

An Assessment of the Protected Areas of the Eastern Steppe of Mongolia

David E. Heffernan¹, Peter Zahler², Jason Merkel³, Catherine A. Heffernan⁴ and Chinzorig Jargalsaikhan²

¹US Peace Corps Volunteer, Ministry of Nature and Environment, Ulaanbaatar, Mongolia
e-mail: deheffer248@yahoo.com

²Wildlife Conservation Society, PO Box 485, Ulaanbaatar-211238, Mongolia,
e-mail: pzahler@wcs.org

³US Peace Corps Volunteer, Eastern Steppe PAA, Choibalsan, Mongolia, e-mail: dunabuwaoh@hotmail.com

⁴US Peace Corps Volunteer, Gurvan Erdene Institute, Ulaanbaatar, Mongolia

Abstract

An assessment of the status of the ten Protected Areas in the Eastern Steppe of Mongolia was conducted during the summer of 2004. A method designed to satisfy international standards was adapted and used to complete the assessments. The assessment consisted of a review of current information along with field visits to each of the ten areas as well as potential new protected areas. Qualitative biological and administrative information was collected, interviews conducted, threats identified, and recommendations developed. In general, the habitats of the areas were found to be largely intact, if stressed to varying degrees, but wildlife populations appeared to be low and decreasing. Threats identified included excessive off-take of animals and plants (both legal and illegal), overgrazing by livestock, wildfires, drought, and mining. Recommendations were developed for the Protected Areas in general, as well as for individual areas.

Key words: assessments, Mongolia, protected areas, threats

Introduction

Protected areas (PAs) are considered the key to global biodiversity preservation. PAs provide habitat for rare and endangered species, enable natural ecological processes to function, and offer recreational, cultural, and spiritual opportunities for people. While PAs are expected to be maintained in a natural and pristine state forever, it is now obvious that PAs around the world are under attack from a wide variety of threats, and that many are not meeting their management objectives (Dudley *et al.* 2004). This has led to efforts to develop standards to assess and monitor PAs and their management, in particular by the IUCN World Commission on Protected Areas (WCPA) and their Management Effectiveness Task Force.

There are currently 56 protected areas in Mongolia. Ten of these are located in the eastern aimags (states/provinces) of Dornod, Sukhbaatar, and Khentii, an area informally known as the Eastern Steppe. Most of this area's habitat is referred to as steppe (grassland), although other habitats occur, particularly in the extreme east and north portions where forests are found. The Eastern

Steppe is considered to be the world's largest intact grassland, and it is famous for its large herds of migrating Mongolian gazelles (*Procapra gutturosa*) and other rare and unusual species.

The collapse of Mongolia's centralized government in the early 1990s and emergence of a democratic, free-market society is resulting in significant cultural and economic changes, many of which impact PA resources directly and indirectly. It is important for data to be collected regarding these changes and the potential and real threats they present to the PA system in Mongolia, so that reasonable and effective management decisions can be made. Therefore it was determined to conduct a formal assessment of the ten PAs found on the Eastern Steppe region. This assessment is in accordance with the recent (February 2004) adoption by the Convention on Biological Diversity (CBD) of a "Programme of Work" on Protected Areas (Decision VII/28 of the seventh meeting of the Conference of the Parties to the Convention on Biological Diversity, on Protected Areas, (see <http://biodiv.org/decisions/default.aspx?m=COP-07&id=7765&lg=0>). As a signatory to the CBD, Mongolia can consider itself to be in partial com-

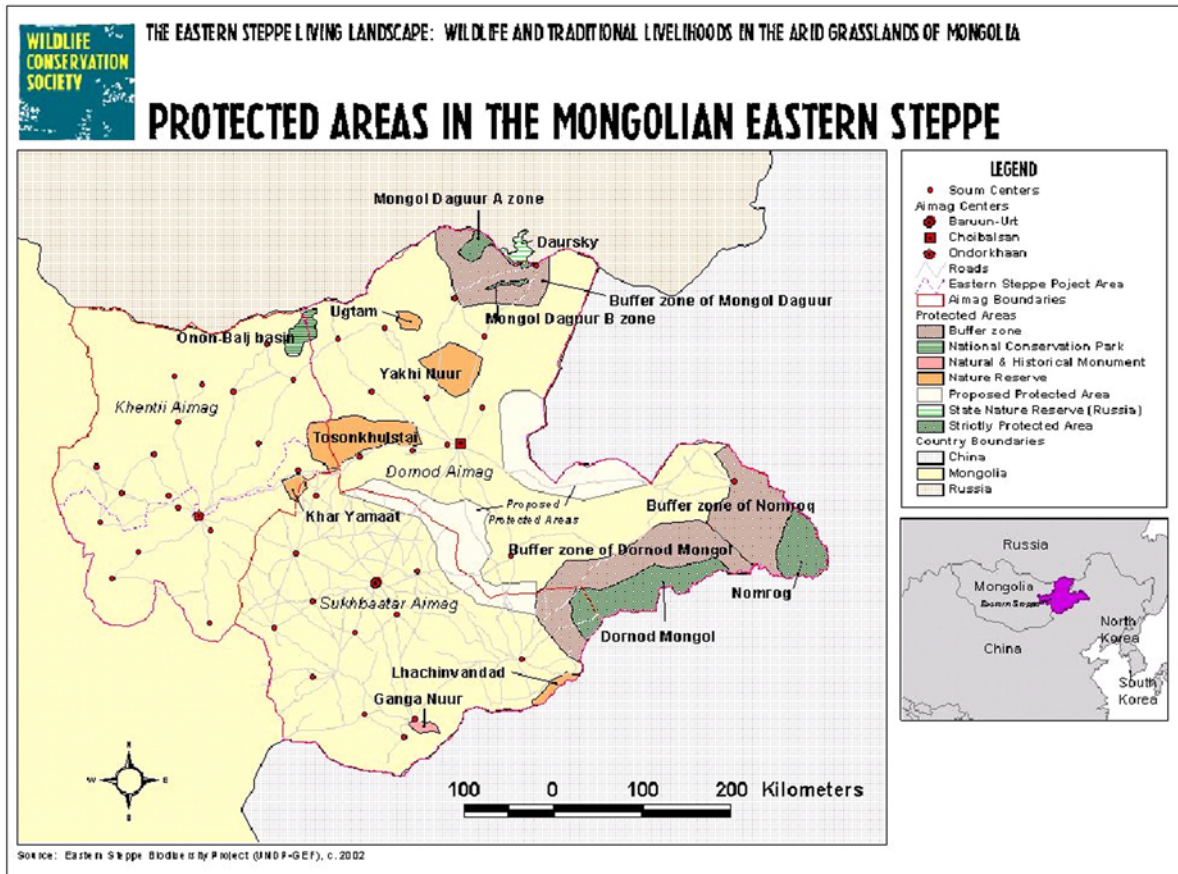


Figure 1. Protected Areas of the Eastern Steppe of Mongolia

pliance with this Programme through the assessment activities described herein.

Materials and Methods

The Wildlife Conservation Society (WCS) has been active in the Eastern Steppe for many years. In early 2004, WCS approached the lead author with the idea of completing an assessment of the ten areas, due to the authors' extensive background in managing PAs in the United States (U.S. Fish and Wildlife Service, National Wildlife Refuge System). With Ministry and Peace Corps concurrence, an assessment team undertook the task, completed the review, and prepared a final report for WCS. The full report was prepared in English and subsequently translated into Mongolian.

A number of internationally developed assessment tools were reviewed prior to the selection of the method ultimately used. The method, developed by the World Bank and WWF entitled "Reporting Progress at Protected Area Sites" (Stolton *et al.*, 2003), was selected due to its straightforward approach and ease of application

to the work. Each area was "scored" using standard data sheets, and qualitative information was added as well.

Prior to conducting the field portion of the assessment, relative information about the Eastern Steppe PAs was reviewed in both the Ulaanbaatar and Choibalsan PAA offices. Documents such as draft Management Plans (MPs) as well as Eastern Steppe Biodiversity Project (ESBP) plans and reports were reviewed in order to develop a better understanding of the areas.

In order to complete the 30-point data sheets, interviews were conducted and field observations recorded. We spent nearly the entire month of August 2004 traveling to each of the ten PAs, as well as a number of proposed protected areas in the eastern provinces. The PAs visited and assessed were Mongol Daguur, Nomrog, and Dornod Mongol Strictly Protected Areas; Tosonkhulstai, Yakhi Nuur, Khar Yamaat, Ugtam, and Lkhachinvandad Nature Reserves; Ganga Nuur Monument; and Onon-Balj National Conservation Park (Fig. 1). The first nine PAs are managed by the Eastern Mongolia Protected Areas Administration, headquartered in Choibalsan.

Onon-Balj, on the other hand, is managed by the Khan Khentii Protected Areas Administration in Ulaanbaatar. It was included in this assessment both because of its geographic proximity to the other PAs and because it would offer an opportunity to compare administrative methods. Potential PA sites that were visited included Buir Nuur, Tashgain Tavan Nuur, Jaran-Togoos steppe, Kherlen-Menen steppe, Lag Nuur, and Khokh Nuur.

We were only able to spend a day or two at most areas due to the distances involved (over 3,100 kilometers traveled) and time constraints. At each area we sought out appropriate individuals to interview, including PA staff (usually the one local ranger), local users (herders), local government officials (Border Post commanders, aimag/soum governors), and others. We also looked at habitat conditions, evidence of wildlife presence and use, and generally surveyed the area as much as time allowed. Local interviews were especially helpful in terms of ongoing uses and historical perspectives. Formal interviews were conducted with twenty-five individuals, including PA staff as well as a wide variety of local users and officials. Many other interviews were conducted on an informal basis.

Results

In general, we found the habitats of the various PAs to be intact, if somewhat stressed, but the wildlife populations, particularly medium and large mammals, were low and decreasing. We identified important threats, both observed and reported, and developed recommendations and suggestions for individual PAs as well as the overall Protected Area Administrations (PAAs). Many of these could be addressed with very little in terms of additional finances and personnel (see Discussion below).

In terms of the data sheets and scoring of individual PAs, all areas scored relatively low when compared to the international criteria and standards applied. While in a perfect world an area could score a maximum of 96 points (area legally established, no inappropriate uses, fully staffed, management plans in place, boundary well marked, resource inventories complete, research ongoing, sufficient budget, adequate equipment, good local involvement and support, fees collected and used on-site, etc.), in reality few if any PAs anywhere in the world could reach that level. In the Eastern Steppe, we determined the average score to be around 22, with a high of 26 (Nomrog Strictly

Protected Area, the only area with an approved Management Plan), and a low of 14 (Ganga Nuur, where there is no assigned staff or budget, and significant overuse issues exist for both livestock and people). These consistently low scores are largely the result of extremely low staff and budget levels (most areas have only one, and at most two, rangers assigned, with little or no transportation or equipment), poorly marked boundaries, little or no baseline inventory data, high incidence of illegal or inappropriate uses, and a variety of other factors resulting in low scores. Extended drought has also had a significant impact on the habitat in some areas.

Discussion

Our assessment found the habitats in the PAs of the Eastern Steppe largely intact, but wildlife populations were low and decreasing. Important threats included excessive and/or illegal take of plants and animals, overgrazing by livestock, wildfires, drought, and mining. Critical needs identified by the PAA staff included larger operating budgets (most PAs only have salary for one ranger), more staff (especially rangers), more/better equipment, professional training, and opportunities for more secure jobs and career advancement.

A number of recommendations were prepared and include the following:

- Prepare lists of critical needs, provide details, ensure accountability.
- Involve local governments/officials/individuals to the maximum extent possible.
- Complete comprehensive Management Plans for each PA.
- Review level of legal/illegal take of wildlife, develop plan to deal with results.
- Increase efforts regarding Buffer Zone Councils.
- Review license fees and penalty structure, consider significant increases to promote compliance and increase operating revenue.
- Adequately mark boundaries as soon as possible.
- Repair existing information signs, add more signs.
- Continue those activities of the Eastern Steppe Biodiversity Project (UNDP-GEF ESBP) that proved most beneficial.
- Consider expansion of existing areas, add new ones.

These general recommendations as well as a number of specifics for individual areas are included in the full assessment, *A Report on an Assessment of the Protected Areas of the Eastern Steppe of Mongolia* (Heffernan, 2005). This report was prepared in English and subsequently translated into Mongolian, and is available from the WCS-Mongolia office.

For the most part, we found the World Bank/WWF assessment method to be effective and suitable for our needs. One difficulty we experienced involved separating habitat and wildlife population issues into separate categories based on the data sheet parameters. Future efforts should consider separating these two important categories more clearly. While the collected information from this assessment is worthwhile as baseline data, the true benefit will largely be realized when future reviews are conducted following significant changes in management practices or local conditions. Therefore we strongly recommend that the Mongolian government develop a plan to regularly assess progress in PA management in the Eastern Steppe and throughout Mongolia. We recommend that the World Bank/WWF tracking tool used in this assessment be used in the future, as it is relatively inexpensive and easy to complete; it can be used by outside evaluators or by the PA staff themselves (self reporting), and it will allow for comparisons with the assessment described herein. This form of feedback will be critical in monitoring the effectiveness of both the protected areas and their management over time.

With an area of nearly 288,000 square kilometers (seventy million acres, or an area roughly the size of Colorado in the United States) and only about 220,000 people, the Eastern Steppe is one of the least populated regions in all of east and central Asia. Many large expanses are virtually uninhabited and appear as they did centuries ago. However, human impacts are occurring and are likely to increase significantly as the economy expands and infrastructure is developed. The government of Mongolia has a number of issues it must face, not the least of which are high unemployment, extreme poverty in many areas, and development of a productive free-market economy. Its vast natural landscape and rich resources are some of its biggest assets, and it is important that they be protected and managed wisely. Under the current budget structure, funding is provided to the Protected Areas in the amount of about nine tugrogs

(less than one cent USD) per hectare (2.47 acres). This can be compared to the much higher amount (in the region of \$10-15 per acre) provided to manage similar areas in the United States. It seems that now may be the time for Mongolia to take a serious look at where the PA program is and where it is going, while habitat is still in place and options are still available.

Acknowledgments

The PA Assessment was arranged and funded by WCS through a grant by the USAID Global Conservation Program. The US Peace Corps-Mongolia country staff was also supportive of our effort. We also appreciate the support of our host agencies and counterparts in allowing the three volunteers to spend time away from their primary sites (Ministry of Nature and Environment, Gurvan Erdene Institute) in order to carry out the field reviews in August. Thanks must go to Tony Whitten of the World Bank for recommending the methods used in this assessment. We also acknowledge the skills and positive attitudes of our translator Chimgee, and our two drivers, Baatarkhuu and Baasja. Thanks go also to the twenty-five individuals who agreed to be interviewed and provided us with valuable information. Finally we wish to recognize the residents of the Eastern Steppe as a whole. Their friendliness and hospitality was always evident, and their ability to survive under harsh climatic and economic conditions is a testament to the strong and proud tradition from which they hail. Theirs is truly a remarkable and magical landscape.

References

- Dudley, N., Hockings, M. & Stolton, S. 2004. Options for guaranteeing the effective management of the world's protected areas. *Journal of Environmental Policy and Planning*, 6(2): 131-142
- Heffernan, D.E. 2005. *A Report on an Assessment of the Protected Areas of the Eastern Steppe of Mongolia*. Unpublished report, Wildlife Conservation Society, Ulaanbaatar, Mongolia, 27p. plus attachments.
- Stolton, S., Hockings, M., Dudley, N., MacKinnon, K. & Whitten, T. 2003. *Reporting Progress at Protected Area Sites: A simple site-level tracking tool developed for The World Bank and*

WWF. World Bank/WWF Forest Alliance, IUCN World Commission on Protected Areas, Switzerland, 15p.

Хураангуй

Монгол орны дорнод бүс нутат орших арван тусгай хамгаалалттай газар нутгийн байдлыг үнэлэх ажлыг 2004 оны зун хийж гүйцэтгэв. Энэхүү үнэлгээний ажлыг хийж гүйцэтгэхэд олон улсад хэрэглэгддэг стандарт аргыг хэрэглэсэн болно. Уг үнэлгээний ажил нь одоогийн байгаа мэдээ мэдээллийн тойм, судалгаанд хамрагдсан тусгай хамгаалалттай газар тус бүр, мөн шинээр хамгаалалтанд авах бололцоотой газруудаар судалгааны дүн мэдээнд үндэслэгдэх бөгөөд биологийн болон захиргааны чанартай хангалттай тоон мэдээллийг цуглуулж, орон нутгийн

иргэдтэй ярилцлага хийж, хамгаалалттай газар нутагт учирч болох аюулуудыг тодорхойлж, зөвлөмжүүдийг гаргав. Ерөнхийдөө зарим газар нутгийн хэт доройтлыг эс тооцвол амьд биесийн амьдрах орчин, идээшил газар нутгууд нь бүрэн бүтнээрээ байгаа хэдий ч зэрлэг ан амьтдын тоо толгой багасч цөөрсөөр байх хандлагатай байна. Амьтдын болоод ургамлын хэт их ашиглалт (хууль ёсны болон хууль бус), малаас үүдэлтэй бэлчээр талхлагдал, хээрийн түймэр, ган гачиг, уул уурхайн олборлолт зэрэг нь судалгааны ажлын явцад тодорхойлогдсон аюулууд болно. Хамгаалалттай газруудад нийтэд нь мөн газар тус бүр дээр хэрэгжүүлбэл зохих зөвлөмжүүдийг гаргав.

Received: 26 April 2005
Accepted: 18 October 2005