

Herder Community-based Conservation Project:
Monitoring Impacts to Wildlife & Other Natural Resources

WORKSHOP PROCEEDINGS



Organizers & Participants:

Eastern Steppe Herder Communities

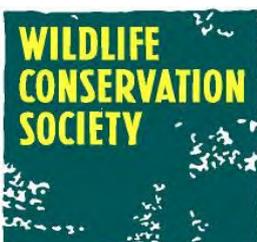
Wildlife Conservation Society (WCS) Mongolia Program

Dornod Protected Areas Administration (PAA)

Eastern Mongolia Community Conservation Association (EMCCA)

27 – 28 September, 2007

Choibalsan, Dornod



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Ulaanbaatar 2008

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Photo Credits:

Ann Winters – pages 6, 8, 1st photo page 10, pages 24, 25, 28, 32

S. Bolortesteg – 2nd photo page 10

EXECUTIVE SUMMARY

The main purpose of this workshop was to initiate monitoring efforts of impacts/threats to wildlife and natural resources in community-managed areas. To accomplish this, herder community group (HCG) leaders and volunteer rangers were brought together to collectively develop a system for recording information about these impacts. First, participants heard about the role and responsibilities of volunteer rangers, a main part of which is recording information about illegal wildlife and natural resource use. Then, an international expert offered examples of how volunteer rangers protect wildlife in other countries in Asia, and charged volunteer rangers in Mongolia with documenting impacts to wildlife and discouraging wildlife crime in their community-managed areas. Participants then broke into groups to list impacts they thought should be recorded for wildlife, plant products, mining/oil exploration, water resources and water birds and fish.

As a way of practicing to be observant, participants walked out to an area near the Kherlen River and observed staged examples of natural resource use violations. A discussion followed about types of impacts to wildlife and other natural resources, and how these might be recorded in a form. Participants then broke into six groups to develop sections of a reporting form. These sections were compiled into a standard reporting form which will be distributed to all volunteer rangers. Volunteer rangers were asked to use this form over the next three months to record impacts to wildlife and natural resources in their areas. WCS Mongolia will map these impacts and will hold a follow-up workshop in 2008 bringing together volunteer rangers and enforcement agencies to strengthen communications between natural resource protectors.

Workshop participants also heard from the '3Test' HCGs about wildlife monitoring and management planning activities they have been performing in their community-managed areas. All participants were given an outline describing how to write management/action plans and methods for monitoring wildlife.

Recommendations

Immediate actions: 3 – 6 months

- Forms to be distributed to participants
- Participants to use forms to collect information on natural resources violations

Short-term actions: 6 – 12 months

- Meeting to be held to bring together information collected, summarize the data and map patterns of illegal activity
- Identify key threats and the seasonality or frequency of the threats, who is involved in the threats (the negative stakeholders) and who can influence these stakeholders other than volunteer rangers. Distinguish threats that can be reduced or resolved by volunteer rangers (e.g. minor infringements such as illegal plant harvest etc), and those which are beyond volunteer rangers' responsibilities and will need enforcement staff (e.g. poaching by Chinese or influential people), or higher level support to be resolved (e.g. mining by international companies).
- Present the information to *aimag* and *soum* inspectors; invite them to propose a plan of action for how information from volunteer rangers might be used in the future to help guide their patrolling schedules, inspections and enforcement activities.

Long-term actions: 12 – 24 months

- Develop a community level strategy for monitoring threats to wildlife, plants & habitats.
- Systematize the collection of natural resource violations data using computer databases and GIS.
- Establish a framework for linking this data with existing systems of monitoring threats by the government enforcement agencies (e.g. SSIA).
- Encourage enforcement agencies to use information collected by community rangers in taking action against violators.

INTRODUCTION

Efforts to develop and improve the system for enforcing environmental laws in Mongolia's Eastern Steppes have just begun with training courses for government staff. However, government staff are few and their areas of responsibility very large. At the same time, natural resource violations occur frequently and often they are not seen by enforcement staff. Consequently, there is a role for community rangers in helping reduce illegal wildlife crime and other violations. This workshop was held to provide guidance and encouragement for a small team of volunteer rangers who will take part in natural resource monitoring work and who can supplement and potentially make environmental law enforcement activities more effective.

Goals: For all volunteer rangers and leaders from herder community groups (HCGs) to:

- 1) Learn how to monitor and record information about impacts to wildlife and natural resources in their community-managed areas;
- 2) Hear about wildlife monitoring activities and management plan progress from the '3 Test' HCGs;
- 3) Have an opportunity to meet with WCS Mongolia individually to discuss wildlife monitoring methods, management plans, and specific issues in their areas.

Outputs: HCG volunteer rangers (VRs) will better understand how to record information about impacts to wildlife and natural resources in their areas. Together, we will create a standardized form for reporting impacts/threats to wildlife and natural resources. VRs will learn when and how often to go out on patrols and record impacts/threats to wildlife and natural resources.

Duration: 27 – 28 September, 1.5 days

Participants: Herder Community Groups (HCG) – Khentii, Dornod, Sukhbaatar, Dornod, Wildlife Conservation Society Mongolia Program, Eastern Mongolian Community Conservation Association (EMCCA), and the Special Protected Areas Administration (SPAA)

Venue: 1st floor of the SPAA building, Choibalsan, Dornod



Herder Community-based Conservation Project:
Monitoring Impacts to Wildlife & Other Natural Resources

AGENDA

Lecture/Activity	Date	Time	Presenter
Meeting with 3 'Test' Herder Community Groups (HCGs) – Bayan Ukhaa, Yusun Erdene, Zegestei	26 Sept	13:00	- Ann Winters - S. Bolortsetseg
Registration and Reception	26 Sept	18:30	- ALL
Day 1 – Wildlife & Natural Resource Protection: Monitoring Impacts			
Welcome and Opening	27 Sept	8:30	- Dagvasuren
Introduction of Guest Speakers – Monitoring impacts to wildlife and natural resources	27 Sept	8:50	- Ann Winters
Job Description for a Volunteer Ranger	27 Sept	9:00	- Bolortsetseg
How Volunteer Rangers Can Protect Wildlife: International Case Studies	27 Sept	9:30	- Antony Lynam
<i>Tea Break – Turn in Participant Questionnaire</i>	27 Sept	10:45	
Breakout Session I – list your group's Conservation Targets	27 Sept	11:00	- Ann Winters - Bolortsetseg
Breakout Session I – 5 groups (wildlife, plant products, rangeland, mining/oil exploration & water resources) * Monitoring Impacts - What types of observations does a volunteer ranger record and report?	27 Sept	11:15	Facilitators: Ann Winters Bolortsetseg
Present group findings/Discussion – big paper * Each group presents their list for one of the categories.	27 Sept	12:30	“
Lunch	27 Sept	13:30 – 14:30	
Present group findings/Discussion – big paper * Each group presents their list for one of the categories.	27 Sept	14:30	“
Field Exercise: Observing violations	27 Sept	15:30	Facilitator: Antony Lynam
<i>Tea Break</i>	27 Sept	16:30	
Discussion – What are the parts of a reporting form?	27 Sept	16:45	Facilitator: Antony Lynam
Dinner	27 Sept	18:30 – 20:00	
Movie – “Planet Earth: Great Plains”	27 Sept	20:00	

Day 2 – Wildlife & Natural Resource Protection: Monitoring Impacts			
Overview of Day 1	28 Sept	8:30	- Bolortsetseg
Breakout Session II – 6 groups * Create a reporting form – 6 parts	28 Sept	9:00	Facilitator: Antony Lynam
Reporting Form: Present group findings/Discussion – big paper	28 Sept	10:00	“
<i>Tea Break</i>	28 Sept	11:15	
When to make observations: - when impacts occur frequently – <i>hunting season</i> - consistent data collection - collect data for the next 3 months, map in January	28 Sept	11:30	Facilitator: Ann Winters

Presentations from 3 Test HCG's – wildlife monitoring and management planning in their areas	28 Sept	12:00	
Workshop Feedback/Discussion: - Legal/illegal wildlife impacts TEST - VR Evaluation form – <i>turn in</i>	28 Sept	13:00	Facilitator: Bolortsetseg Olziitumur
Closing Remarks	28 Sept	13:50	Antony Lynam
Lunch – Closing of Workshop	28 Sept	14:00	

Meetings with HCGs: - Parts to a management plan - Wildlife monitoring methods: Scan sampling & horseback routes	28 Sept	16:00 – 18:30	- S. Bolortsetseg - Ann Winters
Movie – “Planet Earth: Deserts”	28 Sept	20:00	

Meetings with HCGs: - Parts to a management plan - Wildlife monitoring methods: Scan sampling & horseback routes	29 Sept	9:00 – 17:00	- S. Bolortsetseg - Ann Winters



WORKSHOP PARTICIPANTS

	Soum	Bag, Location	HCG Name	HCG Leader	Volunteer Ranger
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Attended training:

Dornod					
1	Matad	Khureet Bag 1	Bag Huree	N. Adia	
2	Matad	Bag 3	Bayan Burd	J. Hyambu	
3	Bayandun	Hairkhan	Bayan Ukhaa	D. Hatsagdorj	N. Nanzaddorj
4	Matad	Zuunbulag	Bayankhangai		Purevdorj
5	Dashbalbar	Chukh nomint	Daguurin Shines	B. Damdindorj	Ochirbat
6	Gurvan zagal	Rashaant	Delger Munkh	S. Byambaa	Ankhtsetseg
7	Bayantumen	Khotont nuur	Khotont	Ts. Otgonbaatar	
8	Bulgan	Khulsanshand Bag 2	Khulsanshand	N. Erdenechimeg	Khureltulga
9	Dashbalbar	Chukh nomint	Chukh Nuur	Ch. Urjinkhand	Gundegmaa
Sukhbaatar					
10	Sukhbaatar	Buyantbulag	Buyant	M. Damdindorj	
11	Dariganga	Ganga sodot	Ganga Sodot	D. Batbold	Sansartuya
12	Erdenetsagaan	Bag 7	Zegestei	Ts. Enkhtsetseg	Batsaikhan
13	Erdenetsagaan	Bag 1	Moilt		Sh. Erdene
Khentii					
14	Bayan owoo	Sumber	Yusun Erdene	Kh. Purevdorj	Monkhbaatar
			<i>14 HCGs</i>	<i>12 HCG Leaders</i>	<i>10 VRs</i>
					<i>22 people</i>

Did not attend:

Dornod					
1	Matad	Khureet Bag 1	Bag Huree	<i>attended</i>	Jargalsaikhan
2	Matad	Bag 3	Bayan Burd	<i>attended</i>	Gantulga
3	Matad	Zuunbulag	Bayankhangai	O. Sukhchuluun	<i>attended</i>
4	Баянтүмэн	Khotont nuur	Khotont	<i>attended</i>	Bayar
5	Khalkh gol	Khalkh gol	Buit Nuur	N. Monkhdalai	Tomorbat
6	Chuluunkhorot	Galuut	Bus Galuut	S. Monkhtsetseg	Monkhbat
7	Chuluunkhorot	Ulz	Buyankhishig	-	-
8	Chuluunkhorot	Galuut	Dotuur Bulag	S. Byambaa	Gankhuyag
9	Matad	Zuun bulag	Noos	-	Monkhorgil
10	Khalkh gol	Tashgai, Bag 3	Tashgai	O. Tungalag	Batlai
11	Chuluunkhorot	Ulz	Ulz	B. Enkhgerel	Tsogoo
12	Bayantumen	Bat 1	Shaazan Nuur	J. Enkhjargal	Purevsuren
13	Sergelen	Bat 2,4	Yakhi Nuur	Ch. Povdorj	Togtokh
Sukhbaatar					
14	Sukhbaatar	Buyantbulag	Buyant	<i>attended</i>	Damdinpurev
15	Erdenetsagaan	Bag 1	Moilt	D. Monkho	<i>attended</i>
16	Tumentsogt	Bag 1	Khankhokhui	D. Erdene	Khandbaatar
17	Erdenetsagaan	Bag 1	Kherstei	G. Sukhbaatar	Khatanbaatar
Khentii					
18	Darkhan	Dotuur bulag	Dotuur bulag	O. Iderburged	Shuuribaatar
19	Moron	Ondorkhaan	Ondor khaan	S. Oyun	Ganbayar
			<i>13 HCGs</i>	<i>15 HCG Leaders</i>	<i>17 VRs</i>
					<i>32 people</i>

Other Participants:

J. Olziturmur	Law Enforcement Specialist	SPAA
Odmaa		SPAA
P. Amar	Toson Hustai PA Ranger	SPAA
Ch. Chinbat	Mongol Daguur PA Ranger	SPAA
D. Dagvasuren	Director	EMCCA
		<i>5 people</i>
<i>Males = 17</i>		<i>Females = 10</i>
		<i>27 people total</i>

Antony Lynam	Regional Advisor	WCS Asia Program
S. Bolortsetseg	Conservation Biologist	WCS Mongolia
Ann Winters	Conservation Program Manager	WCS Mongolia
N. Odonchimeg	Wildlife Trade Specialist	WCS Mongolia
B. Baigalmaa	Translator	WCS Mongolia
T. Batsukh	Driver/actor	WCS Mongolia

METHODS

Various short presentations were prepared for this workshop to set the tone for discussion sessions and activities over the one and a half days that participants gathered. We had learned from previous workshops that short lectures were better received, and that participants needed to be engaged more in discussions and activities. A number of breakout sessions aimed at producing a wildlife impact monitoring form followed presentations.

On the first day the workshop began with two lectures, one on volunteer ranger responsibilities and the second on international community wildlife protection. During the morning tea break participants were asked to fill out a questionnaire on their expectations for the workshop and skill levels in certain areas. This was followed by a breakout session where groups were asked to list impacts to wildlife that volunteer rangers could record and monitor. They began this activity by thinking about community group goals and objectives for wildlife conservation in their respective community-managed areas. Then, groups listed the impacts that volunteer ranges might record under five different categories. Afterwards, each group presented their list of impacts for one of the categories and all participants engaged in discussion.

During the afternoon, staged examples of natural resource use violations were used to facilitate discussion about what information should be recorded about such violations. A more in depth discussion followed about possible impacts to wildlife and other natural resources and how these might be recorded in a form. Then, participants broke up into groups to design certain parts of the reporting form. Later, each group presented the part they designed for the reporting form.

During the final session of the workshop, volunteer rangers took a "Legal/illegal Wildlife Impacts Test," and filled out an evaluation form about their skills together with their community group leaders.

Workshop Opening and Introductions – D. Dagvasuren and Ann Winters

The workshop's opening speech was given by EMCCA director Mr. Dagvasuren during the morning of September 27th. Afterwards, Ann Winters introduced the guest speaker and workshop leaders, and outlined the activities to be accomplished during the workshop.



Job Description of a Volunteer Ranger – S. Bolortetseg

A *Volunteer Ranger* shall be a Mongolian citizen over 18 years old who is authorized by the governor at an appropriate level and supports him in wildlife and natural resource conservation, management, and rehabilitation.

His/her work shall be in an area equal to or less than 125,000 hectares in the steppe region. More sites where wildlife is rare, or where land and natural resources have been overused, can be allocated to the initial area. If the additional site is a special protected area, then the Protected Area Administration shall officially appoint the size.

VR shall exercise the following full rights regarding the Environmental Protection Law:

1. Oversee implementation of the Environmental Law
2. Inspect hunting and natural resources use permits
3. Bring a temporary injunction if one didn't obtain permission, or paid the fee.
4. Document the facts for the violations such as illegal hunting, mining, and illegal utilization of natural resources, and submit a report of these to the State Environmental Control Inspectors
5. Report information on forest and steppe fires, floods and other natural disasters to the governor at appropriate level.
6. Promote natural conservation, organize and involve citizens to combat against law violations
7. Establish waste disposal points and have the citizens throw the waste away in specially designated areas
8. Protect the inflow of spring and other water sources. Take them under the local protection
9. Work in a close cooperation with the non-governmental organizations operating in the field of nature protection
10. Introduce the results of their work to the Soum Citizens Representative Khural and send their reports to Aimag Environmental Agency to have their reports assessed by them. .
11. Work under the supervision of the soum inspector and soum ranger.

A local VR must be honest, report violations or potential violations, inform relevant officials within his or her full rights and organize and involve citizens to combat against law violations. Working in close cooperation with the local government and its related bodies is strongly recommended.

Comment: Erdenebaatar, the inspector of Bayantumen soum, spoke about challenges in the steppe region and shared his work experience with the volunteer rangers: *“In principle, a VR is required to read and study relevant laws and regulations. Also it is important that the VR keep records and inform colleagues about violations that he is aware of or encounters. There are indeed many violations, that is why it is vital that the VR conducts himself professionally and asks things in a well thought-out order.”*

Approval

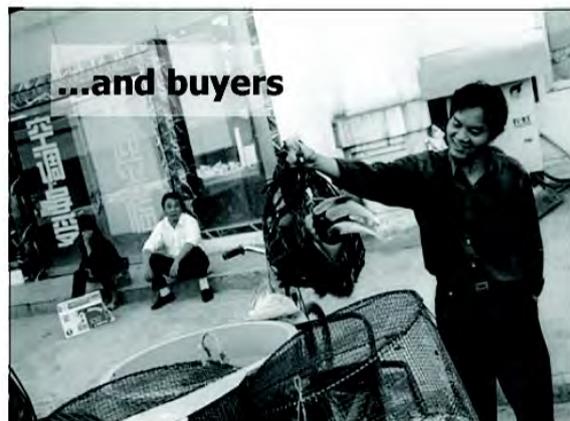
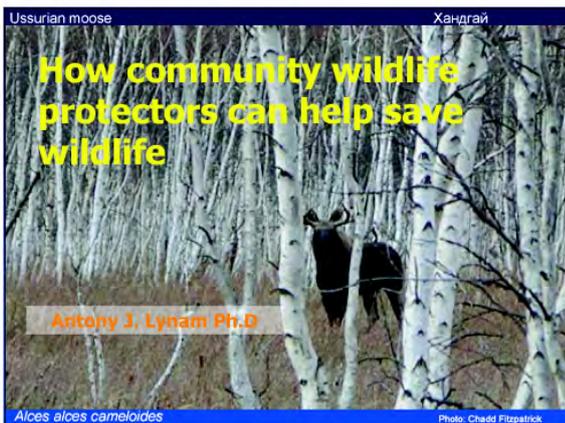
The local governor will approve the VR's equipment, including transportation, bodyguarding and communications. If the VR reports or exposes a violation, 15% of the penalty will be paid to the VR as an incentive. In addition, the 10 most successful VRs will be nominated to receive medals from the Ministry of the Nature and Environment.

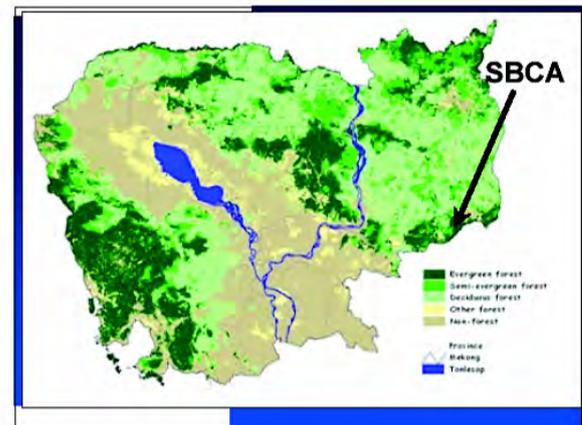
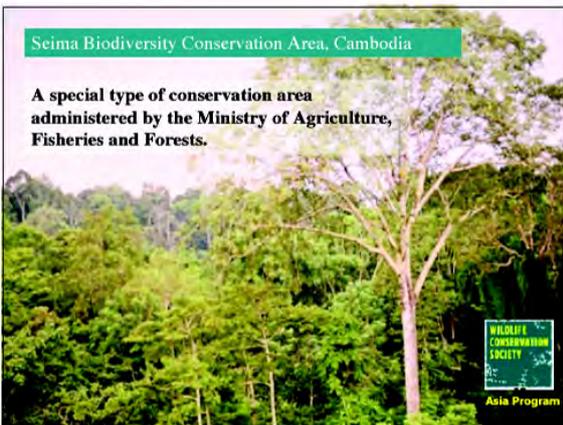
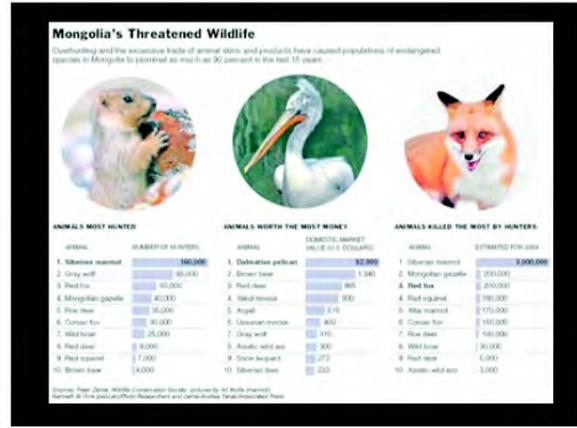
Soum governors can nominate one successful VR, whereby aimag governors can nominate three, to receive the prize or medal from the *aimag* governor.

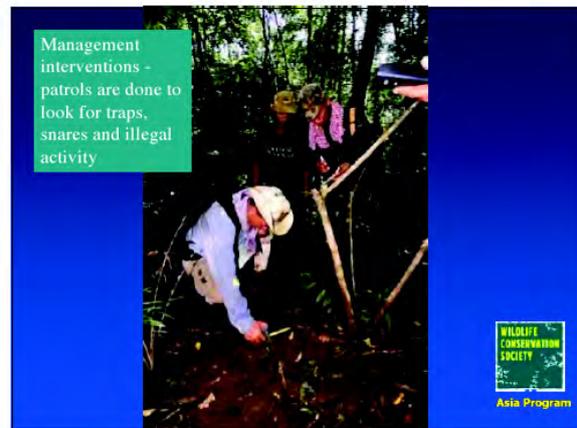
How Community Wildlife Protectors can help save wildlife: International Case Studies

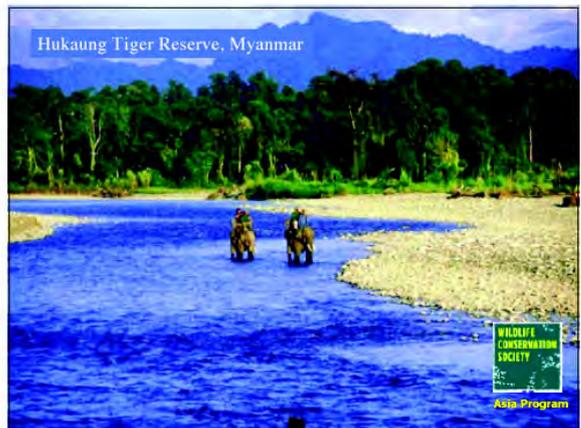
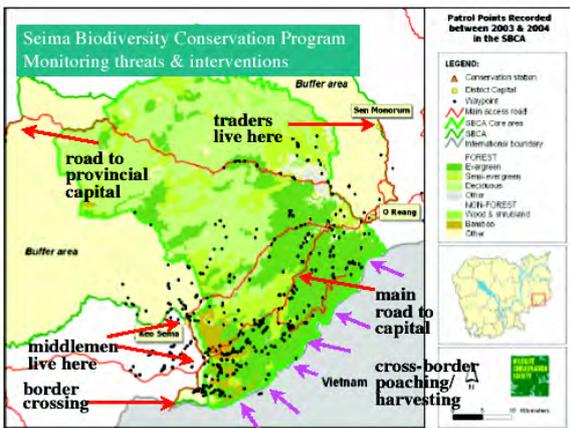
– Dr. Antony Lynam

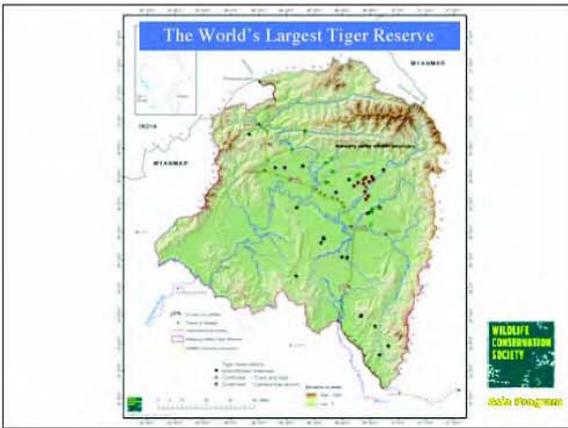
Wildlife trade involves a relationship chain involving people who supply wildlife, traders and people who buy wildlife. Currently the trade is a problem because of the inability of wildlife populations to sustain the very high levels of wildlife harvest that we are seeing in places like Mongolia, the threat of spread of infectious disease such as avian flu, and the breakdown of law and order. This has resulted in many species which were formerly abundant now at risk of extinction. Community rangers can help to reduce poaching, trafficking and illegal trade in wildlife. Examples from eastern Cambodia show how local people provide information to enforcement staff on the movements of suspected poachers and traders, leading to the disruption of their activities and sometimes arrest of individuals. In northern Myanmar local hill tribe people participate in wildlife monitoring and provide information to ranger teams about illegal activities. In Mongolia, gazelle and marmots are threatened by trade in wild meat, saker falcons and taimen are threatened by trophy hunting, and wolves are threatened by the fur trade. Community rangers are the eyes and ears of the Steppes. They can make observations and record visits of unusual people. The information over time will help to build a picture of the pattern of illegal wildlife crime in the Eastern Steppes. They can discourage wildlife crime where they see it happening. They can also provide information to State Inspectors and local police who are the people who should be taking action against wildlife crime.





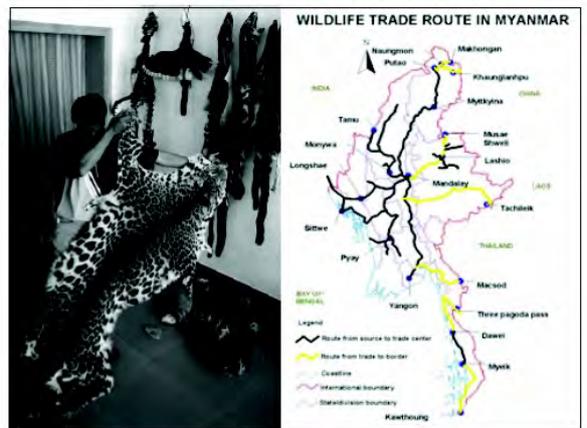


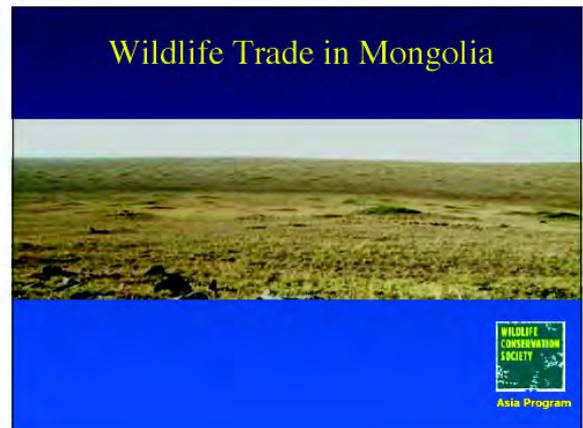




Threats

WILDLIFE CONSERVATION SOCIETY
Asia Program





Fur Trade

- Largest (volume and value)
- International Market
 - China
 - Russia (limited)
- Species
 - Marmots to Snow Leopards

Medicinal Trade

- Increases
 - Domestic & International
- Markets
 - China and Korea
- Species
 - International: bear gall bladder, siaga horn, wolf parts, musk deer glands, red deer, snow leopard
 - Domestic: marmot, wolf, badger, corsac fox, brown bear, muskrat, roe deer, musk deer, hedgehog, snow leopard, Pallas' cat and Daurian partridge

Game Meat Trade

- Domestic
 - Large Increases?
 - Local Markets
 - Restaurants
 - Species
 - Marmot
 - Gazelle
 - Moose
 - Altai snowcock



Trophy and Sport Hunting

- Increasing popular
- Promoted by Ministry of Nature and Environment
- Lack of community benefit
- Quotas often exceed recommendations



How can community rangers help?

- Participate in wildlife patrols
- Collaborate with border guards, state inspectors, park rangers
- Help monitor threats & interventions



Siberian Marmot Mongolian Gazelle



Marmota sibirica

Photo: Kirk Olson

Siberian Marmot Winter Falcon



Falco cherrug

Photo: Wildlife Conservation Society



BREAK-OUT SESSION I: *Observations/impacts volunteer rangers record and report*

- *Participants broke up into 5 groups*
- *Each group listed their Conservation Objectives*
- *Each group was asked to list impacts to: wildlife, plant products, mining/oil exploration, water resources and water birds/fish*
- *Groups were asked to present on one of the 5 categories*

Group 1 - Impacts to Wildlife

Mongolian gazelle:

- Poaching wildlife, so wildlife trade needs to be banned
- Pasture degradation due to over harvesting of hay
- Habitat is occupied by local and alien herders and their livestock
- Water resource has been reduced
- Climate has changed
- Permission is given for hunting many gazelle

Siberian Marmot:

- Trap use has become more common, and needs to be banned
- Marmot value has increased and its trade needs to be banned
- Marmot hunting enabled Brand's vole's population grows and that in turn degraded pasture
- Inspection at border area has not been as good as supposed to be
- Areas are prone to fire, because these are so dry

Comment from Amaraa, Toson Khulstai Ranger, & Chinbat, Chukh eco-tour: The incentive system needs to be implemented – i.e. 15% of the fines should be given to volunteer rangers for violations they report. As a VR, we often find and confiscate traps. It would be good if there was an incentive system for this. Traps and other similar tools have a greater impact on wildlife – they can kill all the marmots in one colony.

In particular, falcons and gazelle living in Toson Khulstai Nature Reserve have been greatly impacted recently. The land use practices for this area have changed and are not ideal for wildlife. Toson Khulstai is now heavily used for livestock and hay production. So, governors must change the status of this Nature Reserve to a National Park.

Group 2 - Impacts to Plant species

	Herder Community Group		
	Ganga,	Buyant,	Khulsan Shand
1. Tavan salaa (plantain)	+	+	+
2. Gishuugene (rhubarb)	-	+	+
3. Nokhoin khoshuu (<i>Rosa canina</i> or dog rose)	+	+	+
4. Khar uvs (black grass)	+	-	-
5. Chiher uvs (licorice – <i>Glycyrrhiza glabra</i>)	+	+	+
6. Taana (wild leek)	+	+	+
7. Mangir (wild onion)	+	+	+
8. Ganga (<i>Thymus vulgaris</i>)	+	+	+
9. Altanzul (yellow tulip, <i>Tulipa</i> genus)	-	+	+
10. Ulaalzgana (redcurrant)	+	+	+
11. Sud uvs (burnet, <i>Sanguisorba</i> and <i>Poterium</i> genus)	+	-	+
12. Burgas (willow)	+	-	-
13. Moil (wild bird cherry, <i>Prunus padus</i>)	+	-	-
14. Nariin saraana (eggplant of redcurrant)	+	+	+
15. Derveger Jirveger (root of an E. Steppe grass)	-	+	+

The above mentioned plants are useful for the following:

- medicine
- food (food additive)
- beauty products, including skin care cosmetics as well as indoor and outdoor decoration, scent etc.
- fodder for livestock
- household use, such as for building fences for livestock.
- Especially useful plants: Plantain, *Rosa canina*, *Glycyrrhiza glabra*, Wild leek, Wild onion, *Sanguisorba*, Redcurrant etc.
- Decreasing plant species: Willow, Rhubarb, Wild bird cherry, Redcurrant, Yellow Tulip, *Thymus Vulgaris*

Why the species have become rare and what is the impact?

- Climate change
- Overgrazing
- Herders breed more goats and more horses nowadays, to collect more cashmere
- Illegal picking of plants, such as wild berries etc., for trade with the Chinese or at domestic markets due to the people's need and the plants' increased value.
- Commonly use the plants in the country as well as abroad.
- No rehabilitation is being done
- Gishuugene (rhubarb), burgas (willow), moil (wild bird cherry, *Prunus padus*), ulaalzgana (redcurrant), and altanzul (yellow tulip, *Tulipa* genus) have become very rare plants.
- Fire
- Chemical pollution: garbage such as glass and plastics

Solutions:

- Introducing proper pasture management methods
- Limit herds of horses to 250 head in a given area
- Cows < 100 to 150 head
- Camels – not many. Proper research-based regulations need to be introduced now, in order to restore pasture.

Group 3 – Impacts mining has on wildlife and natural resources

- Sand movement and desertification has intensified, creating loose dust; the earth's surface has become more rough and damaged.
- Mining staff hunt local wildlife and usually occupy wildlife habitat and over hunt populations.
- Water resources have become scarce because mining companies use water resources and a great amount is transported to China. Four big, new wells have been established since 1996, and their capacity is about 30 tons, which fills in 15 minutes of pumping. The wells do not have water meters. There are around 30 heavy big trucks transporting water to China every day, in the mornings and evenings. Each truck has about 35 tons capacity. Locally there is no body that provides inspection and law enforcement.
- Rehabilitation is not being done
- The vegetation structure has been changing; e.g. Derveger Jirveger
- The Brandt's vole's population is increasing
- Chemical substances that harm the environment are spread, or transported and stored.
- Mining staff are picking herbal and endangered plant species illegally, or encourage local people to pick and sell these plants to them.
- Local families move along the mining deposits, hoping that mining will provide work or trading opportunity.
- Increases in wildlife disease
- The intense transportation has made the road wide and dusty. This affects the steppe ecosystem, e.g. the wildlife population is disrupted due to the separation by car movement.
- Mining companies are receiving deposit exploration licenses, which make local people think that they can't do anything about the exploration, and it encourages corruption of both the local and the state authority (e.g. *aimag* governor, etc.). Initially, licenses were given to explore potential oil deposits in the Menen area of the Eastern Steppe, and start mining in 2008, but the mining company has been digging, mining and transporting resources out of the country since in February 1996.

Threats to the locality:

- The local governor and relevant officials do not have knowledge about law, so they usually do not know how to conserve and enforce environmental laws.
- Local people have no knowledge about how natural resources (especially oil and other deposits) should be used and how rehabilitation needs to be done, according to the law, so the people do not know how to combat with this phenomenon.
- There are no solutions to the unemployment, underdevelopment, or poverty issues locally.
- No investment in local development (no initiatives to improve kindergartens or schools, hospital facilities, etc; they don't purchase food from the local population, everything they eat is transported from China, including their electrical supply; no construction of wells for the local people's sake, etc.).
- There is no payment for water use, or a percentage from legal or illegal hunting paid to the local government budget.

- Poor communication with Environmental bodies because of circumstances, i.e. long distances or lack of communication tools such as transport, equipment, etc.
- No incentive for VRs' work or higher authorities do not support and help VRs to enforce the law. Occasionally authorities pressure VRs and the local residents and discourage efforts to fight against over hunting and overuse of the natural resources and wildlife.
- There is no tax or fee collected from visitors with heavy transports. The roads have become widened and been broken and that creates loose dust and sand movement.
- Customs checks and environmental inspections at the border area are inappropriate and weak.
- False information is reported to the state newspapers and creates a false belief amongst the general public of Mongolia, but it comes from a higher authority. Thus, a minority of the people participate in corruption and benefit from this cooperation.
- Rehabilitation is not done as such.
- Local people are unhappy to see how much Chinese companies take away from the natural resources and ruin land making it empty. The Menen area of the Eastern Steppe has become a 'Chinese Sand Prairie.'

Group 4 – Impacts to Water Resources (Daguur Shines, Chukh, Bayan-Ukhaa)

	Past Number (for each HCG)	Current Number (for each HCG)
1. Lakes	$2+2+10 = 14$	$0+2+1 = 3$
2. Springs	$6+3+11 = 20$	$3+3+4 = 10$
3. Rivers	$1+1+1 = 3$	$0+0+0 = 0$
4. Hand wells (that uses buckets to take water)	$10+8+1 = 19$	$15+10+6 = 31$
5. Kashkas well (Russian equipment-old well)	$0+4+3 = 7$	$0+2+0 = 2$
6. Motor wells (that uses Chinese modern pump)	$0+3+1 = 4$	$1+1+0 = 2$

Past and current impacts:

1. Climate change; drought increases evaporation of water from the water bodies.
2. Too many herder families are concentrating/residing constantly near water resources; this results in:
 - increased numbers of livestock
 - overgrazing of pasture
 - organic pollution of water sources that, in turn,
 - decreases water quality and water quantities.
3. Water resources that aren't protected from human impact (i.e. unfenced water resources) or from organic pollution have shrinking water reserves.
4. No enforcement of the law; hunters take advantage of loopholes in the Environmental Law.
5. Mining companies leave or create chemical pollution.
 - Wood processing
 - Fire

Consequences:

- It has been drier and hotter during the past few years resulting in more evaporation.
- Shortage of clean/fresh water.
- Habitat for fish and prey animals for the water birds have become rarer. Ecosystem balance is ruining.
- Desertification has become intense and covers vast areas. Pasture is degraded.

- Brandt's vole's population is increasing.

Possible solutions:

- Fences can be built around spring resources.
- Encourage local people to get together and establish herder community groups to protect nature and its resources such as wildlife.
- Work closely with the local government and allocate a budget to organize activities against drought; and introduce irrigation systems to some areas.
- Work closely with water resource research officials and invite them to investigate our area to diagnose and provide a map with data (i.e. where to make a deep-well, etc.).
- Organize local herders and discuss a new law proposal to protect pasture. Also, discuss how to enforce the law.
- Advertise locally to educate the people about ecology and its issues via mass media such as secondary school program, kindergarten education program, local radio, TV, newspaper, books, movies, posts, etc.
- Introduce a water meter system for the local wells.
- Research the local water resource level, its quality, etc.
- Clean and separate organic pollution from the water resources.

Group 5 – Impacts to water birds and fish

Impacts to water birds:

	<i>now</i>	<i>in the future</i>
1. Lark	many	no degradation
2. Dove	many	will be degraded
3. Saker Falcon	rare	rarer
4. Eagle	normal	normal
5. Demoiselle Crane	rare	rarer
6. Duck	rare	rarer
7. Pied Avocet	normal	rare
8. Swan	many	rare
9. Great Bustard	rare	shall become extinct
10. Common cuckoo	rare	rarer
11. Woodpecker	rare	rarer
12. Magpie	rare	rarer

<i>Impacts to fish:</i>	<i>Before</i>	<i>Now</i>	<i>Threats</i>
1. Ulz River	small fish mollusk, silver carassius	dried completely in 2007	the bird's food has become rare habitat is degraded
2. Duch River	full with small fish	dried up in 1998	Water quality decreasing
3. Ihk Dalai Lake	full water with small fish, mollusk, silver carassius, shell	fish species are increased	organic pollution from the herder life stocks

4. Baga lake	mollusk	no fish	chemical pollution from mining operation and organic pollution from the herder life stocks, human and dogs, fire affect the birds' population go down
5. Tolin Lake	full water with small fish, mollusk, silver carassius	water level is much decreased	bird population is generally decreased water bird immigration routes have changed
6. Uvugt khar Lake	mollusk, silver carassius	2004 year dried	
7. Huh Lake	mollusk, silver carassius	no fish, water decreased	growing need of trading by fish result in over fishing
8. Chukh Lake	mollusk, silver carassius, shell	no fish since 2006	lack of law enforcement to protect the species

Negative impacts to bird and fish species:

- bird flu has occurred in the country
- over hunting or illegal hunting
- the need of the birds, the market for their organs grew, so businesses has increased
- Lack of education or information about the birds' habitat and their lifestyle, protection, etc.
- lack of finance to protect species



Observing violations – A field exercise

Community rangers can make observations of suspected illegal activity in the course of their normal activities. Rangers should be observant and record all details of unusual occurrences they see. As a way of practicing to be observant, participants walked out to an area near the Kherlen River to observe staged examples of natural resource use violations involving two camps; 1) an illegal fishing camp, and 2) an illegal plant gathering camp. Participants made observations at each of these camps and discussed what information should be recorded. They also discussed how the suspects might be approached, what they would say and what they would not say to them.

What are the parts of an impacts reporting form? – A discussion

In order to standardize the collection of information on natural resource violations, reporting forms need to be developed and distributed. However, such reporting forms do not yet exist for use by community rangers. Dr. Antony Lynam led a discussion about possible impacts to wildlife and other natural resources and how these might be recorded in a form. Participants offered suggestions on six different parts of a form: 1) general information, 2) transportation, 3) people, 4) wildlife and plants, 5) weapons, and 6) camps. Participants broke into groups to discuss how to design the forms.



BREAK-OUT SESSION II: *Creating a reporting form – 6 parts*

1. *General Information*

Location	Date	VR name	Longitude Latitude	Time: -start -end	Habitat

2. *Transportation*

Type of transport	Name of traveler	Purpose of travel	Make & Model	License # of car	If on horse, the brand
<ul style="list-style-type: none"> ▪ On foot ▪ Horseback ▪ Motorcycle ▪ Boat, ferry <i>Vehicle</i> <ul style="list-style-type: none"> ▪ car ▪ truck 					

3. *People*

Purpose of travel	
From..... To.....	
Number of travelers	
Documents /name and number/	
Person's appearance, including clothes	
Kind of hunting Permission - <i>expiration date</i> - <i>quantity permitted</i>	

4. *Wildlife and Plants*

Purpose of hunting	
Species	
Age	
Male or Female	
Quantity	
How much time passed since hunting?	
Tracks	

5. *Weapons*

Type of weapon	Owner's certificate	Notes
<ul style="list-style-type: none"> ▪ Gun ▪ Net ▪ Trap ▪ Fishing pole ▪ Metal wire ▪ Ship ▪ Spotlight 		

6. Camps

Occupied		Violation	How long ago?
People present/not present	Things present		

When to Make Observations – A discussion

During a discussion about when VRs should make observations, Amaraa, Toson Khulstai's PA Ranger, reminded everyone that a volunteer ranger is not expected to patrol areas, but should record wildlife and natural resource violations when they are out herding their livestock, and report these incidences to the local authorities (i.e. *soum* inspector or PA ranger). Members also agreed that the fall was an important time of the year to be alert for violations because this is the main season for hunting wildlife in Mongolia.

WCS Mongolia asked VRs to record impacts to wildlife and other natural resources over the next three months and present this information in January at the annual EMCCA meeting in Choibalsan. WCS Mongolia's GIS Specialist will facilitate mapping these impacts and discuss this information with VRs and *soum* inspectors during a follow-up workshop.

Presentations by '3 Test' Herder Community Groups – Zegstei, Yuson Erdene & Bayan Ukhaa

Representatives from each of the '3 Test' HCGs were asked to present their recent wildlife monitoring and management plan drafting activities. VRs from each of these groups are conducting wildlife surveys via horseback along 10 km transects. They are also surveying marmot colonies in certain areas using a scan sampling methodology which involves scanning for marmots for 5 minutes and recording observations, then waiting for 15 minutes before the next scan. This process is repeated four times during each scan sampling session. Each of the '3 Test' groups chose certain times of the year to scan sample for marmots during the spring, summer and fall based on marmot ecology and periods of hunting pressure.

Zegstei – Enkhtsetseg, leader: This group has been scan sampling for marmots during the early morning of one day each week in a 2 ha area. In the past there were only 2 marmot burrows in this area, but this number has increased to 5 or 6. White-tailed gazelle numbers have been low in this area in the past, but are steadily increasing, especially during this past summer (2007).

Yuson Erdene – Monkhaatar, volunteer ranger: This group has also begun scan sampling for marmots in an 8 ha area during the early morning of one day each week. In 2002 there were 20 marmot burrows in this HCG's area, but the number of burrows has increased to 30 since then. Many white-tailed gazelle migrated to this area in 2002, but since then the number has decreased dramatically, especially in 2005.

Bayan Ukhaa – Natsagdorj, leader: This group's VR position had recently been designated to a new person, so wildlife monitoring data had not been collected. This group's leader gave a brief summary of the HCG's activities and plans for wildlife management and monitoring.

Workshop Feedback & Discussion – final bits

- Legal/illegal Wildlife Impacts Test – all volunteer rangers completed a test on legal and illegal wildlife use (Appendix III).
- Volunteer Ranger Evaluation form – volunteer rangers and leaders filled out a VR evaluation form together (Appendix IV).

Closing Remarks – Dr. Antony Lynam

Who is a volunteer ranger? In closing, it is important to keep in mind the kinds of people who make good, responsible rangers. These are people who like the outdoors, have an appreciation for nature, are upstanding citizens that show exemplary behavior towards other people, and are professionals. They are protectors, policemen, data collectors, resource managers, public relations officers and public safety officers. Some participants may not be suited to the task whereas others may be very good at their jobs as volunteer rangers.



RESULTS

Twenty three participants completed a questionnaire about their expectations for the workshop and their skills in certain areas at the beginning of the workshop (Appendix II). Most participants expected to learn about how volunteer rangers can stop illegal wildlife trade, conduct patrols and carry out enforcement, and implement the law (question 1, Table 1). Almost half of the participants had attended official wildlife trainings held by outside agencies (question 2.1, 48%), although a significant number of participants had no previous training (35%). Participants who had obtained training received it either from WCS Mongolia or the Eastern Steppe Biodiversity Project (ESBP) (question 2.2). Most participants had never received map and compass use training (question 2.3, 43%), or had received basic training (30%). Those who had received navigational training attended either the WCS VR training in 2007, or an ESBP ranger training. Over half of participants had received basic wildlife identification and monitoring training (question 2.4, 52%) either from WCS Mongolika or the ESBP. A third of participants had received basic training in patrol and reporting techniques (question 2.5, 35%), or had never received this training (30%). Participants who had received this training attended the WCS VR training in 2007, ESBP ranger training, or the Eco Asia Institute.

Table 1: Summary of 23 workshop participant responses to a questionnaire about their expectations for the workshop and their skills in certain areas.

		<i>Question Number / Number of Participant Responses</i>								
		1	2.1	2.2	2.3	2.4	2.5			
<i>Response</i>	<i>a</i>	13	8	Previous WCS training: wildlife and pasture conservation; ESBP training	10	WCS/EMCCA May '07 VR training; 2001 ESBP ranger training; High School	4	WCS/EMCCA May '07 VR training; 2002 Dronod training; ESBP	7	WCS/EMCCA May '07 VR training; 2001 ESBP ranger training; Eco Asia institute
	<i>b</i>	16	7		7		12		8	
	<i>c</i>	17	11		5		3		3	
	<i>d</i>	10	1		0		0		0	
	<i>e</i>	0	1		0		0		0	

In order to gain baseline data on VR knowledge and performance they were asked to complete a test on hunting regulations at the end of the workshop (Table 2; Appendix III). The average test score was 57% among VRs (range 0.8 – 0.3).

Table 2: Summary of Volunteer Ranger scores for a test on hunting regulations given at the workshop on 28 September 2007.

Herder Community Group	VR Name	Test Score
<i>Bayan Burd</i>	<i>Olziiduuren</i>	0.8
<i>Bayankhangai</i>	<i>Purevdorj</i>	0.5
<i>Bayan Ukhaa</i>	<i>Nanzaddorj</i>	0.8
<i>Buyant</i>	<i>Gilegsenge</i>	0.3
<i>Chukh Nuur</i>	<i>Gundegmaa</i>	0.7
<i>Daguurin Shines</i>	<i>Damdindorj</i>	0.5
<i>Delger Munkh</i>	<i>Ankhtsetseg</i>	0.6
<i>Yuson Erdene</i>	<i>Munkhbaatar</i>	0.6
<i>Ganga Sodot</i>	<i>Sansartuya</i>	0.6
<i>Khulsanshand</i>	<i>Khureltulga</i>	0.4
<i>Moilt</i>	<i>Erdene</i>	0.4
<i>Zegstei</i>	<i>Batsaikhan</i>	0.6
Average		0.57

Nine out of ten VRs, and their HCG leaders, if present, filled out an evaluation form that will be used to track how effective workshops and trainings are in the future. They were asked to rate themselves from 0 to 10 (10 being highest skill level) in the following 14 areas:

1. Knows and understands duties of a Volunteer Ranger.
2. Understands what wildlife and natural resource impacts to monitor.
3. Understands how to use the monitoring form.
4. Has created a schedule and knows when to do patrols.
5. Understands the difference between a goal and objective.
6. Understands how to conduct wildlife surveys.
7. Understands and can perform scan sampling for marmots.
8. Meets with HCG members and educates them about wildlife and natural resource management and protection issues.
9. Organizes and involves citizens to combat against law violations.
10. Writes reports about impacts to wildlife and natural resources.
11. Presents reports to the Soum Citizens Representative Khural and aimag Environmental Agency.
12. Works closely with non-governmental organizations operating in the field of nature protection.
13. Has established waste disposal points in their area.
14. Works closely with the soum inspector and soum ranger.

In general, participants rated themselves at a minimum ability for their initial skill level in the 14 areas (mean = 2.5, range 0 – 9; Table 3). Target levels were, on average, equivalent to a high intermediate ability (mean = 6.6, range 0 – 10). Volunteer Rangers will periodically be asked to fill out this evaluation during future workshops, trainings and meetings.

The key result of this workshop was a monitoring form for Volunteer Rangers and other HCG members (Appendix V). Individuals will use this form to record impacts to wildlife and natural resources as well as natural resource use violations in their community-managed areas. Copies of this form were sent out to 14 active HCGs in October. This information will be compiled and mapped at a follow-up workshop in January or February.

Herder Community Groups had an opportunity to meet with the WCS Mongolia staff at private meetings during the second half of the last day (Appendix VI). During these meetings HCGs voiced their concerns about wildlife and natural resource conservation in their areas, as well as problems with law enforcement and community fund development. Some HCG representatives also offered their ideas for natural resource conservation and community development in their areas, and expressed interest in working with the WCS Mongolia program more closely.

Table 3: Summary of initial and target ratings nine Volunteer Rangers gave for their abilities in 14 different areas on an evaluation form filled out together by Volunteer Rangers and HCG leaders.

No Ability	Minimum Ability			Intermediate Ability			Advanced Ability			Expert
0	1	2	3	4	5	6	7	8	9	10

Question Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	HCG	Ratings														
	<i>Zegestei</i>	<i>Initial</i>	4	5	5	4	5	5	3	0	3	0	0	3	0	1
	VR Name	<i>Target</i>	5	6	7	8	7	6	5	1	5	1	1	4	3	5
	<i>Batsaikhan</i>	<i>Final</i>														
2	HCG															
	<i>Chukh-Lake</i>	<i>Initial</i>	4	3	3	4	4	4	6	5	5	4	0	7	7	5
	VR Name	<i>Target</i>	7	5	5	6	6	7	8	7	7	6	0	9	9	7
	<i>Gundegmaa</i>	<i>Final</i>														
3	HCG															
	<i>Daguur shines</i>	<i>Initial</i>	6	6	6	6	6	6	6	6	9	6	6	6	6	6
	VR Name	<i>Target</i>	9	9	9	9	9	9	9	9	10	9	9	9	9	9
	<i>Damdindorj</i>	<i>Final</i>														
4	HCG															
	<i>Bayan ukhaa</i>	<i>Initial</i>	4	4	0	4	4	3	4	3	4	4	0	4	0	0
	VR Name	<i>Target</i>	7	7	4	7	7	6	7	6	7	7	4	7	4	4
	<i>Nanzaddorj</i>	<i>Final</i>														
5	HCG															
	<i>Khulsan shand</i>	<i>Initial</i>	1	0	0	0	0	0	0	0	0	0	0	3	1	0
	VR Name	<i>Target</i>	7	5	5	8	9	6	9	5	9	8	8	4	9	9
	<i>Khureltulga</i>	<i>Final</i>														
6	HCG															
	<i>Delgermonkh</i>	<i>Initial</i>	4	6	6	6	5	6	6	6	9	3	0	5	9	8
	VR Name	<i>Target</i>	4	6	6	6	5	6	6	6	9	6	0	6	9	9
	<i>Ankhtsetseg</i>	<i>Final</i>														
7	HCG															
	<i>Bayan khangai</i>	<i>Initial</i>	0	4	0	3	4	5	3	4	5	3	0	4	0	4
	VR Name	<i>Target</i>	6	7	5	6	8	7	6	8	9	7	6	8	4	8
	<i>Purevdorj</i>	<i>Final</i>														
8	HCG															
	<i>Buyant</i>	<i>Initial</i>	4	0		0		1	1		0	0		1		0
	VR Name	<i>Target</i>	7	8	5	9		8	8		5	6				8
	<i>Gilegsaikhan</i>	<i>Final</i>														
9	HCG															
	<i>Bayanburd</i>	<i>Initial</i>	0	5	0	2	4	4	2	5	5	7	0	4	0	4
	VR Name	<i>Target</i>	5	7	6	4	7	8	6	8	7	10	6	7	3	7
	<i>Olziiduuren</i>	<i>Final</i>														

CONCLUSIONS

This workshop was well-received by participants. However, there is much work to accomplish during the next 12 months. Monitoring forms will be distributed shortly to the 14 most active Herder Community Groups. The information VRs collect about impacts to wildlife and natural resources in their community-managed areas will be mapped and presented during a follow up workshop in January or February of 2008. It is important to ensure that VRs are in contact with local *soum* inspectors so they can help facilitate more effective enforcement of wildlife hunting laws in their areas. It will also be essential to design a database where information about impacts to wildlife can be stored and summarized, and to share this information with agencies whose responsibility it is to protect wildlife. HCGs are keen to manage the wildlife and natural resources in their community-managed areas, part of which involves developing a management plan. WCS Mongolia will continue to work with groups to accomplish these tasks.



Appendix I: Workshop Letter of Invitation



ЗЭРЛЭГ АМЬТДЫГ ХАМГААЛАХ НИЙГЭМЛЭГ (ЗАХН)-ИЙН МОНГОЛ ДАХЬ ХӨТӨЛБӨРИЙН ГАЗАР

30 August 2007

Dear Herder Community Group:

The WCS Mongolia Program would like to invite you to a workshop that will be held on September 27th and 28th in Choibalsan, Dornod. Dr. Antony Lynam, WCS regional adviser, and other ranger trainers will speak during the first day of the workshop. The workshop will focus on presentations, discussions and activities on the following topics:

- 1) What volunteer rangers can do to protect wildlife in their areas;
- 2) Specific methods for wildlife monitoring; and
- 3) Steps for writing a management plan.

In July, three herder community groups were selected for closer cooperation with the WCS Mongolia Program based on goals and objectives they submitted for pasture and wildlife management and protection on their lands. The Bayan Ukhaa, Yuson erdene and Zegstei нөхөрлөлд -s were selected because they submitted well thought-out goals and objectives, and were located in areas where significant conservation issues exist. These groups will speak during the workshop about their cooperation with WCS Mongolia and progress they have made with wildlife monitoring in their areas.

In addition to the workshop, WCS staff will meet with groups individually during the afternoon of the 28th and 29th. Community groups are encouraged to sign-up for a meeting with the WCS Mongolia Program staff during an informal reception on the evening of the 26th at the To Van hotel. Refreshments will be provided.

We hope that both herder community group leaders and volunteer rangers can attend this workshop. WCS Mongolia will reimburse individuals for any travel costs they incur. However, we are unable to provide funds for lodging for this workshop, so please make these arrangements on your own.

We look forward to seeing all of you at the workshop and hearing about your progress with pasture and wildlife management, protection and monitoring in your areas.

.....
Анн Винтерс
Байгаль Хамгааллын Биологич

.....
Date

.....
С. Болорцэцэг
Байгаль Хамгааллын Биологич

.....
Date

PARTICIPANT QUESTIONNAIRE

Volunteer Ranger Name: _____ Date: _____

Herder Community Group: _____

Please take a moment to answer these questions; your answers will help us to fine-tune the training course to meet your needs. Feel free to add comments or suggestions on any topics not covered by the questions.

Circle the appropriate answers to each of the questions.

1. Your expectations of this course. I think I am going to learn about the following subjects;

- a. how volunteer rangers can implement the law
- b. how to conduct patrols and do enforcement
- c. how to stop illegal wildlife trade
- d. how to monitor wildlife

2. Training level

2.1 Official wildlife training experience

- a. no previous training
- b. have attended government training
- c. have attended training run by outside agencies
- d. have attended overseas training
- e. have received informal training run by park staff

2.2 If you have received wildlife training before, what kind of training was it?

.....

.....

.....

.....

2.3 Navigation skills.

- a. I have never been trained in use of map and compass
- b. I have received basic training in used of map and compass
- c. I have received training in map and compass

if you responded b or c where and when did you undergo training?

.....

2.4 Wildlife identification and basic survey

- a. never received training in this subject
- b. received basic
- c. received advanced training

if you responded b or c where and when did you undergo training?

.....

2.5 Patrol reporting and enforcement

- a. I have never received training in patrol and reporting techniques
- b. I have received basic training in patrol and reporting techniques
- c. I have received advanced training in patrol and reporting techniques

if you responded b or c where and when did you undergo training?

.....

Other comments

.....

.....

.....

.....

PLEASE RETURN COMPLETED QUESTIONNAIRES TO YOUR INSTRUCTOR.
THANK YOU!

The Training Team

Appendix III

Test on Wildlife Hunting Regulations

VR Name: _____

Date: _____

HCG Name: _____

Please answer the following questions! We will carefully consider each answer you give. Through this test we hope to improve your knowledge and skills.

1. A person traps a badger on October 15th and possesses a household permit.

- e. Legal
- f. Illegal
- g. Hunting is prohibited for a certain time period
- h. Can not say

Explain:

.....
.....

2. Hunting Mongolian gazelle in April with a household permit.

- a. Legal
- b. Illegal
- c. Hunting is prohibited for a certain time period
- d. Can not say

Explain:

.....
.....

3. Trapping marmots from September to October with a household permit.

- a. Legal
- b. Illegal
- c. Hunting is prohibited for a certain time period
- d. Can not say

Explain:

.....
.....

4. Trapping 2 red fox and 3 Corsac fox in January with a household permit.

- a. Legal
- b. Illegal
- c. Hunting is prohibited for a certain time period
- d. Can not say

Explain:

.....

.....

5. Border guards hunting roe deer in November with a commercial permit.

- a. Legal
- b. Illegal
- c. Hunting is prohibited for a certain time period
- d. Can not say

Explain:

.....

6. A foreigner hunting wild boar for their tusks in November with a special use permit.

- a. Legal
- b. Illegal
- c. Hunting is prohibited for a certain time period
- d. Can not say

Explain:

.....

.....

7. The Mongolian government decides to export goitered gazelle meat to the international market under a commercial permit in 2007.

- a. Legal
- b. Illegal
- c. Hunting is prohibited for a certain time period
- d. Can not say

Explain:

.....

.....

8. A researcher traps 3 lynx for genetic samples with a special use permit for research.

- a. Legal
- b. Illegal
- c. Hunting is prohibited for a certain time period
- d. Can not say

Explain:

.....

.....

9. Who certifies contracts and gives permission for special use permits for hunting game animals?

- a. Mongolian Government
- b. Mongolian Parliament
- c. Ministry of Nature and Environment
- d. Can not say

Explain:

.....

.....

10. Who can possess a hunting permit?

- a. A Mongolian citizen.
- b. Someone who has studied the Environmental Law, has a firearm permit, and permission to hunt wildlife.
- c. Someone who has studied the Environmental Law, has a firearm permit, is 18 or older, and is a Mongolian citizen.
- d. Can not say

Explain:

.....

.....

Thanks for completing the test.

- The Training Team

Appendix IV

VOLUNTEER RANGER EVALUATION

Name: _____ Date: _____

HCG Name: _____ Has received ID card?: _____

No Ability	Minimum Ability			Intermediate Ability			Advanced Ability			Expert
0	1	2	3	4	5	6	7	8	9	10
<i>No experience, completely unfamiliar with the task</i>	<i>Cannot correctly perform task without supervision, mistakes common</i>			<i>Performs task independently, but requires supervision to do so correctly, makes some mistakes</i>			<i>Has performed task independently a number of times, makes very few mistakes</i>			<i>Could instruct others on completion of this task, can troubleshoot</i>

SKILL	LEVEL OF ABILITY		
	Initial	Target	Final
1. Knows and understands duties of a Volunteer Ranger.			
2. Understands what wildlife and natural resource impacts to monitor.			
3. Understands how to use the monitoring form.			
4. Has created a schedule and knows when to do patrols.			
5. Understands the difference between a goal and objective.			
6. Understands how to conduct wildlife surveys.			
7. Understands and can perform scan sampling for marmots.			
8. Meets with HCG members and educates them about wildlife and natural resource management and protection issues.			
9. Organizes and involves citizens to combat against law violations.			
10. Writes reports about impacts to wildlife and natural resources.			
11. Presents reports to the Soum Citizens Representative Khural and aimag Environmental Agency.			
12. Works closely with non-governmental organizations operating in the field of nature protection.			
13. Has established waste disposal points in their area.			
14. Works closely with the soum inspector and soum ranger.			

Appendix V

Herder Community Group - WILDLIFE & NR IMPACTS REPORTING FORM

1. GENERAL INFORMATION

Observer's Name: Date:

Location:

Waypoint 1 : _____ Lat: N Long: E

Time: START END

Habitat:

2. TRANSPORTATION

Type: on foot; horseback; motorcycle; car; lorry; boat; other:

Lisence number/brand:

Make & model: Color:

3. PEOPLE

Number of travelers: MALES FEMALES

Name of leader/driver:

Identification Info:
passport#, driver's licence#, etc.

Person's appearance:

Purpose of Travel:

From: To:

NOTES:

4. WILDLIFE, PLANTS & OTHER NATURAL RESOURCES

Species:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Age:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sex (M/F):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
¹ Carcasses:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Carcass age:(# days)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
¹ Hides/meat:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Weight (kg):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Notes:	<input type="text"/>			

5. WEAPONS

	FIREARM	KNIFE	TRAP	NET	FISHING POLE	OTHER
Number:	automatic rifle	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	single action rifle	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	muzzle loader	<input type="text"/>	Length: <input type="text"/>	Type: <input type="text"/>	Type: <input type="text"/>	Type: <input type="text"/>
	hand gun	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Owner's certificate:	<input type="text"/>					
Heard/Observed:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Notes:	<input type="text"/>					

6. CAMP

occupied; recently abandoned; old, abandoned; unknown; other:

Violation: YES NO WHAT, WHEN

People present: YES NO ¹

Equipment present:

NOTES:

Appendix VI

Workshop Notes & Suggestions

Participants did not fully understand the task put to them during the first breakout session of the workshop. Instead of listing impacts volunteer rangers might document, most groups listed threats to natural resources and different problems they had encountered in their areas. In the future, it would be useful to offer a few examples of the type of information that facilitators are looking for, and to link these back to volunteer ranger responsibilities. It would also have been useful to present a 'road map' for our logic in performing this exercise. We had hoped to begin with listing impacts that a volunteer ranger might record, then develop a form on which to record those impacts, and to finish with using that form to record information about impacts that were illustrated by staged examples of natural resource use violations.

To bring the workshop back on track, we decided to observe staged examples of natural resource use violations before attempting to create a reporting form. This activity effectively illustrated what information is most useful to record when documenting impacts to wildlife and other natural resources. Afterwards, we were able to break participants up into six groups, each of who created a part of the draft reporting form.

In general, much of the discussion during the workshop was off topic and participants felt the need to make long speeches and engage in detailed discussion when our goals were relatively simple. During future workshops it would be useful to present the goals and expected outputs of the workshop visually during the opening, and to refer to the visual throughout the workshop to keep discussions and activities on track. In addition, it may be useful to somehow limit participant speeches.

INFORMAL PRIVATE MEETINGS: *Requests and proposals from HCGs*

Environmental conservation of "Toson Khulstai" Natural Resource Area:

1. What to do when encountered with a poaching that took off his car of national license, for number of car plate?
2. Herders from other soums move in to others' area with their life stocks in the fall or winter, in that case what to do?

Chukh Lake Buffer zone consulate member Chinbat, Amaraa /Ranger of Toson khulstai NR area/

1. As a VR, we reveal traps often. It would be nice if there is a concentive system for that, for trap and its kind are more impact to the wildlife- it can kill marmots of whole burrows.
2. Especially next time governor's change for hunting law, because trap is very dangerous so next time never use it
3. VR need a picture of plants that are prone to poaching and are included in the list of rare and very rare species.

Leader of Daguur Shines HCG, Damdindorj

1. There is illegal trading with wildlife fur, organs or products at the black market, ideally it needs banning. Can you (addressing to the training organizers) please tell that to the higher authority?
2. We had fire in Dashbalbar soum territory, every year between 1990-1999, i.e 7 years consecutively and last year again there was a fire. We believe it is caused by human accidentally, usually from Russia, for various reasons, for example to burn natural garbage such as straw etc: There was a memorandum of understanding made between

- Russia and Mongolia, and if possible can you find and see the details of the mutual agreement in the paper for us, please?
3. Also can you find out the price of fire extinguishers and where to buy (available) that?
 4. Soum environmental and local government officials need training on wildlife and natural resource protection. Because they are being involved in the poaching.

Bayan Ukhaa HCG / Ugtam NRA/

1. Wolf is allowed for hunting for household need, according to the law, but what about hunting in the territory of the SPA?
2. Can you please find out for us, the price of irrigation system and where available?

Zegstei HCG

1. I wonder what is written in the law about pasture.
2. Where to get VR's identification and a nametag?
3. We want to know and find the law about rehabilitation and show that to the mining entity or individuals.
4. We want to know if there is any organization or people who fight against mining impacts, please find out information about that for us?
5. If possible please seek opportunities to publish an article in the "People" newspaper or radio broadcasting via the national radio, countryside-people usually listen to the radio.

Moilt HCG

1. What are world practices of reintroducing marmot in the spring time when it mating period for the species?

Baga Khuree HCG

1. Can VR prevent or prohibit poaching outside his HCG territory or is he to do so only within the HCG area?

Delgermunh HCG

1. Can HCG designate 2 VR if the HCG owns bigger land than it is appointed in the law?
2. We want to find a law where it says about how HCG is to be established, and what rules to be followed.
3. Does VR have to have a completed secondary school education?
4. Who do we have to report to? For VR of HCG that locates in the territory of SPA, whom does he have to report to?

Other proposals and requests

- Manual for gardening of fruit and vegetables
- Movies about nature and environmental protection or wildlife conservation for their local information center.

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