

Report to the Tibet Autonomous Region Forestry Bureau

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activities in and around the Aru Basin,
Chang Tang Nature Reserve**

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University of Tromsø, Norway research program, in cooperation with agencies in the Tibet Autonomous Region: 1999-2007

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Joseph L. Fox¹, Kelsang Dhondup^{2,1} and Tsechoe Dorji^{3,1}

¹Department of Biology, Faculty of Science, University of Tromsø, N-9037 Tromsø, Norway joe.fox@ib.uit.no

²Tibet Academy Agricultural and Animal Science, Jin Zhu Rd. No. 130, Lhasa, Tibet Autonomous Region 860000, China kelsang376@yahoo.com

³Department of Plant Science and Technology, College of Agriculture and Animal Husbandry, Tibet University, College Rd. No. 8, Bayi Township, Nyingchi District, Tibet Autonomous Region 860000, China tsechoedorji@yahoo.com

Executive summary

Based on wildlife and human resource use research in the western Chang Tang Nature Reserve conducted over the past eight years, we report on new policy initiatives and consequent changes in human use that may strongly and negatively affect conservation goals in the nature reserve. Using our Aru Basin study area in the western reserve, we show how the implementation of standard “household responsibility contract system” and “returning pasture to grassland” policy directives, with some unusual applications in this area of high wildlife abundance, are likely to severely affect the populations of several large herbivore species in the western reserve, but primarily the endangered Tibetan antelope *Pantholops hodgsoni*. The use of a constant rangeland carrying capacity determination, and its application strictly to livestock without consideration of wildlife needs, is a major long-term threat to the viability of wild herbivore populations in the reserve.

But even more significant, in the short-term, the application of fencing to separate herding group and township winter grazing boundaries (which are necessarily large on the arid western plateau), as well as to protect grassland from grazing (i.e. exclosures), can act to: a) block traditional wildlife migratory routes, b) exclude wildlife from important winter grazing areas, and c) directly cause wildlife mortality either accidentally or with the deliberate driving of antelope into fences by wild predators or humans. Although the management innovations in question are considered standard practice across the eastern Tibetan plateau, and in some areas they are used to protect grassland, on the western plateau and especially in areas of nature reserves that still have abundant wildlife, they can have unforeseen and disastrous consequences. In and around the Aru Basin, for example, some of the highest densities of fenceline present throughout the western Chang Tang have been placed within traditional Tibetan antelope areas of winter concentration, in their migratory staging areas, and across their migratory routes. All across the northernmost inhabited areas of Gertse County, traditional wintering areas for tens of thousands of Tibetan antelope, long fencelines are being established that will certainly affect some of the last remaining large migratory populations of this species. Already examples of multiple deaths of antelope (as well instances of kiang and gazelle) caused by the fences are known, and there is evidence of motorcycle use to drive antelope into the fences in efforts to kill them for their valuable pelts. Fences already placed in critical Tibetan antelope habitat such as within and near the Aru Basin need to be removed, and we suggest some additional conservation measures. The continued existence of some of the last remaining large migratory populations of Tibetan antelope is gravely threatened by these newly implemented policy and management changes in the nature reserve. Such a potential fate for one of the 2008 Olympics mascots, due simply to a lack of consideration of the consequences of new management directives, clearly needs reevaluation and immediate rectification.

Introduction

Since the year 1999, The University of Tromsø and the Network for University Cooperation Tibet-Norway have supported a research program in the western Chang Tang in cooperation with the Tibet Autonomous Region (TAR) Forestry Bureau, with students and various collaborators from Tibet University (TU), Tibet Academy of Agricultural and Animal Sciences (TAAAS), and Tibet Academy of Social Sciences (TASS). This work has been concentrated in and around the Aru Basin in the western portion of the Chang Tang Nature Reserve, but also includes much of northern inhabited areas of Gertse County, and adjacent areas of Rutok and Gege counties (Fig. 1). A number of publications have arisen from this work (see references), and more are being prepared, but at this point in time the changes in rangeland management policy and human activity in our western Chang Tang study region, and their potential detrimental effects on conservation goals of the nature reserve, warrant a special report to the Forestry Bureau, prior to full preparation for publication.

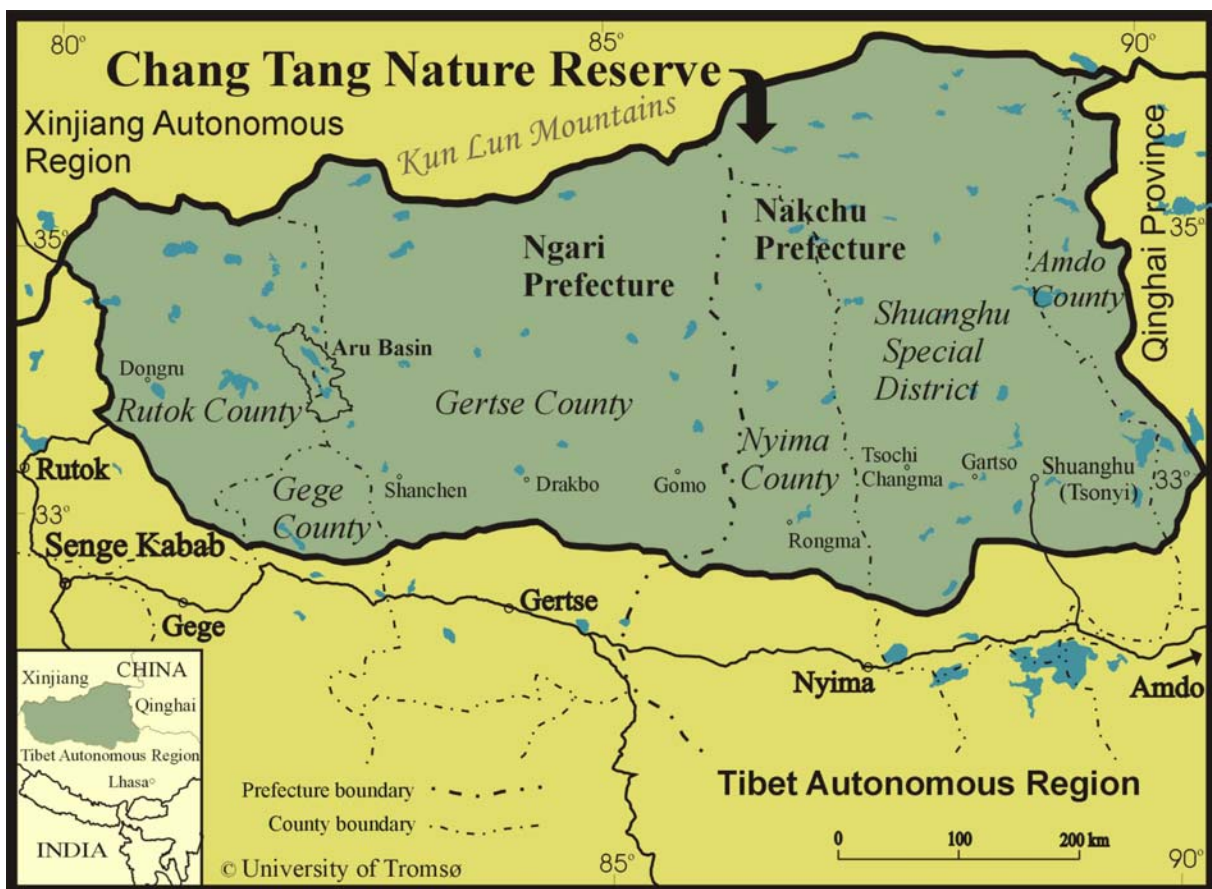


Figure 1. Chang Tang Nature Reserve and location of the Aru Basin near the juncture of Gertse, Rutok and Gege counties in Ngari Prefecture, Tibet Autonomous Region, China.

The work reported on here has been conducted as a research program, initially coordinated primarily through the TAR Forestry Bureau (Fox and Yangzom 2005), with cooperation from other TAR institutions, and later in direct cooperation with Tibet University, TAAAS and TASS (see Appendix I). Our primary cooperators at Tibet University have been the College of Agriculture and Animal Husbandry and the Departments of Biology and Geography, Faculty of Science.

Project results related to current conservation issues

The Aru Basin (Figs. 1 and 2) falls within an estimated climatic regime of less than 100 mm annual precipitation (Chinese Academy of Sciences), but it is well-known that mountain massifs, such as the Aru Mountains, create moister microclimates. We assessed whether the vegetation – livestock grazing relationship within the basin indicated that it was moist enough to support the standard assumptions of equilibrium dynamics, where a relatively constant carrying capacity could be applied. Results of vegetation analyses related to grazing intensity do not suggest strong equilibrium dynamics (Dorji 2006; Dorji et al., in prep.) and indicate that livestock management based on variable carrying capacity dynamics need to be established throughout this region. This means that the modern rangeland management policies generally applied in western China today need to be adjusted to the special arid characteristics of rangelands in the western Chang Tang.

Recent population estimates of wild ungulates within the Aru Basin are generally consistent with those made around 1990 (Schaller 1998), with the exception of wild yak and Tibetan antelope. Tibetan gazelle and blue sheep are somewhat more numerous than earlier reported, but this is believed to be simply a result of more intensive survey. Wild yak numbers within the basin have apparently decreased from the 680-750 seen in 1990 (Schaller 1998) to at most 150 and usually less today. This appears to be primarily a result of human and livestock disturbance (and possibly hunting in the early part of this period); noteworthy is that the substantial numbers of wild yak previously observed in the basin lowlands have no representation at all today. General monitoring of the numbers of Tibetan antelope in and near the Aru Basin indicate that the summer (late May-June) population of predominantly males is relatively stable at between 1,000-2,000 individuals, and this is consistent with numbers a decade earlier (Schaller 1998). During autumn, when most of our counts have been made, the population within the Aru Basin has decreased from more than 15,000 in the year 2000 and close to 10,000 in 2002, to between ca. 5,000 to 8,000 in the years 2004-2007. This may be a result of increased human activity, but natural fluctuations in migration paths and autumn/winter concentration may also play a part. An additional 10,000 or more antelope have winter areas of concentration farther east in the northern inhabited areas of Gertse County, indicating that this region is home to one of the main migratory antelope populations in the Chang Tang.

During summer, Tibetan antelope and Tibetan gazelle share the same general habitats within the Aru Basin (Wangdwei 2003; Wangdwei and Fox, in press). In winter, although areas of antelope concentration are apparently separated from designated livestock wintering areas, this is probably due to physical disturbance, since antelope make substantial use of the livestock winter areas in late autumn just prior to human-livestock movement to these areas for winter (Dunzhu 2007; Dhondup and Fox, in prep., Fox and Dhondup, in prep.). Overall, livestock and antelope appear to have very similar habitat use in their areas of overlap in winter, which indicates the potential for significant competition for food and/or space, as illustrated by winter house locations relative to Tibetan antelope habitat suitability in Fig. 3.

As noted above, standard models of rangeland management (e.g. constant carrying capacity), already been instituted on the moister eastern Tibetan Plateau, are now being applied in western Tibet. Their application to the relatively dry areas of western Tibet, such as Gertse County, while not acknowledging a potentially high variability in carrying capacity, has recognized the unique characteristics of this region in that the grazing land allocations (to date) to individual households are being limited to just the winter grazing areas. The overall

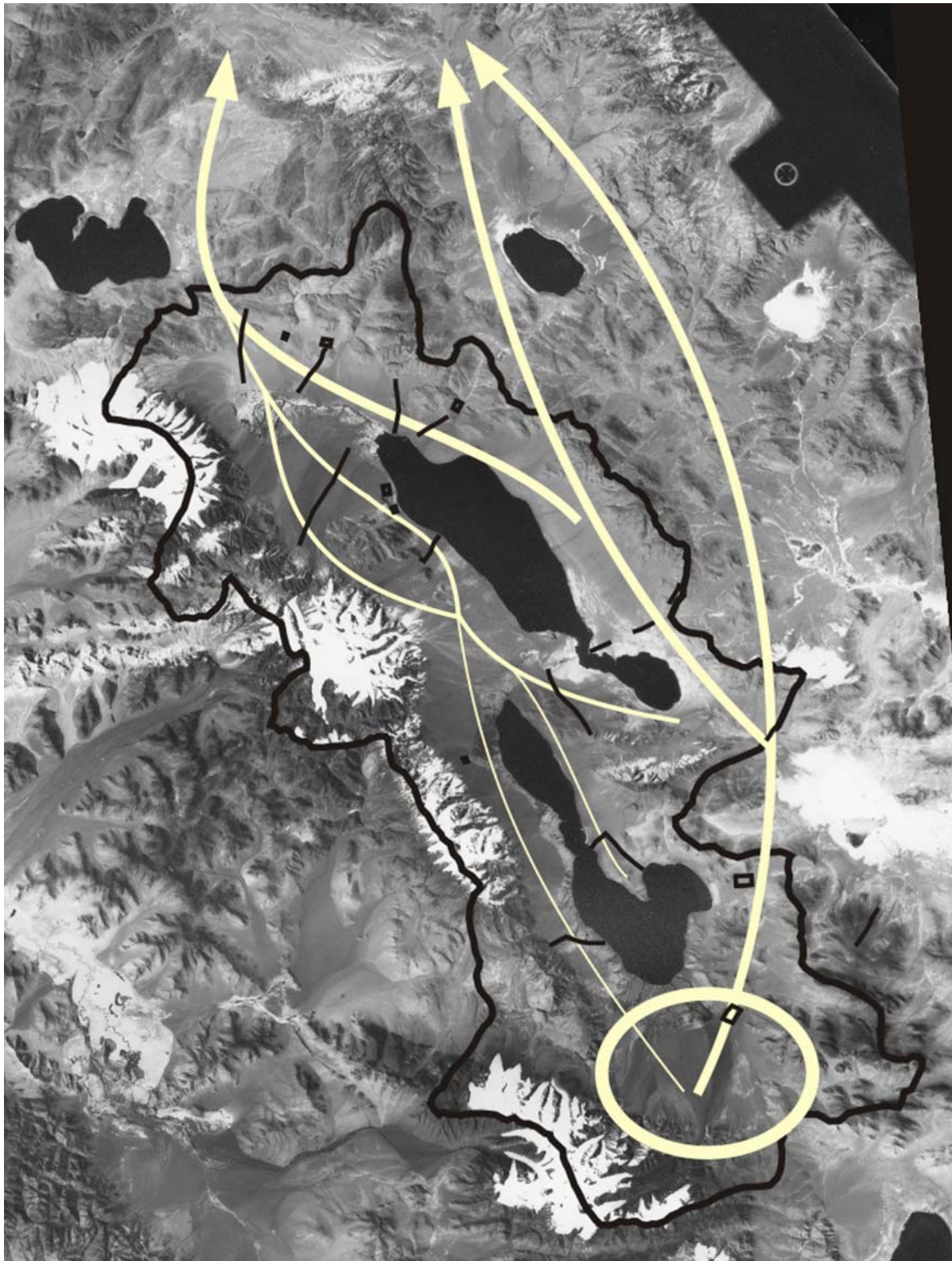


Figure 2. The Aru Basin catchment (black boundary), with fresh water Aru Lake (lower) and salty Memar Lake (upper) dominating the basin, and >6,000 m Aru Mountains forming its western boundary. Fencelines constructed within and near the Aru Basin in 2006 and 2007 are shown as the short lines or rectangles. The southern end of the basin is an important wintering and spring migration staging area for Tibetan antelope (oval), and the antelope migration routes through the basin are shown, with line thickness signifying importance.

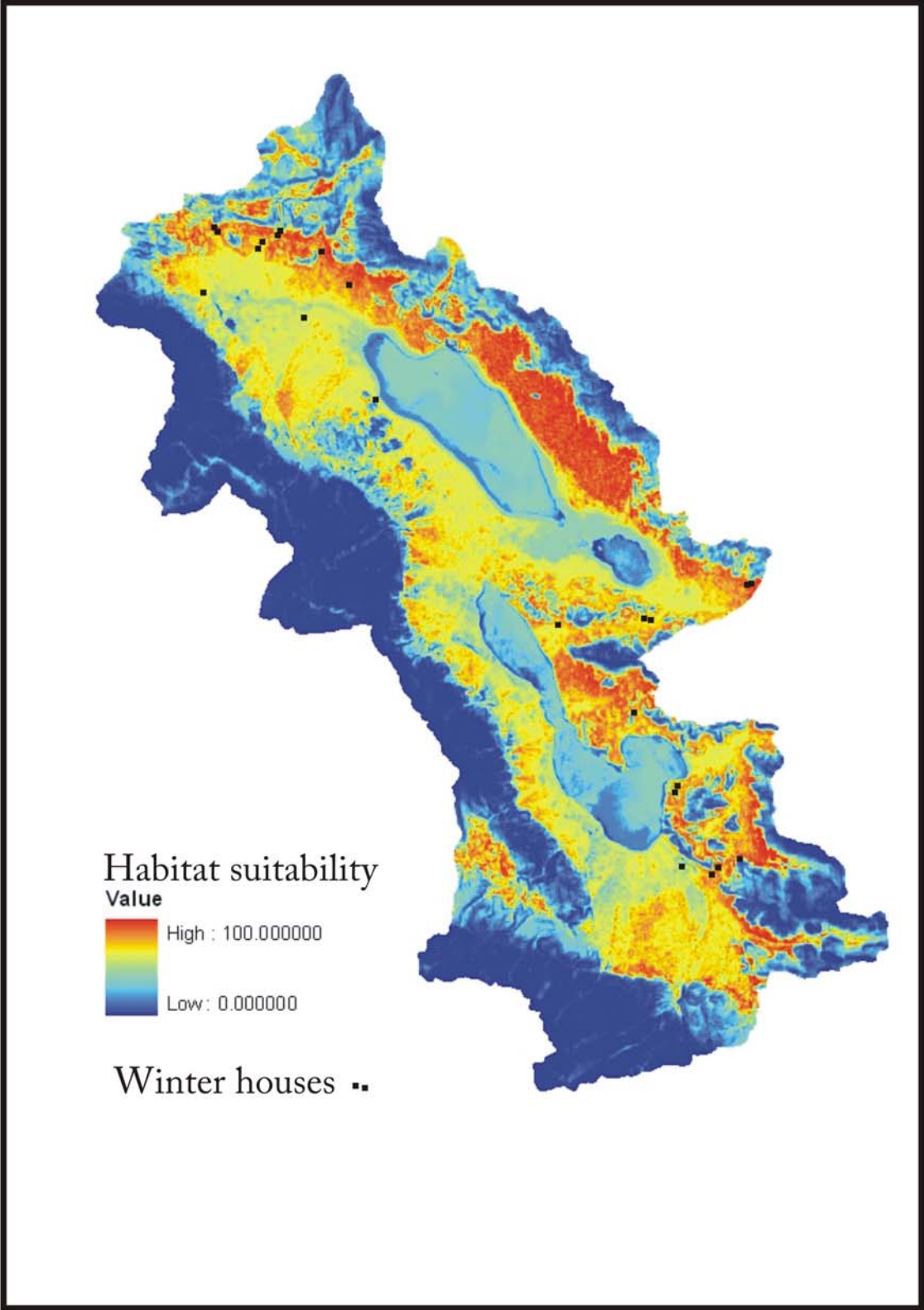


Figure 3. Autumn-winter habitat suitability map for Tibetan antelope in the Aru Basin. All pastoralist winter houses and surrounding livestock winter grazing areas are located in areas of high or moderately high antelope habitat suitability (adapted from Fox and Dhondup, in prep.).

grazing areas needed (per unit of livestock) are so much larger than on the more productive eastern plateau, that allocation, and the securing of boundaries (i.e. fencing) for the remaining seasons may be impractical. Furthermore, where fencing has been initiated, it is generally being applied, not to the household allocations, but generally to herding group or township winter grazing boundaries (Yangzong 2006; Dunzhu 2007; Fox et al., in press). Still, even restricted to just winter grazing areas and household group or township/county boundaries, the large areas in question, and the long fences required, have serious potential consequences if they impede antelope access to mating areas or cross traditional migratory paths.

As was suggested several years ago, in collaboration with Dawa Tsering of the Tibet Academy of Social Science (TASS) and WWF-China (Lhasa office), the application of standard rangeland management practices in the western Tibet, and especially in the nature reserves, are likely to have serious consequences for conservation goals (Fox and Tsering 2005). In a collaboration between TASS and our University of Tromsø project, the effects of fencing in this region are being investigated, and we have made a special effort to address the issue of fencing in the Aru Basin and vicinity.

Allocation of individual household winter grazing areas in the Aru Basin and vicinity began in 2005 (Yangzong 2006), and fencing was started in 2006. Winter grazing allocations have been mapped in the Gertse County portion of the Aru Basin, and their relationship to concurrent antelope grazing assessed (Dunzhu 2007). As indicated above, although areas of antelope winter concentration were away from the allocated livestock winter grazing areas, distances were not great, and these areas are known to be used by antelope immediately prior to winter (Dhondup and Fox, in prep.). The ongoing placement of fences along winter grazing area boundaries, as well as fencing to protect degraded rangeland can have serious consequences for antelope that congregate in the Aru Basin in winter (e.g. >15,000 individuals in autumn 2000), as symbolized by the male fatality near Aru Lake in Fig. 4.



Figure 4. Remains of a Tibetan antelope male killed in one of the new fences in the Aru Basin, constructed with funds allocated to “return pasture to grassland”.

Tibetan antelope apparently do not jump over the fences, and as evidenced by traditional hunting techniques, even very low barriers can prevent their crossing (Fox and Dorji, in press; see also Fig. 8). When trapped inside a fenced enclosure, even if small openings are present (e.g., gated roads), antelope can spend many hours and exhaust needed winter reserves trying to find their way out (Fig. 5), or they may die within the enclosure, as was the case in Fig. 4.



Figure 5. A female and calf antelope stuck inside a fenced enclosure in the Aru Basin, where they were observed for more than a day. They entered where a road passed through the enclosure (gated), but could not easily exit, even though they passed the open gate many times. This is the same fenced enclosure as in Fig. 4.

Boundary fences, especially long ones, can exhaust animals to the point of collapse, and can make them more vulnerable to predation (Fig. 6). Wolves using the new fences as an aid in



Figure 6. *Left* - Male antelope that died next to a fence in the Aru Basin. Cause of death was not clear, but two wolves were watching nearby when we found the animal, and may have been chasing it against the fence. *Right* - Tibetan wild ass or kiang that died after being caught in one of the new fences in Gertse County. Similar mortalities are also common with Tibetan antelope.

their hunting of antelope is also known from other areas of the Tibetan plateau (D. Tsering, pers. comm.). Antelope can also become entangled in the fences, as with other ungulate species (Fig. 6, right), something that may become a significant mortality factor in areas of their winter concentration. Significant antelope mortality in fences recently constructed in Gertse County's Gomo Township has already been reported in 2007. And when being chased, either by wild predators or humans, groups of antelope may run into fencelines at high speed, causing multiple deaths. This apparently happened in one fence in the Aru Basin where numerous antelope carcass remains were found next to about 10 sections of fenceline that had been completely knocked over (Fig. 7).



Figure 7. Remains of about eight antelopes (placed on the fence wires) that apparently ran into a fence near Aru Lake. Other skins may have been removed earlier. Note that the fence has been knocked nearly flat at this site.

Within the Aru Basin, antelope use its southern portion, south of Aru Lake, as a staging area for the northward calving migration (see Fig. 2). The southeastern portion of the Aru Basin and nearby areas, as well as areas further east, have traditionally been used for subsistence hunting of antelope, using drive-line barriers to guide animals to traps or shooters (Fox and Dorji, in press). There are no less than 15 of these drive-lines, or *dzaekha*, within or very near to the Aru Basin, placed there for traditional trapping and shooting of antelope (Fox and Dorji, in press). Current placement of fencing that intersects these drive-line barriers (Fig. 8) is testament to the hunting potential of the fencing in guiding antelope to hunters. And evidence from a variety of sites in Gertse County of the use of motorcycles to chase and then drive antelope into fences, for dispatching with knives or guns, is worrying from a conservation perspective. Unfortunately, the current placement of fences within, for example, the Aru Basin (Fig. 2) conforms less to a practical livestock management scheme than it does to a means for procuring antelope by blocking migration routes and hindering movement in general in this area of winter concentration. The government program known as "returning pasture to grassland" was established to let highly degraded pastures rest from grazing pressure. From an ecosystem perspective, in northern Gertse County the conservation concept behind this program is ironically being perverted to an anti-conservation action through the exclusion of threatened natural components of the grassland ecosystem (i.e., wild herbivores) in an area that is not highly degraded.

The fact is that in a site such as the Aru Basin, with historically relatively low livestock grazing intensities, and wild ungulate populations being limited by abiotic factors (i.e. non-equilibrium ecosystem dynamics), there is little evidence of severe rangeland degradation. Thus, where these grassland protection fences are placed within the winter areas of antelope concentration they will, in reality, act as little more than death traps for the antelope. Access to antelope skins for trade is still an economic factor in these areas of northern Gertse County (see Fox et al., in press), and the increased availability of dead antelope (i.e. fence-killed) will only exacerbate the problem here.



Figure 8. New herding group boundary fenceline, intersecting a traditional hunting drive-line near the Aru Basin (Aru Mountains in background), Chang Tang Nature Reserve.

According to a number of county officials we interviewed in the western Chang Tang, the long-term range management is essentially to fence wildlife out of prime livestock grazing areas. This is certainly practiced in other areas of the Chang Tang, where there is an expressed desire to exclude the numerous (and apparently increasing numbers of) kiang from high priority livestock grazing areas. If livestock are to be given priority, or exclusive grazing rights through fencing, to grazing areas throughout the antelope's traditional wintering areas, which is what has now begun, then the continued survival of these unique large migratory populations is clearly threatened.

It is apparent from our research results that the antelope groups wintering in the Aru Basin are part of a larger population in northern Gertse, and northeast Rutok, counties, which have

several migratory paths northward for summer calving (Fox and Dorji, in press). The current placement of fencing in the northernmost inhabited areas across Gertse County is likely to negatively affect mortality and migratory movements for this entire population. If one of the goals of the Chang Tang Nature Reserve is to conserve intact this species' migratory patterns, then the current application of fencing policy to these northernmost inhabited areas in the northwest Chang Tang needs to be curtailed.

The new rangeland management practices in northern Gertse and Rutok Counties will have dramatic consequences for antelope in the small areas of these counties where both livestock is herded and antelope congregate in winter. The Aru Basin is already one of these places. There may be moves in the future to better allocate rangeland carrying capacity to include wild herbivore needs, but if the fencing first either drives out or otherwise eliminates most of the large ungulates, then it will be much easier to allocate forage to the remaining livestock. There clearly needs to be a discussion of the conservation consequences of changes in rangeland management practices within the nature reserve before implementation is carried out, and the necessity for development of different management practices in areas of wildlife concentration should be recognized.

It can be possible to manage rangelands for both wildlife and livestock use, and in much of the Chang Tang this may be a reasonable conservation and economic development strategy. But the amount of fencing currently being constructed within the wintering areas of one of the major remaining migratory antelope herds in the Tibet Autonomous Region betrays any adherence to wildlife conservation goals. Much of this new fencing, including some very long sections, is near the designated core area of the reserve, and some of the fences within the Aru Basin are inside the currently designated core zone of the reserve. The Chang Tang reserve is a huge area and not all of it is equally critical as wildlife habitat, especially for Tibetan antelope. As we have indicated earlier (Fox and Tsering 2005), a more selective application of critical (or core) zones where needed for different species, may be more appropriate than the present management zonation of the reserve. In fact, the current east-west layering design of core and buffer zones in the reserve is not very conducive to conservation of the Tibetan antelopes' north-south migratory routes.

Two main wildlife management issues need to be addressed with research inside the reserve.

- I. An accurate assessment of antelope winter concentration areas, migratory staging areas and migratory paths needs to be determined; this being most efficiently determined with the use of satellite telemetry.
- II. An assessment needs to be made of wildlife in relation to rangeland carrying capacity, and the highly variable nature of this capacity (annual biomass production).

These aspects together must be determined so that the allocation of rangelands takes into account both wildlife spatial and behavioural requirements (e.g., mating areas, migration staging areas and routes, insect relief areas) and their forage needs. Some compromise to livestock development will be necessary in areas of critical wildlife importance if the goals of the nature reserve are to include maintenance of some semblance of the large populations (some migratory) still existing in the western Chang Tang. Perhaps this may include seasonal or permanent elimination of livestock from certain critical areas for wildlife (e.g., different areas for both antelope and wild yak). We will have more detailed recommendations in this regard in forthcoming reports; the critical issue at this time is the placement of fences within winter concentration areas of the Tibetan antelope such as the Aru Basin, and removal of the fences is highly recommended.

The monitoring of wildlife status and habitat use in the Aru Basin over the past eight years provides a basis for assessing changes in wildlife use in relation to the changes introduced by humans. In most areas of the reserve, such monitoring has not been performed, and it is difficult now to document the changes for wildlife that have taken place. Increased regular monitoring needs to be established in other areas of the reserve; for antelope this means the Mokpo area of northern Drakpo Township, the northern inhabited areas of Gomo Township, both in Gertse County, and in the northern inhabited areas of Dongru Township in Rutok County.

In terms of conservation actions, one of the most important where augmentation is greatly needed in the western part of the reserve, is increased interaction between local communities and agencies or other organizations with conservation management interests (spearheaded by the TAR Forestry Bureau). This has begun in the Nakchu Prefecture areas of the Shuanghu special management region and Nyima County. Specific conservation-related initiatives may include the training of local residents in conservation management (including jobs for the nature reserve) and in livestock management that is compatible with wildlife conservation. If, for example, fencing is deemed essential to livestock management in buffer areas, then evaluations need to be made to insure that they do not block significant secondary migratory routes. Lastly, ecotourism enterprises may be feasible, but need to be carefully considered for they greatly alter the traditional pastoralist livelihoods. Furthermore, the remoteness of this area of the western Chang Tang may lessen the potential for ecotourism, but as development activities are bringing change so rapidly, it may well be a viable option within the foreseeable future.

In any case, action needs to be taken now to alter current management practices before the unique large migratory antelope populations are relegated to non-migratory remnants. Other species, such as the wild yak and Tibetan argali, will also be served by well thought-out rangeland management schemes inside the nature reserve. Considering that in some other dry rangelands of the world, fences are being removed to benefit both pastoral mobility and wildlife populations, their necessity in the western Chang Tang is highly questionable. Removal of fences from such an important wildlife area as the Aru Basin is needed, although compensatory measures for local pastoralists must also be implemented to counter losses due to increased wildlife competition for forage, and perhaps loss of the current access to *shahtoosh* trade from fence-killed antelope. As we prepare this report, we must note that with the amount of fencing constructed in 2007, there could be very substantial antelope mortality this winter and spring in Gertse County. This is certainly not a desirable outcome for one of China's 2008 Olympic mascots (the Tibetan antelope, *Yingying*) as preparations culminate for the event later this summer.

References:

- Dorji, T. 2006. A test of rangeland dynamic theories using grazing gradients in the Aru Basin, northwestern Chang Tang, Tibet, China. Masters thesis, University of Tromsø, Norway.
- Dunzhu, G. 2007. Ecological correlates of livestock and antelope winter rangeland use in the Chang Tang Nature Reserve, Tibet Autonomous Region, China. Masters thesis, University of Tromsø, Norway.
- Dhondup K. and J.L. Fox. In prep. Tibetan antelope and livestock habitat use overlap in the Aru Basin and vicinity, western Chang Tang Nature Reserve, China.
- Fox and Bårdsen 2005. Density of chiru, kiang and Tibetan gazelle in relation to human presence across the Chang Tang Nature Reserve. *Acta Zoologica Sinica* 51: 586-597.

- Fox, J.L. and D. Tsering. 2005. Biodiversity conservation and natural resource exploitation on Tibet's northwestern Chang Tang highlands. In A. Boesi and F. Cardi, eds. *Wildlife and plants in traditional and modern Tibet: conceptions, exploitation and conservation*. *Memorie della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale di Milano, Italy*, 33: 49-57.
- Fox, J.L. and D. Yangzom 2005. A research project on wildlife, nomads and conservation in the Chang Tang Nature Reserve. University of Tromsø, Norway.
- Fox, J.L., C. Yangzong, K. Dhondup and T. Dorji. In press. Biodiversity conservation and pastoralism in the Tibetan Chang Tang; coexistence or conflict? *J. Int. Assoc. of Tibetan Studies* 00:000-000.
- Fox, J.L. and T. Dorji. In press. Tibetan antelope traditional hunting, its relation to antelope migration, and its rapid transformation in the western Chang Tang Nature Reserve. *Arctic, Antarctic and Alpine Research*.
- Fox, J.L. and K. Dhondup. In prep. Habitat suitability mapping for wild ungulates in the Aru Basin, western Chang Tang Nature Reserve, China.
- Schaller, G.B 1998. *Wildlife of the Tibetan Steppe*. Univ. Chicago Press, Chicago. 373 p.
- Yangzong, C. 2006. The household responsibility contract system and the question of grassland protection: a case study from the Chang Tang, northwest Tibet Autonomous Region. Masters thesis, University of Tromsø, Norway.
- Wangdwei, M. 2004. Habitat selection by sympatric chiru (Tibetan antelope) and Tibetan gazelle in the Aru Basin, Chang Tang Nature Preserve, Tibet Autonomous Region, China. Masters thesis, University of Tromsø, Norway.
- Wangdwei, M. and J.L. Fox. in press. Habitat selection by sympatric chiru (Tibetan antelope) and Tibetan gazelle in the Aru Basin, Chang Tang Nature Reserve, China. *Acta Zoologica Sinica* 00:000-000.



Appendix I: Tibet Autonomous Region student and other professional participation in the University of Tromsø Chang Tang project.

Mr. Migmar Wangdwei, a lecturer in the Department of Biology, Faculty of Science, Tibet University (TU), completed his masters thesis at the University of Tromsø in June 2003 with a study on “Habitat separation between Tibetan antelope and Tibetan gazelle in the Aru Basin, Chang Tang Nature Reserve. Mr. Tsechoe Dorji (TU, College of Agriculture and Animal Husbandry) completed a masters degree at the University of Tromsø in June 2006, with a thesis entitled “A test of rangeland ecological theory using grazing gradients in the Aru Basin, northwestern Chang Tang, Tibet, China”. Also in June 2006 Ms. Ciren Yangzong (TU, Department of Geography) completed her masters degree, with a thesis entitled “The household responsibility contract system and the question of grassland protection”. And in 2007 Mr. Kelsang Dhondup of the Tibet Academy of Agriculture and Animal Science (TAAAS) completed his masters degree in October 2007 with a thesis entitled “Ecological correlates of livestock pasture and Tibetan antelope habitat use during winter in the Aru Basin, Chang Tang Nature Reserve, Tibet”.

All the above individuals have participated in project field excursions to the Aru Basin, and others that have cooperated in the fieldwork there include Ms. Beimatsho of the Tibet Academy of Social Science (TASS), Mr. Dhondup Lhagyal (TASS), Mr. T. Tsering (TU, Dept. of Biology) and Mr. Xu Binrong (TAR Forestry Bureau). The project has also cooperated with Mr. Dawa Tsering from TASS and WWF China (Lhasa office) regarding human-wildlife conservation issues. Network for University Cooperation Tibet – Norway has supported a TASS project (Mr. Dhondup Lhagyal, Dr. Ben Jiao) on development in the eastern part of the Chang Tang reserve. And beginning in 2007 the Network is supporting TASS in a cooperative 3-year project (with University of Tromsø) on “nomadic studies” that has initially dealt specifically with the issue of fencing in the Chang Tang, and will continue with other aspects in the coming years.

