

## Background Information on the Altai Republic

Nestled in the “Golden Mountains of Altai” in southern Siberia, the Republic of Altai is a stunningly beautiful region of Russia with extraordinarily high biodiversity. The Republic borders Mongolia, China, and Kazakhstan on the south and covers 93,000 square kilometers – roughly the size of the state of Indiana. The varied terrain of the Republic includes temperate and boreal forests, dramatic high alpine landscapes including the highest mountain in Siberia, rich agricultural lands, the wild and scenic Katun River, and the remote and sacred Ukok Plateau.

The Republic is roughly diamond-shaped, about 250 miles north to south and east to west, and lies at the southern edge of the immense west Siberian plain, home to large scale agriculture, mines, factories, and cities. The third-largest city in Russia, Novosibirsk, is a five hour drive from the Altai, on a highway which continues south through the Altai to the Mongolian border and constitutes the main transportation link between west Siberia and Mongolia. There are a number of other smaller cities on the plain just to the north which still have populations in the hundreds of thousands.

The Altai mountains form a dizzying alpine ecosystem, dotted with alpine lakes and glaciers. The highest mountain is Mount Belukha, a 4500 meter sacred mountain located along the southern border with Kazakhstan . The Republic’s largest lake is Lake Teletskoye, which is surrounded by ancient Siberian pine forests. In the south, the landscape transforms into large steppe plateaus with rich biodiversity and, in some places, permafrost tundra.



Lake Akkem, Mt. Belukha



Chuisky Steppe

Forests cover most of the Republic’s northerly territory. As the hills of the north become the mountains of the south, rainfall decreases as elevation increases; trees are seen only on north slopes and eventually disappear altogether in many places. Lack of winter snow allows wild and domestic animals to graze all year.

The highest settlements are near the Mongolian border, on the Chuisky Steppe, which lies at 6000 feet and receives ten

inches of rain a year even though it lies between high mountains covered with glaciers and eternal snows.

The two rivers flowing north out of the Republic, the Katun and Biya, spring from the glaciers of Mount Belukha and Teletskoye Lake respectively. The Katun and Biya merge to become the Ob River, which ultimately joins with the Irtysh River to form the longest river in Russia before it flows into the Arctic Ocean.

With its small population of around 200,000 people, one quarter of whom live in the capital Gorno-Altai, and limited infrastructure – including less than 3,200 kilometers (2,000 miles) of paved roads throughout the entire region,<sup>1</sup> it is no surprise that the Republic has a wealth of biodiversity. Perhaps most well known is the snow leopard, a large cat whose habitat once extended across much of Central Asia but who is now found primarily in high alpine areas of in Tibet and China.<sup>2</sup> Snow leopards are highly endangered, threatened by loss of habitat, decreased prey access, and poaching. An elusive creature, the snow leopard spends most of its time in alpine zones and is difficult to study and track.

Other key predator species found in the Altai Republic include wolves, fox, lynx, and manul cat. Brown bears, wild boar, wolverines, and other larger mammals can be found here as well. Perhaps the best-known ungulate species is the Argali mountain sheep, food for snow leopards. The Argali sheep is also highly endangered – only an estimated 650 sheep remain in Russia's Altai. The sheep's twisting horns make it a prized target of poachers and other trophy hunters. Other important hoofed mammals include maral deer, a species that occurs naturally, but is also farmed for its horns and meat, Siberian ibex, and roe deer. In addition to these species, rich concentrations of raptors and other birds can be found in the region.



The Republic of Altai's biodiversity also extends to the plant world. The Altai is well known for its medicinal herbs, which occur in the wild and are also be cultivated. Golden root is a popular medicinal plant sought

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<sup>1</sup> Compared to 18,500 kilometers of highways *alone* in Indiana!

<sup>2</sup> According to Snow Leopard Trust, snow leopard is still found in 12 countries, with largest numbers in China, India, Kyrgyzstan, Mongolia and Pakistan. China (Xinjiang) and Mongolia have the largest habitat.

after throughout Asia. Many herbal teas, roots, berries, honeys, and non-timber forest products such as Siberian pine nuts are collected and sold nationally across Russia as well as in Asia. South Korea is particularly interested in maral deer medicinal products and much of the horn production is exported directly to Korea.

Much of the Altai's rich environment is also a working landscape, where subsistence farmers and livestock herders have lived in sustainable coexistence with nature for hundreds or thousands of years. High and dry steppe and pasture lands in the alpine south provide vast open landscapes used for seasonal pasturing of cows, sheep, goats, horses, camels, and yaks.



Argut Valley

### **Ancient Peoples, Ancient Crossroads**

The Altaian people continue to make up about a third of the Republic's population and their traditional and spiritual culture continue to figure prominently in people's daily lifestyles, blending with the influence of Russian and post-Soviet culture.

The entire region has been home to both settled peoples and nomadic cultures for many millennia at the very least, although some scientists point to evidence indicating that humans have inhabited the region for 1-2 million years.<sup>3</sup> The Altai is an ancient crossroads that over time has been controlled by Scythians, Turks, Uigurs, Mongols, Altaians (also known historically as Oirots) and others. A great number of archaeological sites across the Republic contain petroglyphs, *kurgans*, and ancient artifacts, some dating as far back as the Stone and Bronze Ages.

Today, the Republic of Altai is primarily home to ethnic Russians (60%), native Altaians (30%), Kazakhs, and some smaller numbered peoples. The Altaians are a Turkic people who can be found in the greater Altai region. Originally nomadic, with Russian influence they became more settled, and today many live a partial subsistence lifestyle that includes hunting, gathering, and animal husbandry. The horse remains a primary means of transportation for many people. They speak Altaian, an ancient language parent to Turkish and other languages, and practice a mixture of Buddhism and shamanism, influenced in part by both animism and Russian Orthodoxy. Many mountains, rivers, lakes, and high elevation plateaus are considered sacred sites to the Altaians. Oftentimes, these cultural and spiritual protections go hand-in-hand with the interests of the government toward protecting the region's wildlife and natural resources.



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<sup>3</sup> Most well known perhaps is the Pazyryk Ice Princess, discovered in 1993 on the Ukok Plateau, and documented in the October 1994 *National Geographic*.

The Altai became a part of Russia about the time of the American Revolution. The 60,000 or so Altai people, sandwiched in their mountains between four large countries, were having neighbor problems with Mongolia and China, paying tribute to the former and fighting the latter. Joining the Russian Empire made geographic sense since the Republic's southern international border is almost perfectly congruent with the boundary of the Ob River watershed.

Today, the population in the north of the Republic is mostly Russian, while the traditional Altaian lands in the south, below the Seminsky Pass, are primarily Altaian.

### **Communities Protecting Nature**

Both the Altai Republic's government and its people have long recognized the importance of conserving and protecting the territory's natural wealth. Conservation efforts have led to an extensive system of protected areas designed to safeguard flora and fauna – approximately 25% of the Republic of Altai has some form of protected status.

Thanks to efforts by local and national environmentalists along with the Russian government, UNESCO designated the "Golden Mountains of Altai" as a World Heritage Site in 1998. This site, covering 16,000 square kilometers, includes three separate areas: Altaisky Zapovednik with a buffer zone around Lake Teletskoye; Katunsky Zapovednik with a buffer zone around Mount Belukha; and the Ukok Quiet Zone on the Ukok plateau. While this designation results in a certain degree of international attention and small amounts of financial support for ratified areas, it does not provide any specific protections, as the status is non-binding.

Within the network of protected areas, the two federally created **Zapovedniks**, or nature preserves, are the most protected, with highly restricted public access (no tourism, generally speaking) and a mission dedicated primarily to the study and protection of key species. Altaisky Zapovednik, almost two million acres, was one of the first zapovedniks, created 75 years ago along the Altai's eastern border with the adjoining Republics of Khakassia and Tuva.

**Zakazniks**, or wildlife refuges, afford the next level of protection and are often created to protect a particular species or to restrict against a particular land use for a specified period of time. Zakazniks allow certain commercial activities, such as logging, hunting of non-protected species, and livestock grazing, but protect a specific species.

At present, the Altai Republic has only one republic-level zakaznik:



Shavlinsky; Belukha in background

Shavlinsky, a protected area preserving habitat for snow leopards, ibex, and other high elevation steppe and alpine species. Other zakazniks existed until recent years, but the government has allowed their protected statuses to elapse after the initial allotted 10-year period.

The Republic of Altai also has a number of district-level **Nature Parks**. The Republic government allows the creation of nature parks in order to help district governments conserve nature while regulating tourism and other economic activities. Nature parks allow great latitude in the kinds of activities that can go on inside a given area, but still keep nature conservation as the primary goal.

Unlike the well-established federal zapovednik system, these regional Nature Parks are something new in Russia: the oldest, Belukha, was established only twelve years ago, and some newer ones, although functioning, have not completed the lengthy legal establishment process. Others are somewhere in process of establishment or expansion, or only proposed. Political power is devolving in post-Soviet Russia: local and regional governments are being given more power, and responsibility, in many ways, and these parks are a manifestation of that general trend.

Nature Parks are established for a variety of purposes, depending on locale. Nearly all incorporate lands used by local people: in some places farms and villages, in others, only seasonal grazing lands. Local assent and, preferably, support is needed for park establishment. Grass roots support has been increasing as the park system becomes increasingly functional. Parks are seen as a way to protect the precious lands and wildlife valued by Altai people, continue communal traditions of land use threatened by privatization, manage and profit from tourism, get a few government paid jobs, and generally increase local control over local destiny.



Argut Valley, proposed National Park

Conservationists active in the Altai, seeing opportunities in this time of great economic and political change and hoping to build on recent successes, have proposed a number of new protected areas in the last several years. Some proposals are making measurable progress, some not. This year's good news is that there is a new federal level protected area in process of creation, probably a national park, which will specifically protect principal areas of snow leopard habitat.

## Threats and Challenges

Despite local government officials' good intentions and general public support for nature protection and habitat conservation, the Altai Republic faces ongoing challenges and specific threats to the environment.

The Altai Republic has so far been spared damage caused by the large scale construction, industrialization, and resource extraction schemes seen elsewhere in Russia. The area lacks oil, gas, and coal. The mountainous, underdeveloped roads and lack of connection to the Russian rail system make national or international marketing of local minerals and timber difficult.

Some **challenges** to the Altai pose ongoing problems which, with sufficient response, can be managed or turned into opportunities:

### *“Wild Tourism”*

Tourism, including eco-tourism, adventure sports, hunting, fishing, health spas, and even science and agro-tourism, is an increasingly important part of the Republic of Altai's economy. Mount Belukha has been an alpinists' destination since the early 1900s. Russian and now international visitors have been flocking to the region in increasing numbers since that time, with over 800,000 tourists in 2007, according to the Republic's Ministry of Tourism. Mass tourism has arrived suddenly. In Soviet times, not many people had private cars and there were checkpoints on the roads. Russia is now the fastest growing car market in the world, the Siberian resource-based economy is prospering tremendously, and millions of people in grimy cities live within a day's drive of the Altai.



While this trend illustrates an excellent opportunity for the Republic of Altai to develop a non-agricultural revenue stream, many people are concerned that unorganized and unregulated tourism in the region is leading to problems in waste management, impacts to habitat and biodiversity, damage to sacred sites and archaeological sites, conflict with local land users, and increased risks of fire. In some localities, the accompanying development of lodging and recreational facilities is insufficiently regulated and controlled. Many builders and business owners circumvent land use and building codes by paying bribes or simply assuming already overwhelmed and under-funded government agencies will not be able to stop them.

These sorts of development problems are concentrated in the easily reached northern areas along principal roads, on the 50 or so miles of the Katun River immediately south of Gorno Altaisk and at the foot of Lake Teletskoye.

Complicating matters in the less developed south are the facts that Russian citizens are entitled to roam at will because land is state owned; the largely open, unfenced landscape facilitates easy access; and “pack it in, pack it out” camping ethics are unknown to most people.

The terms “ecotourism” and “green tourism” are used liberally in Russia, nowhere more so than in Altai, with no actual assurance that the impacts are ecologically sustainable or “green.” Many believe tourism to be a panacea for the Republic of Altai’s economic woes, but without the creation of an underlying tourism infrastructure and education for local people in providing services and management, it is likely that tourism will continue to cause increased problems along with economic benefits.

## Other threats and challenges

**Overgrazing** has traditionally been the principal environmental problem in the Republic of Altai. While nomadic herding has been the primary livelihood in the region for millennia, the Soviet quota system created vast herds of cattle, sheep, horses, and goats that overgrazed and damaged the landscape. Overgrazing eliminated much of the natural vegetation in some areas, resulting in erosion and desertification, loss of bird and small animal habitat, and the introduction of non-native species. Numbers of livestock crashed after the Soviet collapse: people ate their animals for sustenance since there was no longer any market system. Herds are now rebounding and it remains to be seen if the same problems will recur as the market economy develops, land is privatized, and semi-subsistence farm families increase their cash incomes through traditional agricultural pursuits or through other opportunities, such as the developing tourist trade.

The vast grazing areas of the Altai are traditionally unfenced, with one exception, Maral



Dickering for dinner (a live sheep)

deer farms, where the animals are kept in very large enclosures and their antlers cut off once a year for sale in the Korean and Chinese market for oriental medicine. The Altai product is thought to be the best in the world, so this is a highly profitable and growing business. Concerned citizens fear that the large enclosures may block migration patterns of abundant local wild animal species, but there is little data as yet.

Small-scale **mining** for gold, tungsten and other metals is active in the Republic, much of it with little regulatory oversight or enforcement.

Although Altai Republic **forests** are generally in good condition, with some recovering from Soviet overharvesting, poor use of timber resources is a common problem. Local forests are the primary source of building material and heating fuel in the countryside, but lack of milling equipment means that much high grade timber is used for the low grade purpose of heating fuel. Forest regeneration is also often adversely affected by the presence of grazing animals.

**Poaching** is also a problem, with two dimensions: rich outsiders and poor locals. Trophy hunters in helicopters fly in to remote areas to hunt all sorts of big game year round with no regard for seasonal restrictions or game refuge boundaries. Local subsistence hunters work on the ground, mostly in winter, and go after animals with value for fur or oriental medicine, some of which are endangered, such as snow leopard. Increased and more effective enforcement is needed for both kinds of poachers, and local poachers need better alternative economic opportunities.

**Land privatization** is progressing in Russia and will pose many new problems. Towns in desirable tourist areas are already changing as locals are bought out and their small houses torn down to make way for McMansions. Unsophisticated farmers may lose land which has always been theirs. Communal patterns of use may be altered. Access to the Altai's very extensive system of horse trails may be affected. Local governments may lose the ability to plan development and govern use unless they adopt zoning laws which respect environmental and sacred cultural values. Government agencies, such as the forestry department, which have exercised direct stewardship and control over resources, may become irrelevant or need to recast themselves as regulatory bodies.

There are also two currently proposed projects which pose **specific threats** and will have large impacts if implemented:

### ***The Ukok (Russia-China) Gas Pipeline***

Russian President Vladimir Putin traveled to China in early 2006 to explore trade relations. Upon his return to Moscow, Putin announced that a 2700 kilometer gas pipeline would be constructed from western Siberia to China's Xinjiang Province. Gazprom, Russia's federally controlled gas company, immediately began the planning process, while the Republic of Altai and surrounding communities reacted with trepidation. The pipeline, as proposed, will bisect the Altai Republic and pass over the fragile Ukok Plateau.

Although gasification of Altai is widely supported as a means of replacing coal, wood, and dried dung as heating fuels, a pipeline and its accompanying road that would open the border to China is a very serious environmental and cultural concern for the region. While China and Russia share a lengthy international border in the Russian Far East, at the other end of Mongolia, the shared border here is just 54 km wide at the southern edge of the roadless Ukok Plateau – and there are no border crossings. China, with its unquenchable thirst for resources, trade, and its plentiful cheap labor and goods, is vitally interested in gaining road access to western Siberia. Many local residents fear that

opening this border will lead to unregulated development, increased illegal logging, more poaching, and a flood of Chinese products crowding out Russian goods.

A large percentage of Republic citizens feel strongly that the pipeline should not be laid across the fragile tundra of the Ukok Plateau. The area is recognized locally, nationally, and internationally as worthy of protection. Local residents are extremely concerned about potential damage to the fragile tundra and are committed to preserving the archaeological sites and the sacred importance of the area.

Local, national, and international environmental groups have engaged in a major campaign to ensure that the pipeline will not be built through the Ukok Plateau. In October 2008, Gazprom announced that construction would be delayed indefinitely, citing high cost and environmental reasons.

### ***Katun River: Dam and development sprawl***

The Katun River is one of the last large, undammed and wild and scenic rivers in Russia. Flowing for over 680 kilometers, the Katun is famous for its glacier-blue waters, alpine valleys, and world-class kayaking and rafting. The Katun is also considered a sacred river to the local Altai people. The northern half of the Katun is especially accessible, and many tourists from across Russia and around the world visit it every year in increasing numbers. Unfortunately, its free-flowing and fast waters and its deep alpine valleys have made it a target for building a large hydroelectric dam.

The idea for a hydroelectric dam project on the Katun River dates back to the 1980s. The basis for this 180 meter-high dam was to promote development and provide peaking power to the west Siberian electrical grid. The late 80s and early 90s were a time of heightened citizen activity in Russia; protests and scientific research efforts managed to halt the project.

Just recently, Moscow-based financial interests have attempted to relaunch dam construction by securing land rights. Local communities, together with regional and national environmental groups, publicized this fact, and the project was delayed as a result; however, without vigilant support from grassroots groups and a few dedicated individuals, the dam could easily become a reality.

The current dam proposal would be to construct a 50-meter dam that would flood 770 hectares of land, destroy 3 bridges across the Katun River, several roads, and remove a large portion of land from the “commons” used by local residents. The dam would virtually eliminate much of the recreational tourism that the Republic of Altai is becoming famous for. Hundreds of small lodging facilities, hiking, camping, and water sport businesses rely on free flow of the Katun River.

## **Conservation Opportunities**

Despite the myriad challenges that the Republic of Altai and its people face, the region presents a great number of conservation opportunities that can promote environmental protection and sustainable development. Key opportunities include promoting creating and strengthening protected areas, alternative energy and green architecture technologies, strengthening anti-poaching and enforcement, ecotourism, community-based activism, effective land-use planning, legislative and policy reform, and capacity-building for local grassroots groups and individuals.

### ***Creating and Strengthening Protected Areas***

Despite the fact that a quarter of the Republic of Altai's territory is protected in some form, many of these protections are very weak. The system is very new and protected areas do not have the funding, staffing, or infrastructure to operate effectively. Nature park staff people have large responsibilities with inadequate resources. Each park, regardless of size, has a staff of five usually young people. Rangers generally have post secondary education, but not for the jobs they do, since there is no place to get training. The extent of park staff's legal responsibility and authority is often insufficient or unclear. The parks system is new enough that there is no central management structure and local staff are left to improvise. Communications are difficult; radios for field use don't exist, and the Altai telephone system does not even extend to the headquarters village of Argut Park. The parks are also expected figure out how to earn a portion of their annual budget from tourism or in other ways.

### ***Tourism and Cottage Industries***

Developing environmentally and culturally sustainable tourism can be an important source of revenue for the Republic of Altai. Tourism is already strong in the region and is straining existing infrastructure. Planned and existing tourist facilities need to be designed to have minimal impacts on the environment. Tourism provides additional benefits through jobs and other income for local people. In addition to direct provision of services, many people can be employed in manufacturing souvenirs, fine handicrafts, or specialty products like honey or Siberian pine nuts. All of these occupations can provide a valuable source of income for local residents in an area where unemployment is very high and salaries are very low.



[PE1]Can we put together a simple chart of existing PAs, including: name, size, status, purpose, existing infrastructure, and year created? We've deleted a lot of details about individual parks to tighten up this paper, but it would be good to include in a chart - either in the text or as an appendix.

[PE2]Add a sidebar on the Ukok Nature Park?

[PE3]Does anyone have a sense of how widespread the opposition actually is?

[PE4]This needs to be rewritten!!!

[PE5]Can we add detail about what the Fund did and how it was successful?