

Exchange Program Strengthens Relationships between Mongolia, Russia, and the United States



Exchange participants (l to r) Nyamchuu B., Lena Chernibrovkina, Paul Robinson, Sendema Shirapova, Narangerel Rinchin, and our driver (name unknown) stand before the White Swan totem, a powerful cultural symbol for many of the indigenous communities in the Buryat Republic of Russia and Mongolia.

For the fourth year running, Southwest Research and Information Center (SRIC) coordinated an international exchange focused on resource management. The 2008 exchange program included activities in the U.S. Southwest and in the Buryat Republic and Mongolia focused on resource management issues in and around

mining company representatives and regulatory agency staff. Presentations included an overview of resource conservation strategies, options for development of mineral revenue-based permanent funds in Buryatia, and the environmental impact of mines in Mongolia.

The 2008 Exchange began in August in Buryatia with activities organized by Sendema Shirapova and Lena Chernibrovkina, who had coordinated previous exchanges, staff at the Buryat Center for Public Environmental Expertiza program of BRO-Baikal. Mongolian participants in the Buryat portion of the exchange included Narangerel Rinchin, PhD, director of the Center for Citizenship Education in Mongolia and B. Nyamchuu,

of Lake Baikal through the meadows and mountains of Tunka National Park and beyond the pavement into sparsely settled Okinsky Rayon (County) where we met Alexei. Okinsky Rayon is named for the Oka River, which drains the Eastern Sayan Mountain Range. While in Okinsky, the group visited the Khushir gold mine overlooking the Oka River.

In addition to his teaching, Alexei is vice-president of the Soyot Association representing the Soyot ethnic group, indigenous descendants of reindeer-herding people who have lived in the mountains of western Buryatia for generations. Little-known outside Okinsky Rayon, the Soyot people are seeking to increase their recognition in Russia as a distinct indigenous community. Alexei led the exchange group to several Soyot cultural areas

including prayer and ritual sites and a plateau used for annual gatherings of Soyot and Buryat people and their relatives from nearby regions. These sites overlook a waterfall that drops into the Oka River from the base of the mountain containing the Kushir Gold deposit.

From the prayer shelter at the waterfall, participants could see the mine and access roads, mountains and hills

into the mountain. The exchange delegation's visit to the mine was the first time local or regional civil society representatives had seen the current operation up close. The mine camp, including housing, water treatment, machine shops, and laboratory facilities, is located in a transition zone between trees and grasses. The mine access road zig-zags up through a larch and birch forest to the mine site located above treeline.

Mine development is currently focused on blasting an adit — a horizontal tunnel — into the mountain to assess the extent of gold ore and to allow bulk sampling for metallurgical tests needed to design the gold recovery facility. While blasting the adit and sampling the ore, the mine company is conducting surface exploration by trenching and borehole drilling across its lease area to identify additional gold deposits.

Community concerns regarding the gold mining project include uncertainty about its effects on local livestock-based communities, impacts and benefits the region can expect from the operation, siting of gold process and waste disposal facilities, and whether gold mining will deter ecotourism centered on the spectacular environment and prominent cultural resources in Okinsky. Transportation is also an issue, since the only route to Kushir for trucks carrying cyanide and

other hazardous materials is through Okinsky Rayon along a rugged and unpaved road that passes through Orlik and other local communities.

Our return tour from Orlik to Ulan-Ude included a stop at Lake Baikal for a picnic. We got our feet wet, made ritual offerings, and basked in the vastness

and beauty of what is considered a "sacred sea" by Buryats, Mongolians, and many Russians.

At Ulan-Ude, Paul Robinson made a presentation at a seminar hosted by BRO-Baikal at the Buryat Geological Institute to discuss opportunities for nature protection through conservation of mineral deposits and mechanisms for permanent funds to be created from mineral incomes. These issues are of major importance to Buryatia and the focus of debate in the



It is becoming a common site to see solar panels providing power to traditional homes called "ger" in Mongolia.

the Lake Baikal watershed in Central Asia. The program was developed using a grant from the Trust for Mutual Understanding in New York City in response to recommendations from SRIC's lead partners, the Buryat Regional Organization on Baikal (BRO-Baikal) based in Ulan-Ude, Buryatia Republic, Russia, and the Center for Citizenship Education (CCE), based in Ulaan Baatar, Mongolia. The goals of the international exchange are to reduce the environmental and social impacts of mining by:

- 1) increasing dialogue among regulators, nongovernmental organizations (NGOs), and mining companies,
- 2) enhancing Russian and Mongolian NGO capacities through training and youth involvement, and
- 3) sponsoring public seminars to heighten public, media, and scientific interest in this goal.

The logistic challenges of organizing programs for participants shuttling between three countries were daunting. This itinerary included a one-week trip to the Buryat Republic of Russia, a two-week tour through central and northern Mongolia, and a ten-day excursion to New Mexico, Nevada, and California. The program successfully expanded and deepened links between Mongolian and Buryat organizations as well as between organizations in those countries and their U.S. colleagues. Country representatives were able to visit mines and to establish dialogues with



Exchange participants standing on the tailings distribution pipeline at the Chevron molybdenum complex learn about tailings management.

research coordinator for the Ardyn Elch Movement, a civil society organization in the Yeroo River region of north-central Mongolia affected by placer gold mining since the early 1900s. The U.S. participant in the group was Paul Robinson, research director at SRIC and exchange coordinator. In addition to Sendema and Lena, Russian participants in the Buryat delegation included Alexei Papaev, PhD, a geography teacher in Orlik in western Buryatia, Sergei Shapkaev, director of BRO-Baikal, and Vladimir Belogolovo, coordinator of the BRO-Baikal ROLL (Repeat of Lessons Learned) project.

Packed into a minivan, the exchange group traveled from Ulan-Ude to Orlik in the Eastern Sayan Mountains west of Lake Baikal. This 12-hour drive took the group along the Selenga River — the source of 60% of the water entering Lake Baikal. We then followed the south shore



Large bucket dredges are used to extract gold placer ore at gold mines in the floodplain of the Tuul River in Mongolia.

that feature in the myths and legends of the Soyot and Buryat people, and the plateau where a gold processing and waste disposal facility are likely to be built if the mine proceeds. The plateau around the waterfall provides rich, green pasture for the cattle and horses of local livestock herders.

Though the Kushir gold deposit was identified decades ago during the Soviet era, recent permits allow expanded mine development, including a tunnel to sample ore that delves more than 1200 meters

republic's Khural (parliament). Participants in the seminar included senior staff of the Environmental Monitoring Agency of the Ministry of Natural Resources, which is the main environmental protection agency in Russia, and technical advisors to the Khural. Participants in the seminar plan to continue to explore resource conservation options in the future.

After visiting Buryatia, the exchange program shifted to Mongolia as SRIC's Paul Robinson and Galina Anosova, founder of the Buryat Center for Public Environmental Expertiza, traveled by train to Ulaan Baatar, Mongolia's capital city. Since Narangerel Rinchin from the Center for Citizenship Education (CCE) in Mongolia was also asked to help coordinate a Mongolian community and mining tour initiated by Golden Gate Friends of Mongolia (GGFOM), she invited the exchange group to join the GGFOM tour. As with the other portions of the 2008 exchange, activities in Mongolia focused



Waves wash up on the shore of Lake Baikal, the Sacred Sea.

on the twin goals of increasing local awareness of the environmental and cultural impacts of mining while enhancing dialogue among civil society groups, mining companies, and regulators.

Mongolian participants in this portion of the exchange, in addition to the CCE and the Ardyn Elch Movement, included:

- Tudevdorj J. of the Salkin Sardin Movement in the southwest Mongolian Aimag (province),
- Munkhbayar Ts. of the Onggi River Movement in Central Mongolia,
- Enkhtur D. of the Toson-Zaamar Tuul River Movement in Tuv Aimag,
- Tserenkhand Ya. of the Angir Nuden Munduuhei Movement in Uvs Aimag in northwest Mongolia;
- Bayaraa G. of the Khuder River Movement in Selenge Aimag near Yeroo
- Zagazusem P. of the Nature Protection-Rural Development in Uvurkhangai Aimag in central Mongolia
- Ono Ganzorig, GGFOM coordinator.

Exchange funds also supported participation of S. Sukhbat, a hydrologist from the Mongolian Water Authority in the Ministry of Nature Protection and Environment involved in mine permitting. Sukhbat was particularly valuable to the exchange because of his knowledge of Mongolian water management laws and operational aspects of many of the mines observed during the tour.

The Mongolian portion of the tour visited mine sites along tributaries of the Selenga River including:

- Tuul River — the largest placer gold mining district in Mongolia,
- Orkhon River — home to the cultural legacy of Mongolian and Turkic leaders for more than 1,000 years, and
- Yeroo River — where a re-mining of century-old placer gold mines has been joined by a large Chinese-owned-and-operated iron ore mine.

The visits to mines along the Tuul River and in the headwaters of the Orkhon were hosted by the operating mine companies in collaboration with local civil society organizations. Layton Croft, executive vice president for corporate affairs and social responsibility at Ivanhoe Mines, developer of the largest mineral deposit in Mongolia, made a presentation to the GGFOM group in Ulaan Baatar and joined the group for the Tuul River mine tour.

The Mongolian component of our international excursion ended in Yeroo, where the group was received by the Ardyn Elch Movement, host for a portion of the 2007 exchange (see *Voices from the Earth*, Winter 2007, Volume 8, No. 4). The stay in Yeroo included a final seminar and visits to important shrines and springs near a newly opened iron ore mine that emerged as a significant local concern. The Ardyn Elch Movement raised



Women gather water from a stream downgradient from the Chinese-owned and operated iron ore mine in Yeroo Soum (County) in northern Mongolia.

issues about the lack of effective enforcement of legal requirements regarding reclamation, water resources protection, and income from mines operated for the export of raw materials.

The reputation of Mongolians as warm and generous hosts was reinforced by the hospitality shown the exchange group and GGFOM participants in the communities visited. The tour culminated in Yeroo with a fabulous spread of locally grown food and entertainment by local youth groups singing and playing the traditional Mongolian violin — the horsehead fiddle.

Before leaving Mongolia, Paul presented a seminar for the Mongolian Center for Human Rights and Development (CHRD), a public interest environmental law center protecting the rights of communities affected by resource development. The seminar focused on current legal actions to address damage to water supplies and grazing land caused by mines on the Tuul and Onggi river.

The U.S. segment of the exchange program convened in November, two

months after the end of the Mongolian portion. Activities included several mine visits, tours of renewable energy production sites, and meetings with Navajo people affected by mining in New Mexico.

Russian participants were:

- Alexei Papaev from Orlik,
- Zhargalma Mukhanaeva — principal of a school in the Buryat Republic, and
- Natalya Tumureeva, ecological engineering instructor at the Far East Siberian State Technological University in Ulan-Ude.

Mongolian participants were:

- Narangerel Rinchin, director of Center for Citizenship Education in Mongolia,
- Narmandakh Bold, director of the Ardyn Elch Movement, a civil society organization in Yeroo, and
- Bat-Amgalan Sandag, Mongolian federal environmental inspector of mines in the Yeroo River watershed.

U.S. participants included:

- Julie Franklin, eco-toxicologist at the Biological Diversity Institute in Maine,
- Gary Cook — economist and director of the Baikalwatch project of the Earth Island Institute in California, and
- Paul Robinson of SRIC.

With an eye toward mining impacts on the environment and culture, the exchange program visited the inactive and reclaimed Pecos lead-zinc mine and mill complex and the active Questa molybdenum mine and mill complex (operated by Chevron Mineral, parent company of Molycorp, which built the complex) in northern New Mexico. The site visits allowed exchange participants to learn about mine reclamation methods not yet in use in Russia or Mongolia. The Pecos tour was



Exchange participants tour the 64 megawatt 400-acre Nevada Solar One power plant south of Las Vegas, NV. (L to R): Alexei Papaev, Natalya Tumureeva, Zhargalma Mukhanaeva, Narangerel Rinchin, Bat-Amgalan S., Paul Robinson, and Narmandakh B.

led by a technical staff person from the New Mexico Environment Department, which regulated the reclamation effort and is responsible for post-reclamation monitoring and maintenance activities. The Pecos complex gave insight into what a site looks like 10–15 years after completion of reclamation and taught participants about water collection and treatment, slope stabilization, revegetation, and stream diversion technologies. The Questa site tour was conducted by Chevron staff

and featured test plots evaluating how varying depths of soil cover (above waste rock) affect vegetation, seepage collection systems, and steep slope regrading.

To raise awareness of renewable energy technology, the exchange program toured the Aragonne Mesa wind farm of 90 one-megawatt wind turbines atop a mesa in eastern New Mexico and visited the Nevada Solar One facility, which generates 80 megawatts of power from 400 acres of parabolic solar panels south of Las Vegas, Nevada. The desert of the U.S. Southwest looks so much like Mongolia and the steppes of Russia that exchange participants could easily envision those commercial-scale renewable energy projects being built in their homelands.

A highlight of the U.S. portion of the exchange tour was a visit to the homestead of the Teddy Nez family. Teddy is a Navajo tribal member and colleague at SRIC who lives next to unreclaimed waste piles from a uranium mine near Churchrock, New Mexico. Teddy presented a workshop on his family's experience living next to an unreclaimed mine, and he outlined efforts begun in the last three years to clean up the problem from the mine, which closed more than 25 years ago. Teddy also provided the Mongolian and Buryat visitors with a fine mutton stew and frybread meal that the international guests agreed was at least as good as the mutton stew and fried dough they were used to eating back home.

The international tour ended in San Francisco with an evaluation and a discussion of follow-up activities. Participants acknowledged the educational value of the exchange, which illustrated U.S. mining and renewable energy technologies that are still very rare in their home countries. Everyone expressed strong interest in the continuation of multinational exchanges because of their educational and communication benefits, and it was suggested that future years emphasize youth involvement. The trinational exchanges have enhanced communication across the

Mongolian-Russian border in the Lake Baikal watershed and have heightened awareness of environmental issues around the world.

The cross-cultural program successfully fostered communication among civil society, industry, and regulators about environmental management issues and it increased awareness about complex technical issues affecting communities and the environ-

ment, but its strongest legacy is the relationships established among the participants. The shared experiences and friendships created during the exchanges broaden understanding among people with separate traditions and languages (but common values) and provide strong foundations for future collaborations regarding protection and conservation of nature and traditional cultures in a rapidly changing world. 🌿