency on their long-time supporting NGO. In contrast, Great Gobi A excels in organizational structure, task division, and recruitment, allowing them to build a stronger team with more diverse skills. Both parks could improve leadership styles by adopting a more participatory, team-oriented approach.

Table 1: Summary of the Strengths and Weaknesses of the Great Gobi Administrations Based on the Seven S Model.

S	Great Gobi A (Strengths)	Great Gobi A (Weaknesses)	Great Gobi B (Strengths)	Great Gobi B (Weaknesses)
Shared Values	Strong shared passion for nature; cohesive team culture	—	Strong shared passion for conservation; considered SPA's biggest strength	—
Structure – staff organisation	Task-oriented, flexible ranger teams; clear job descriptions	Large ranger areas; 1 ranger/2,090 km ² (way above national standard)	Area-based structure allows targeted monitoring; rangers report directly to director	Vacant specialist roles; centralized power; 1 ranger/860 km ² (above national standard)
Strategy – management plan	Holistic goals including education, climate adaptation, and livelihoods	Slight disconnect between goals and execution due to top-down leadership	Strong focus on takhi; comprehensive plan with defined goals; stakeholder participation	High dependency on one support / donor organization (ITG)
Systems – daily activities and procedures	Use of SMART and Facebook; structured expedition reports; performance-based bonuses	Irregular reporting schedule; expeditions may limit frequent updates	Weekly ranger reports; SMART and Facebook use; strong communication between rangers	SMART features not fully implemented; limited data customization; director handles reporting alone
Staff – capability and potential	Fully staffed; director actively recruits locals and supports exam preparations; strong local engagement	Still need more rangers due to large area	Rangers communicate well; administration is scheduled to move from its remote location to a village with good infrastructure in 2027	Missing all 3 specialists; hard to recruit due to remoteness; low gender diversity; high ranger workload
Skills - competences	Staff is encouraged to pursue higher education; exposure to international training (e.g., China exchange)	Budget limits further skill development; limited English language skills	Strong internal communication; director motivated for team growth	Need to improve computer/English language skills; lack of skills in legal, tourism, and database management due vacant positions
Leadership Style	Experienced director (since 2016); trusted, supportive	Could increase staff autonomy	New director (since 2022); familiar with staff; focus on self-improvement and building relationships	Leadership experience still growing; some skills lacking; may struggle to shift from specialist to managerial mindset

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Appendices

Appendix A – Overview of interview partners

Interview Overview

	Name	Organization	Topic	Date	Place
1.	Participant 1	ITG	ITG management	29-03-2024	Ulaanbaatar
2.	Ch. Bayarbat	Director Great Gobi A	Management of Great Gobi A	04-04-2024	Ulaanbaatar
3.	Participant 3	Great Gobi A	Management of Great Gobi A	09-04-2024	Zoom
4.	Participant 4	Zoological Society of London, Mongolia	Funding role of Great Gobi A	10-04-2024	Ulaanbaatar
5.	Participant 5	Great Gob B	Management Great Gobi B	16-04-2024	Altai Soum
6.	Participant 6	Great Gob B	Management Great Gobi B	17-04-2024	Bulgan
7.	Participant 7	Great Gob B	Management Great Gobi B	26-04-2024	Takhin Tal
8.	Participant 8	Great Gob B	Management Great Gobi B	26-04-2024	Takhin Tal
9.	Participant 9	Former Director of GGB	Management Great Gobi B	01-05-2024	Takhin Tal
10.	Participant 10	Former specialist of GGB, currently working for ITG	Management Great Gobi B	01-05-2024	Takhin Tal
11.	Participant 11	Great Gob B	Management Great Gobi B	01-05-2024	Takhin Tal
12.	N. Altansukh	Director Great Gobi B	Management Great Gobi B	02-05-2024	Takhin Tal

Appendix B2 Management Structure GGA

Management structure Great Gobi A

